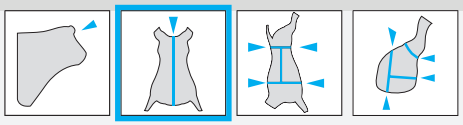
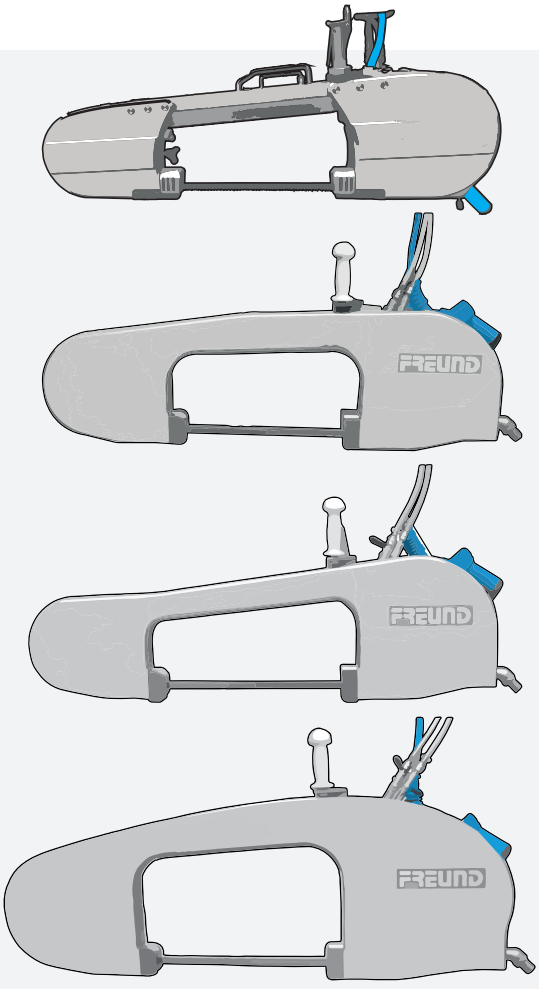
GERMAN QUALITY SLAUGHTER-TOOLS

OPERATING MANUAL SPLITTER-BAND-SAW

OPERATING MANUAL

Translation of original manual





SPLITTER-BAND-SAW MODELS

- SB46-24
- SB46-08
- SB49-08
- SB50-08

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Imprint

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Technical changes reserved

This operating manual was compiled with the greatest care. However if you notice incompleteness and/or mistakes, please inform us.

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EN

1 About this Manual

The SB46-08, SB49-08 and SB50-08 are also referred to as machine in this operating manual.

This operating manual was prepared to enable you to work quickly and safely with your machine.

The operating manual is a component of the machine and contains important recommendations, instructions and information.

- to enable safe and proper installation of the machine.
- to enable safe operation of the machine.
- to enable you to rectify simple faults yourself.
- for maintenance and cleaning.

Before you start operating the machine, read this entire operating manual thoroughly and carefully. It is imperative that you adhere to all written safety and warning information.

1.1 Target group

This operating manual is intended for operators of slaughtering facilities and the staff employed there, as well as for butchers and small businesses and their apprentices.

The operating manual is intended in particular for qualified personnel for assembly, installation, maintenance and servicing and for the cleaning staff.

The target group must have basic technical knowledge of how to handle the machine described herein.

1.2 Liability and warranty

All information and instructions regarding the operation and maintenance of the machine contained in this manual are provided to the best of our knowledge, taking into account our experience and know-how.

We will accept no liability for claims that extend beyond the scope of the warranty agreed in the main contract.

The original version of this operating manual was written in German. The translation was created with the best care and knowledge, but we assume no liability for translation errors. In case of doubt, the original German version always applies.

Exclusion of liability

We assume no liability and warranty:

- for wearing parts.
- for damage that occurs during slaughtering.

Furthermore, we expressly point out that we do not assume any liability for damages attributable to the following causes:

- not observing the information provided in this operating manual at all or to the necessary extent
- non-intended use
- unsuitable or improper handling
- spare parts or parts are used which have not been approved by FREUND Maschinenfabrik GmbH & Co. KG
- changing functions or materials on the machine without prior approval
- operating the machine incorrectly or operation by unqualified personnel
- safety devices being removed or manipulated
- cleaning the machine incorrectly or unprofessionally
- chemical or mechanical overloads
- maintenance and repair work not being carried out according to instructions or maintenance intervals not being adhered to

Modifications and/or adjustments to the machine are possible in certain cases. In such cases, prior written approval must be obtained from FREUND Maschinenfabrik GmbH & Co. KG – subsequently referred to as FREUND Maschinenfabrik.

1.3 Storing the operating manual

This operating manual is part of the machine and must be accessible at all times to the operating, maintenance and cleaning staff during the entire service life of the machine.

Therefore, always keep the operating manual near the machine's place of use.

1.4 Installation manuals and technical information

Purchasing a FREUND product gives you access to our online customer portal, FREUND Assistance (FA). FA will show you which spare parts are available for your product. You can send an order request directly to our sales team via FA. The requisite installation manuals for ensuring safe installation of your FREUND spare parts are also provided on the FA portal. You will also find the CE declarations for series machines on the FA portal.

The appendix to this operating manual and the FA portal contain technical information (TIN). TINs provide descriptions of the most important maintenance and operating steps for your machine.

1.5 Symbols and layout elements

1.5.1 Layout elements

- Enumerations

EN

➢ Individual, independent instruction step
Result arising from the instruction step

1. Step-by-step sequences in a specific order
2. The numbers indicate that the instruction steps follow each other
3. *Result arising from the instruction steps*

→ References to another chapter

Important additional information or special details regarding the use of the machine

Embedded warning note - shows type and source of the danger and the measure to avoid the danger

1.5.2 Safety signs

Warning signs



Warning of a danger point
Caution! At this point there is an increased danger to your safety.



Warning of dangerous electrical voltage
Danger to life from electric shocks to the body.



Warning of sharp-edged machine parts
Danger to the fingers and hands from cutting and striking.
Danger to limbs from cutting or severing and injuries to the body.



Warning of hand injuries
Danger to the hands and fingers from crushing due to the sinking or downward movements of machine parts.



Warning of rotating cutting tools
Danger to limbs from cutting or severing.



Danger of entanglement of loose clothing, jewellery and long hair due to the rotational movement.



Warning of hot surfaces
There is a danger of burns or scalds to body parts at the marked areas particularly to hands and fingers.



Warning of substances harmful to health and irritants
The information on the packaging and containers must be observed. Keep separate from food.



Warning of suspended load
Danger to the body from falling loads or machines.



Warning of hot water or steam
Danger to the hands and fingers from hot water or steam suddenly escaping.



Warning of cutting tools running-on or restarting

Danger to limbs from cutting or severing.

Danger of entanglement of loose clothing, jewellery and long hair due to the rotational movement.



Warning about horizontal rotary movements

Danger from unexpected machine impacts.

Danger to the fingers and hands from cutting or cutting off.

Prohibition signs



General prohibition signs

This sign is only used in connection with an additional sign or text, which describes the prohibition in greater detail.



High-pressure cleaners forbidden

Do not use high-pressure cleaners to clean the machine.

Parts of the machine could be damaged.



Avoid direct water contact

Avoid direct contact between the machine and water during cleaning. The machine is not waterproof.

Mandatory signs



Wear protective gloves

protect the hands against friction, abrasions, and cuts.



Wear safety spectacles

protect the eyes against flying parts, fragments and squirting liquids.



Wear hearing protection

protect hearing during operation of the machine.



Wear safety shoes or rubber boots

protect the feet against crushing, falling objects and guarantee secure support.



Wear a hair net or use a blade guard

protect long hair against entanglement in the machine.



Wear a protective apron

protects the body against humidity, blood and other fluids.



Wear head protection

protect the head against injuries from contact with oscillating objects and machines and during work beneath suspended loads.



Pull out the power plug

disconnect the machine from the mains power supply before all servicing, maintenance and cleaning work.



Comply with the operating manual
Be sure to observe the information and notes in the operating manual.



Video/Video playlist
Link to the videos and video playlists.



Separate spare parts list available
There is a separate spare parts list for this spare part.



Assembly manual available
There is an extra assembly manual for this spare part. In the assembly manual, work steps and required tools are shown.



Available as a set
The symbol indicates an article in a set. In a set, multiple related spare parts are available together. A border clarifies which parts are included.



Tool set available
To install this spare part, a special tool is required which can be ordered from us.

2 **Numbers in the grey field indicate the sequence of the steps**



Lubrication
Information about the amount and properties of the lubricant can be found in the operating manual.



Do not lubricate



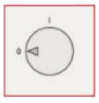
Glue
Parts must be glued; information about the type and properties of the glue can be found in the operating manual.



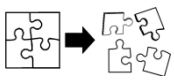
Cleaning
Instruction for an additional cleaning step



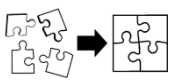
Power plug
Indicates connection of the machine to the power network.



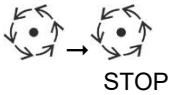
Releasing pressure
The machine must be depressurised prior to maintenance, servicing and cleaning.



Disassembly of the machine or assembly



Assembly of the machine or component
Indicates assembly of the machine following prior disassembly,
Carry out steps in the reverse order



Braking time of the machine

2 For your safety

This chapter describes the safety procedures and safety equipment. It is intended to make you aware of safety issues relating to use of the machine.

Safety instructions are for occupational health and safety and the prevention of accidents. Follow all the safety instructions described here and in the introduction to each section.

Be sure to read the sections on safety and the instructions they contain carefully before starting and using the machine.

2.1 Warnings

While you are using the machine, dangers may occur in certain situations or as a result of certain behaviours.

In this operating manual, warning information is given at the start of the respective chapter or life phase that involves danger of personal injury or property damage. They relate to all following actions of the chapter or life phase.

The precautions described must be observed to avoid the danger.

Structure of a warning



Signal word!

Type and source of the imminent danger.

Possible consequences of the danger if the warning is disregarded.

➢ Instructions for averting the danger.

Signal word	Meaning
DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
ATTENTION	Indicates a potentially hazardous situation which, if not avoided, could result in damage to the machine or the environment.

2.2 Obligations of the operator

In accordance with the rules and regulations of the employers' liability insurance association relating to the safety and health when working for a business in the meat industry (BGR 229), the site operator may only allow insured persons who are 18 years old and are familiar with the equipment and the handling of the equipment to operate slaughter equipment.

Young people over the age of 16 may be employed if this is required as part of their vocational training and if they have read and understood the safety regulations. Their safety must be ensured by a supervisor.

Risk assessment and protective measures

Before using work equipment, the operator must assess the risks that could occur (risk assessment) and derive necessary and suitable protective measures from this assessment. The presence of a CE marking on the work equipment does not release the operator from its obligation to carry out a risk assessment (German Regulation on Safety and Health - BetrSichV from 3 February 2015 Section 2 (3)(1)).

Operating instructions

Before employees use work equipment for the first time, the operator must provide them with written operating instructions for use of the work equipment in a form and language understandable to said employees and make them available in a suitable location (German Regulation on Safety and Health - BetrSichV 3 February 2015 Section 2 (12)(2)).

Operating staff

The site operator, as a higher level legal person, is responsible that the machine is used in accordance with its intended use and is responsible for training and for assigning authorized and qualified operating, maintenance and cleaning staff.

The site operator is obliged to ensure that each employee is properly trained in the operation of the machine.

Staff undergoing training may only work at the machine under the supervision of properly qualified staff.

Risk assessment

The site operator must inform operators of possible dangers, symptoms and preventative measures. Relevant occupational safety conditions have to be complied with.

Safety of the machine

The site operator must ensure that the machine is only operated and used in perfect and functional condition.

The site operator must ensure that safety devices are regularly serviced and checked for proper function.

Workplace

The operator must ensure that the lighting intensity is at least 500 lux.

The workplaces must be designed so that clearance of 1.5 m in width and 1 m in depth per person is provided so that each person can move around freely. All persons working at these workplaces must be able to maintain an upright and neutral body posture.

The material of the floor must be such that the risk of slipping on wet, greasy or soiled floors is reduced.

The workplace must comply with the national and regional hygiene and workplace regulations.

Escape routes
The operator must ensure that sufficient escape routes are available for the staff and that these are clearly marked. The operator must ensure that escape routes are not obstructed and that their function is not impaired (e.g. that doors open towards the escape route).

Cleaning
The operator must ensure that machine and working equipment can be cleaned easily and without any risk. The operator must provide suitable detergents and define suitable cleaning procedures.

Instruction of staff
The operator is obliged to instruct employees regularly and in light of certain events (e.g. if an accident has occurred) in safe work procedures and occupational safety and health. We recommend that the instruction and the content covered should be documented by the employee's signature.

2.3 Employee responsibilities

Operating staff
The operating staff must be properly instructed and trained by the operator. Staff who have read and understood the safety information and have been properly familiarised themselves with the operation of the machine can be regarded as instructed.

Operating staff must be familiar with the operating manual and the applicable OHS and accident prevention regulations.

Qualified personnel
A technical expert is a person who, due to technical training and experience, possesses sufficient skills and knowledge.

The technical expert must be familiar with the operating manual and the applicable OHS and accident prevention regulations, as well as the applicable animal welfare laws.

Machine safety
Before starting any work, carefully check the machine for proper function in accordance with the intended use.
Do not set the machine into operation if it does not work correctly.
Switch off the machine immediately if it no longer works correctly and have it checked.
Have defective safety devices, switches or other defective machine parts repaired.
Notify the operator or his authorised representative of any changes to the machine which may affect your safety.

Competent personnel
Competent personnel are such persons who, due to technical training and experience, possess sufficient skills and knowledge.

The technical expert must be familiar with the operating manual and the applicable OHS and accident prevention regulations as well as with the latest regulations of the protection of animals.

Safety at the workplace
Maintain a stable upright position and keep your balance. Avoid awkward postures.

Keep your workplace clean and tidy. Untidy workplaces can cause accidents.

Always wear the personal protective equipment provided.

Keep children, young persons and untrained staff away from the machine.

Emergency procedures

In the case of an accident, administer first aid and call a doctor and emergency medical services.

Notify the operator or his authorised representative of every accident.

2.4 Personal protective equipment

The staff must carry the customary personal protective equipment. The personal protective equipment is dependent on the respective field of work.

The personal protective equipment must be provided by the operator. For hygienic reasons, each employee gets his/her own personal protective equipment.

2.5 Electrical safety

The electrical machinery and electrical equipment of FREUND Maschinenfabrik is tested for electrical safety prior to delivery and following modification or repair in our factory by a qualified electrician in accordance with the electrical engineering rules of the relevant standards and guidelines.

The inspection interval for equipment that is used in slaughtering and cutting plants is every six months.

2.6 Residual risks

The machineSB46-08, SB49-08 and SB50-08 was built according to the current state of the art before being placed on the market and complies with the basic safety and health requirements of the European Union. The machine is operationally safe, assuming compliance with the operating manual, the company-specific instructions and the accident prevention regulations.

However, there are still dangers involved which cannot be eliminated by design measures. These include:

- danger to life from live machine parts
- Cutting injuries from cutting tools
- risk of injury from negligent handling of personal safety equipment while operating the device, during maintenance and repair work and during cleaning and disinfection
- danger of burning on hot surfaces
- danger of scalding because of hot water with temperatures higher than 65°C.
- danger of crushing injuries to fingers and hands from getting caught when closing the cover.
- hearing damage from noise if noise emissions exceed 75 dB(A)

2.7 Intended use

FREUND splitter-band-saws are designed for halving pigs, sows and cattle in operations of all sizes.

The exact usage of individual machines is described in → chapter *Overview of the machines* from page 18.

2.8 Improper use

Every use other than those described as → chapter *Intended use* is deemed to be non-intended and is thus inadmissible.

The operator is solely responsible for risks in the case of improper use. Consult the manufacturer in case of doubt.

The following are deemed as non-intended use of the machine:

- the cutting and sawing of other materials such as wood, plastic or stone.
- the use of machines with safety extra-low voltage less than 50 V (e.g. 42 V) without a safety transformer.
- the use of machines with an operating voltage of more than 50 V (e.g. 400 V) in slaughter rooms without a residual-current circuit breaker.
- the use of machines without functional safety devices.
- the extension of the cables and connecting lines attached to the machine.

3 Technical Description

3.1 Definitions

This operating manual uses a number of different abbreviations. The following table explains these abbreviations:

Abbreviation	Designation	Meaning
MAN	Manual	Manual blade-tensioning-system
AUT	Automatic	Automatic (hydraulic) blade-tensioning-system
HF	Lever blade guide	Manual sawblade infeed
JF	Adjustable guide	Automatic sawblade infeed
DES-E	Inbuilt-disinfection-kit	Interior disinfection
DES-P07	Inbuilt-disinfection-kit P07	Automatic, time-controlled interior disinfection
2HATD	Two-hand synchronous safety circuit	Improved two-hand safety circuit, complies with DIN EN ISO 13851
EWV	Electrical water valve	Automatically controls the water supply
MSS	Machine safety switch	Safety switch for cover sensor
DES-K04	Disinfection cabin	For the external cleaning and external disinfection of the machines between work processes
TR7	Safety transformer	Generates the required safety extra-low voltage for 42 V machines; complies with the requirements of EN 60204-1 and EN 61558-1

3.2 Overview of the machines

3.2.1 Splitter-Band-Saw SB46-08

Use
- For halving pigs (high throughput plants) and cattle (medium plants)
- If using a low gambrel, halving of pigs is only possible with restrictions

View

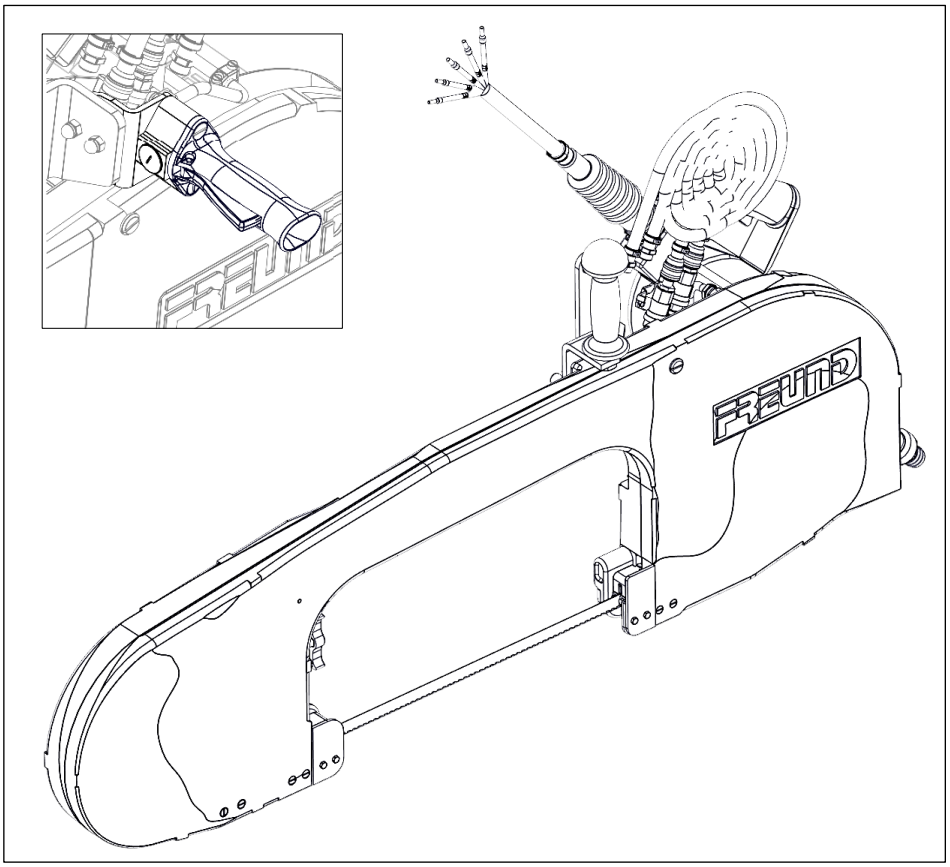


Fig. 3-1 View of standard machine SB46-08, detail: SB46-08 with 2HATD

Equipment options
- Voltage choice* 42 V, 400 V
  * Special voltages available on request
- MAN – Manual blade-tensioning-system with HF or JF
- AUT – Automatic blade-tensioning-system with hydraulic bloc
- EWV – Electrical water valve for cold water
- 2HATDS – Two-hand synchronous safety circuit
- Additional side handle (not in combination with 2HATDS)
- Automatic interior disinfection program controller P07

Dimensions The Dimensions can be found in the appendix under the heading **TIN-016011.**

Band saw blades

Type*	Toothing	Part-No.
BA46 FA	Standard 8 mm	224-010-004
BA46 GA	Standard 8 mm	224-011-004
BA46 GC	Cleaning tooth 10 mm	224-011-204

* 5 per packaging unit

Optional accessories

	Part-No.
Balancer F65-2	920-440-000
Balancer F60-3	920-475-000
Transformer TR7-SG-SB	912-030-383
Transformer TR7-SG-SB-P07 360	912-030-384
Disinfection cabin DESK-04	913-505-002

3.2.2 Splitter-Band-Saw SB49-08

Use

- Halving of pigs
- Expansion brace slaughtering of pigs, light sows and sheep
- Restricted for use to halve cattle

View

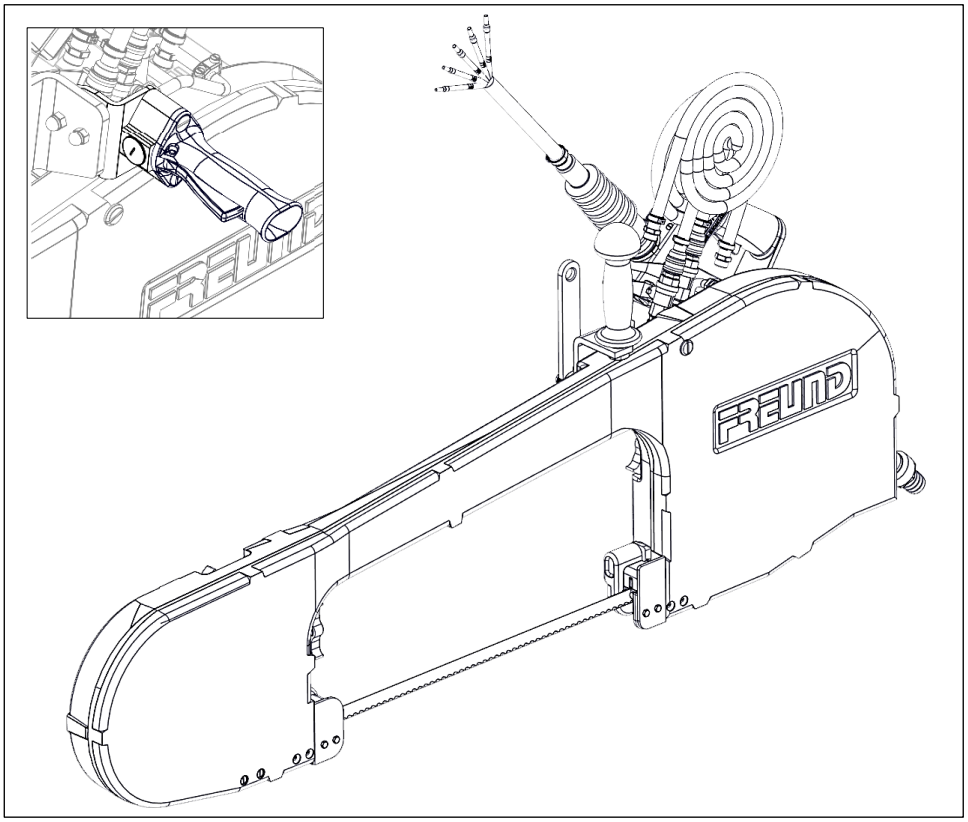


Fig. 3-2 View of standard machine SB49-08, detail: SB549-08 with 2HATD

Equipment options

- Voltage choice* 42 V, 400 V
  *Special voltages available on request
- MAN – Manual blade-tensioning-system with HF or JF
- AUT – Automatic blade-tensioning-system with hydraulic bloc
- EWV – Electrical water valve for cold water
- 2HATDS – Two-hand synchronous safety circuit
- Additional side handle (not in combination with 2HATDS)
- Automatic interior disinfection program controller P07

Dimensions

The dimensions can be found in the appendix under the heading TIN-016012.

Saw blades

Type*	Toothing	Part-No.
BA49 FA	Standard 8 mm	224-010-006
BA49 FC	Cleaning tooth 10 mm	224-010-206
BA49 GA	Standard 8 mm	224-011-006
BA49 GC	Cleaning tooth 10 mm	224-011-206

* 5 per packaging unit

Optional accessories

	Part-No.
Balancer F65-2	920-440-000
Balancer F60-3	920-475-000
Transformer TR7-SG-SB	912-030-383
Transformer TR7-SG-SB-P07 360	912-030-384
Disinfection cabin DESK-04	913-505-002

3.2.3 Splitter-Band-Saw SB50-08

Use
- Halving of cattle and sows in high throughput plants

View

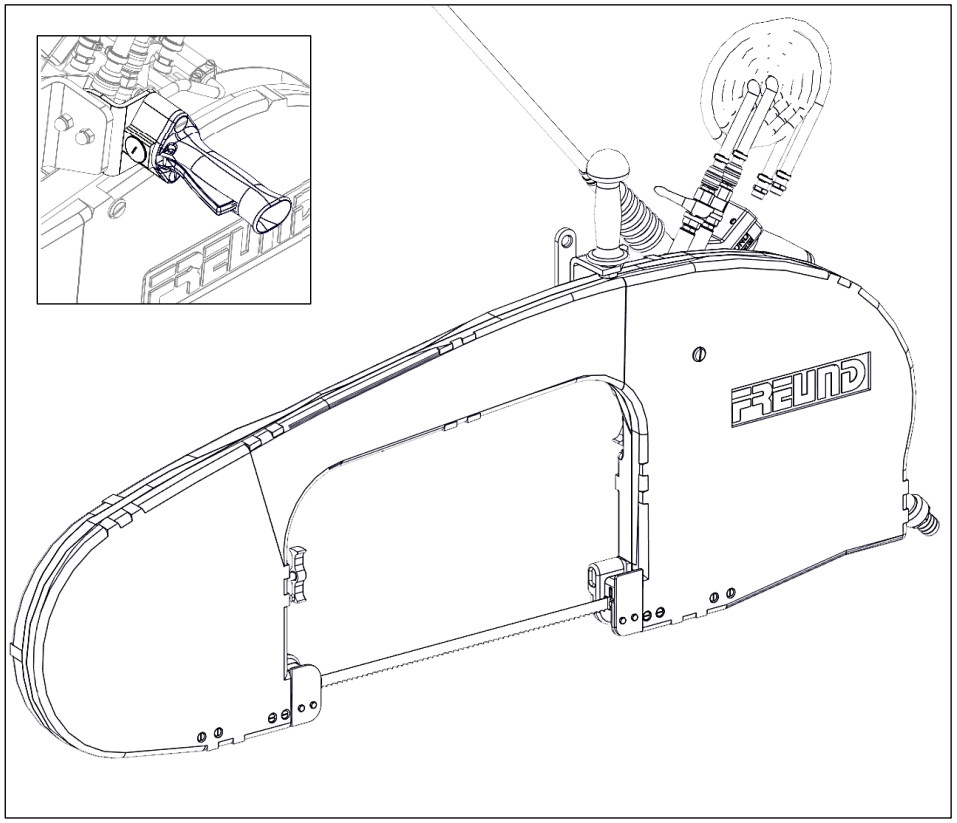


Fig. 3-3 View of standard machine SB50-08, detail: SB50-08 with 2HATD

Equipment options
- Voltage choice* 42 V, 400 V
  * Special voltages available on request
- MAN – Manual blade-tensioning-system with HF or JF
- AUT – Automatic blade-tensioning-system with hydraulic bloc
- EWV – Electrical water valve for cold water
- 2HATDS – Two-hand synchronous safety circuit
- Additional side handle (not in combination with 2HATDS)
- Automatic interior disinfection program controller P07

Dimensions The Dimensions can be found in the appendix under the heading **TIN-016010.**

Saw blades

Type*	Toothing	Part-No.
BA50 FA	Standard 8 mm	224-010-005
BA50 FC	Cleaning tooth 10 mm	224-010-205
BA50 GA	Standard 8 mm	224-011-005
BA50 GC	Cleaning tooth 10 mm	224-011-205

* 5 per packaging unit

Optional accessories

	Part-No.
Balancer F70-3	920-476-000
Transformer TR7-SG-SB	912-030-383
Transformer TR7-SG-SB-P07 360	912-030-384
Disinfection cabin DESK-04	913-505-002

3.3 Technical data

	SB46-08	SB49-08	SB50-08
Weight [kg]	approx. 61	approx. 58	approx. 70
Total length [mm]	1400	1430	1550
Cutting depth [mm] Output side Input side	 230 250	 195 250	 320 350
Cutting width [mm]	460	490	500
Motor	Type 08	Type 08	Type 08
Motor rating [kW]	2300	2300	2300
Duty type	S6	S6	S6
Speed [rpm]	760	760	760
Operating voltage [V]	42/400	42/400	42/400
Rated current [A]	40/4.3	40/4.3	40/4.3
Current frequency [Hz]	50	50	50
Noise emission [dB(A)]	≤ 70 dB, can rise to 95 dB (A) during operation		
Vibration [m/s^2]	< 2.5	< 2.5	< 2.5
Water connection ["]	3/8	3/8	3/8
Protection class	IP 65	IP 65	IP 65

3.4 Rating plate



Fig. 3-4 Example of rating plate on front of motor

	Explanation
1	Company address
2	Machine type and designation
3	*Performance data*: Rated voltage [V] — Duty type Rated power [W] — Speed [rpm] Frequency [Hz] — Protection class Rated current [A] — Displacement power factor [cos φ]
4	Year of manufacture of the machine, production order no.

3.5 Lubricants

The disturbance-free functioning and the efficiency of the machine depend significantly on the quality of the lubricants used.

Information and instructions relating to lubricants can be found in the appendix under the heading **TIN-100-013.**

The H1 designation has been established as an international standard for food grade lubricants.

FREUND Maschinenfabrik uses lubricants that comply with the FDA-H1 standard on all machines where accidental contact between the lubricants and the animal carcass is possible.

Safety data sheet

Please refer to the safety data sheets for further information. You can find the safety data sheets in the FA.

Gearbox grease

FREUND-grease is high-performance transmission grease that is extremely resistant to high pressure loads and high temperatures. It is physiologically harmless and resistance to oxidation and ageing.

3.6 Synchronized two-hand safety switch (option)

Optionally you can operate the machine with a synchronized two-hand safety switch (2HATD).

The 2HATD meets the requirements of Type III C of DIN EN ISO 13851. It is powered with an external control box.

Synchronised switching on:
Both switch-on triggers must be pressed within 0.5 seconds.
During work with the machine the operator must continuously and simultaneously press both trigger.

3.7 Inbuilt-Disinfection-Kit DES-E

The inbuilt disinfection system DES-E allows the interior of the splitter-band-saw and the saw blade to be disinfected with hot water at regular intervals.

The water is supplied to the machine via a spiral hose. The water quantity is adjusted manually via the ball valve.

3.8 Automatic internal sanitation-control DES-P07 (option)

The Internal Sanitation-Control DES-P07 controls the automatic execution of the disinfection cycle after each sawing operation.

The interior and the band saw blade of the machine are cleaned and disinfected with hot water after a preset time interval (default setting 5 seconds).

The automatic disinfection process can be manually interrupted at any time by switching on the machine.

3.9 Scope of delivery

- Machine
- 2 thickness gauges
- 1 set of 5 band saw blades

4 Transport and storage

FREUND machines are designed for shipment by truck, rail, air or ship. Secure shipment is carried out in individual packaging or multi-packs.

Test run ex works

The machine was tested prior to shipment. Such testing ensures that the machine corresponds to the specified data and is working properly.

Despite all due care, it is possible that the machine could be damaged during transport. When unpacking the machine, please therefore check it for possible transport damage and document any such damage. Inform the transport company and Freund customer service immediately.

4.1 Safety information



WARNING!

Danger due to falling or toppling load.

Death or very serious injuries are possible.

- ➢ Only use approved lifting gear and accessories appropriate for the total weight of the machine.
- ➢ Never stand under a suspended load.
- ➢ Secure the danger zone against unauthorized access.
- ➢ Wear a hard hat, protective footwear and gloves.

4.2 Personal protective equipment



4.3 Transporting the machine

All FREUND-machines can be transported using a fork-lift truck or lift truck. The length of the fork must at least correspond to the depth of the machine.

- ➢ Only use lifting equipment and gear that has been approved for the weight of the machine. This includes transporting using a crane, fork-lift truck or lift truck. For the weight of the machine refer to → chapter *Technical data* on page 22.
- ➢ Secure the machine during transport to prevent it from tilting and slipping.
- ➢ Only use ropes and lifting appliances which ensure sufficient safety and load bearing capacity.

4.4 Unpacking the machine

Recycling and disposal

The original packaging of the machine is made of recyclable material and can be given to the system for collecting recyclables.

For details about recycling and disposal of the package refer to the → chapter *Disposal and Recycling* on page 49.

- Remove all packing materials and dispose of it properly and in an environmentally sound manner.
- Remove any accumulated condensate.
- Check the machine for transport damage.
- Watch the machine during the first hours of operation to check whether any malfunctions occur.

4.5 Storing the machine

To store the machine safely, be sure to observe the following notes:

- Only store the machine in dry and frost-free rooms.
- When storing the machine for a longer period, make sure it is dry.
- Store the machine so that damage to the machine is excluded.
- Protect the machine against corrosion.

5 Installation and Commissioning

The installation and connection of the machine is made by the operator.

For damages, which result from this, the manufacturer FREUND Maschinenfabrik, is not liable.

5.1 Safety information



DANGER!

Live machine parts.

Danger to life.

- ➢ Before starting any work, disconnect the machine from the power supply and secure it against being inadvertently switched back on.



WARNING!

Risk of accident caused by insufficiently qualified personnel

Danger to Life and most severe injuries are possible.

- ➢ The machine may only be commissioned by instructed and authorized personnel.
- ➢ All works to live components may only be performed by approved electricians.



WARNING!

Sharp-edged machine parts.

Cutting hazard.

- ➢ Never put your hands near moving machine parts.
- ➢ Keep your hands away from the saw blade or blade.
- ➢ For your own safety, wear protective gloves.

5.2 Personal protective equipment



5.3 Connecting the machine

DANGER!

Live machine parts.

Risk of fatal injury due to electrical current.

- Connection of the machine and maintenance work on live components may only be performed by trained electricians.

We recommend that a main switch is installed before the machine is connected to the power supply. This way, the machine can be easily disconnected from the power supply once the work is complete.

Length of the connection cable

The machine's connection cable is 8 m long; the cable should not be extended.

5.3.1 Machines with 42 volt operating voltage

Machines with a safety extra-low voltage (VLV) less than 50 V must be operated with a safety transformer.

We recommend FREUND transformers TR7-SG-SB (part-no. 912-030-383) or, for automatic control of the interior disinfection, TR7-SG-SB-P07 (part-no. 912-030-384).

Fasten the transformers in place using our optional wall fastening set, part-no. 100-022-069.

Detailed information on the attachment and operation of the transformer can be found in the corresponding operating manual.

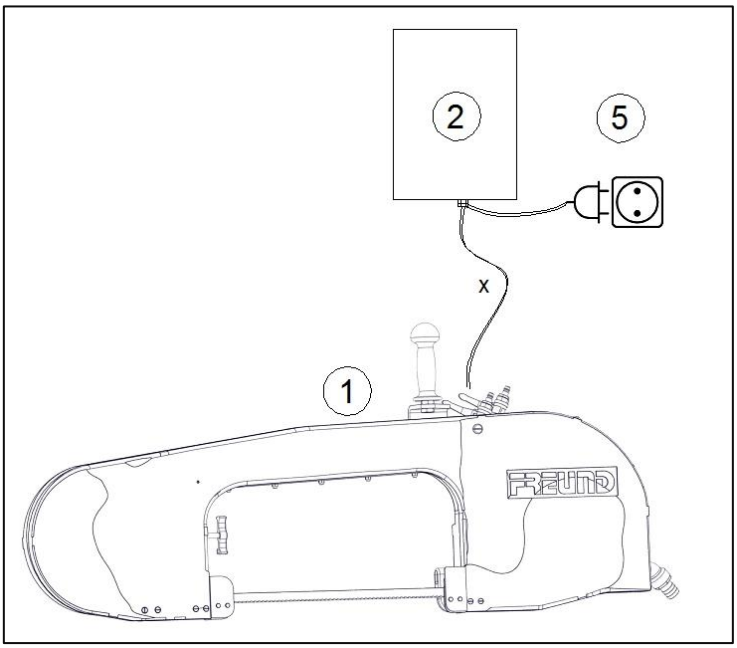


Fig. 5-1 Connection diagram for 42 V machines

EN

Pos.	Description
1	Machine 42Volt
2	Transformer TR7-SG-SB incl. control box
5	Mains connection 400Volt
x	Cable length 8 m

5.3.2 Machines with 400 volt operating voltage

Handheld machines with an operating voltage of more than 50 V (e.g. 400 V) that are used in the slaughter rooms **must** be secured on-site by the site operator using a residual-current circuit breaker (FI switch) smaller than or equal to 30 mA.

400 V FREUND machines can only be operated with an additional control box.

Control box

We recommend FREUND control box SG-SB-MSS-P07 (part-no. 148-004-055).
Fasten the control box in place using our optional wall fastening set (part-no. 100-022-069).

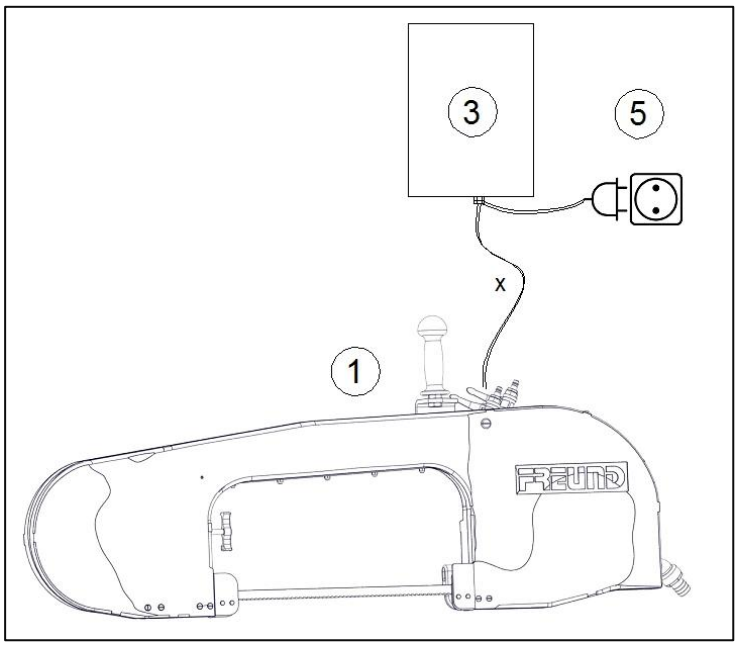


Fig. 5-2 Connection diagram for 400 V machines

Pos.	Description
1	Machine 400 Volt
3	Control box SG-SB-MSS
5	Mains connection 400 Volt
x	Cable length 8 m

5.4 Connecting water hoses

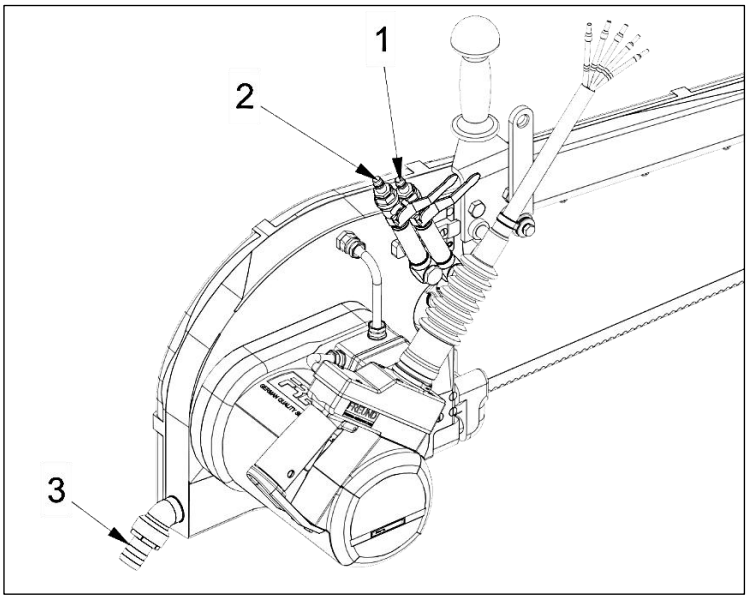


Fig. 5-3 Workplace

Pos.	Description
1	Cold water connection
2	Hot water connection
3	Water outlet

5.5 Setting the disinfection cycle

The disinfection cycle for internal disinfection is set to 5 seconds in the factory. The disinfection cycle can be adjusted using the timer relay in the transformer or the control box.

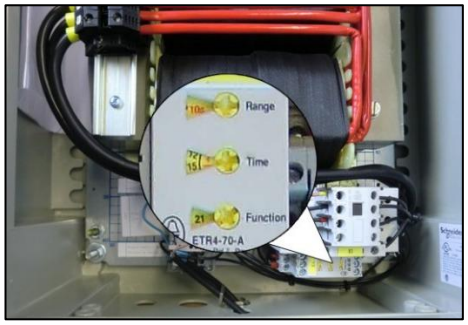


Fig. 5-4 Timer relay in transformer TR7

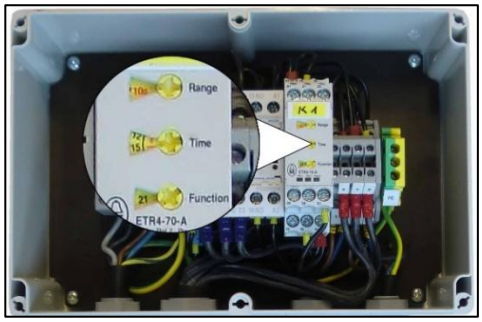


Fig. 5-5 Timer relay in control box

The “Range” value must be set to 10. The “Function” value must be set to 21.

You can check the setting for the duration of the interior disinfection using the “Time” value (red numbers).

We recommend setting this value to between 4 and 6 seconds.

5.6 Installing the balancer

The balancer is used for balancing and counterbalancing the weight of the machine attached to it. FREUND-balancers are pre-set to the weight of the machine.

For safety reasons, the machine may only be operated when a balancer is used.

1. Secure the balancer in accordance with the manufacturer's operating manual.
2. Attach the balancer to a sliding rail system to a beam above the workplace or at the ceiling.

The distance between the centre of the overhead track or the carcass suspension point and the balancer suspension should be between 350 - 400 mm.

3. Attach the machine to the balancer that the head section faces downwards.

   The balancer must be set so that the machine can be moved up and down without too much effort. The suspension of the machine offers different possibilities for positioning.
4. Readjust the balancer if necessary. Observe the operating manual for the balancer when doing so.

6 Operating

6.1 Safety information

WARNING!

Risk of accident caused by insufficiently qualified personnel

Danger to Life and most severe injuries are possible.

- ➢ The machine may only be maintained, repaired and cleaned by qualified personnel.
- ➢ All works to live components may only be performed by approved electricians.

WARNING!

Sharp-edged machine parts.

Cutting hazard.

- ➢ Never put your hands near moving machine parts.
- ➢ Keep your hands away from the cutting tools.
- ➢ Always wear protective gloves for your own safety.

Caution!

The machine is very heavy.

Personal injury as a result of the machine falling down.

- ➢ Always attach the machine to a balancer.
- ➢ Do not position yourself under the machine.

6.2 Personal protective equipment



6.3 Daily safety check

Before starting operation, check the stunning device and the stunning system diligently for flawless and intended functioning.

Only use faultless and fully functional machines.

Check the

- machine for surface damages and loose machine parts.
- electrical and/or pneumatic connections and access lines for surface damages.

- the water flow in the saw housing and the unobstructed flow through the nozzles
- seating of moving parts. These must not lock and show any partial damages.
- saw blade / circular blade knife to be properly fixed.
- balancer and the balancer settings.
- Never use a machine with defective safety devices, switches or other defective machine parts.
- Have defective safety devices, switches or other parts repaired, and notify your employer.

6.4 Operating the machine

1. Open the water supply at the main valve.
2. Open the water supply at the ball valve at the machine.
3. Turn on the main switch.
   The machine is ready for use!
4. Hold the machine firmly on both handles
   a. Press and hold the trigger in the rear handle of the machine.
   b. Press and hold the trigger in the rear handle and in the front handle (2HATD) at the same time.
5. Guide the machine into the carcass with the engine running.
6. Guide the machine through the carcass without applying too much force during the sawing operation.

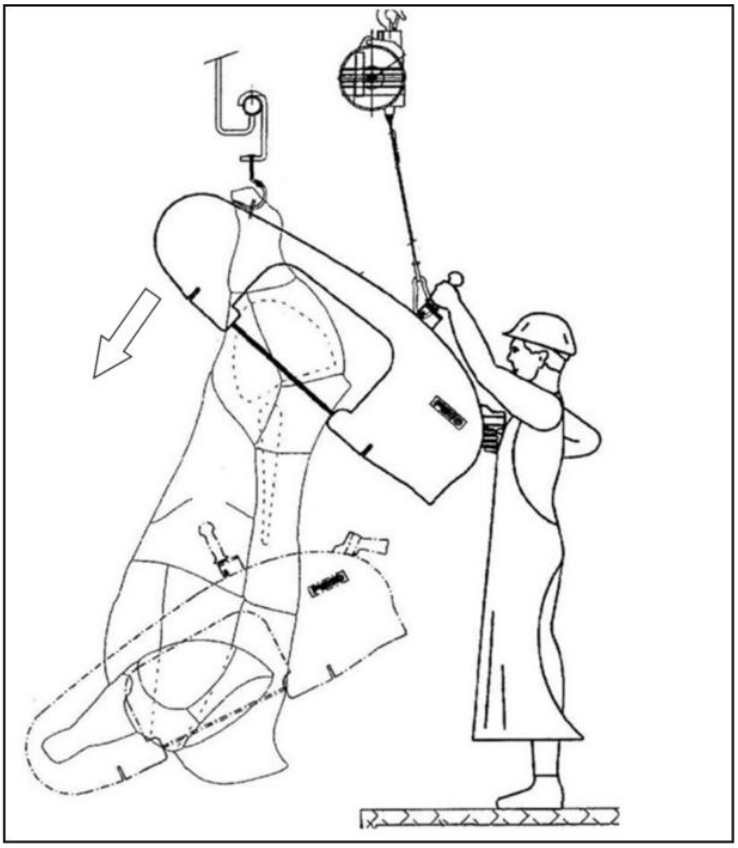


Abb. 6-1 Sägevorgang

7. After completing your sawing work, remove the machine from the carcass with the motor still running.
8. Release the trigger in the rear handle (and the handle of the two-hand safety switch).
   The machine stops automatically.

After work

9. Switch off the main switch.
10. Close the water supply at the ball valve of the machine and at the main supply.

7 Cleaning and Disinfection

Cleaning is carried out in order to remove dirt, meat and fat particles from the machine.

For hygienic reasons, the machine must be thoroughly cleaned at least daily after each shift, and in between in case of heavy soiling. All surfaces must be visually clean after cleaning.

Thorough cleaning is a prerequisite for the subsequent disinfection to be effective.

Always take note of the safety instructions in the product data sheets issued for the relevant detergents or disinfectants.

7.1 Safety information



DANGER!

Live machine parts.

Danger to life from electric shock.

- Before starting any cleaning work, disconnect the machine from the power supply and secure it against being inadvertently switched back on.
- Do not use water or a high-pressure cleaner to clean live machine parts.



WARNING!

Risk of accident caused by insufficiently qualified personnel.

Danger to Life and most severe injuries are possible.

- The machine may only be maintained, repaired and cleaned by qualified personnel.



WARNING!

Sharp-edged machine parts.

Cutting hazard.

- Never put your hands near moving machine parts.
- Keep your hands away from the cutting tools.
- Always wear protective gloves for your own safety.



WARNING!

Highly irritant or corrosive detergents and disinfectants.

Breathing difficulties and other health damage is possible.

- ➢ Always take note of the hazardous substance symbols and the safety data sheets issued for the relevant detergent or disinfectants.
- ➢ Wear the personal protective equipment specified by the manufacturer of the detergents and disinfectants.

7.2 Personal protective equipment



7.3 Carrying out cleaning and disinfection

- Only use detergents and disinfectants approved for the food industry.
- Be sure to adhere to the specified, interdependent, parameters for detergents (concentration, dwell time, dwell temperature).
- Store detergents and disinfectants separately or in a special room. Make absolute sure those detergents and disinfectants do not come in contact with food.
- Only use cloths, brushes or other devices which are only used for cleaning and disinfection.



Notice!

Damage due to high water pressure.

High water pressures will cause damage to seals and machine parts.

- ➢ Do not use high-pressure cleaners.
- ➢ Only work at water pressures of less ≤ 6 bar.

Work steps	Detergents and disinfectants	Auxiliary materials
		
Rough cleaning		
Removing product residue	Drinking water	Plastic scraper, brush
Removing small parts and assembly parts	Drinking water	Plastic scraper, brush; dishwasher if necessary
Intermediate rinsing		
	Drinking water, max. 60°C depending on fat melting temperature Low-pressure device, spray bottle	
Main cleaning		
Apply foam, allow to act for approx. 15 minutes	2 – 4% Somplex grease solvent 2 – 3% Ecolab P3-topax 19 2 – 3% Ecolab P3-topax 66 Ecolab P3-steril Powerfoam	Spray bottle, brush, tub, clean damp cleaning cloths
Rinse	Drinking water, max. 60°C	Low-pressure device, spray bottle
Check that machine is visibly clean		
Acid cleaning*[1] (instead of main cleaning)		
Apply foam, allow to act for approx. 15 minutes	3 – 6% P3-topax 56 3 P3-riskan, Somplex foam, acidic	Spray bottle, brush for removing limescale deposits
Rinse	Drinking water at 50 – 60°C	Low-pressure device, water hose
Check that machine is visibly clean		
Intermediate rinsing		
	Drinking water, max. 60°C Low-pressure device, spray bottle	
Disinfection*[2]		
Spray, apply foam Allow to act as per product data sheet Solution temperature approx. 15°C	1 – 2% Ecolab P3-topax 99 0.5 – 2% Ecolab P3-topax 91 1% TEGOL 2000 1% TEGOL IMC 1% Somplex	Spray bottle, spray gun, clean damp cloth
Final rinsing		
	Drinking water, max. 60°C depending on fat melting temperature Low-pressure device, spray bottle	
Check		
that machine is visibly clean; repeat cleaning and/or disinfection if necessary		

Work steps	Detergents and disinfectants	Auxiliary materials
Drying		
Rub dry or allow to dry in ambient air; allow disassembled parts to dry individually if possible		
Care		
Apply	Preservative oil, food grade oil	Spray bottle, clean cleaning cloth
Assembly		
Personnel must wash and disinfect hands		

* 1 For materials sensitive to acids such as POM, PMMA (acrylates) and cast materials, we recommend limiting acid cleaning to around 1x every 2 to 6 weeks.

* 2 The surfaces should, after cleaning and disinfection, simply be dried and protected from oxidation by a suitable preservative film.

8 Maintenance and Repair Work

To ensure a long service life and low wear, the machine must be regularly checked and maintained.

The work area on the workbench must be clean and free from foreign material for all maintenance or dismantling work.

Repair and maintenance must only be carried out by skilled and authorized qualified personnel.

Warranty

If faults or defects are detected on the machine during the legal warranty period, contact our sales staff. Please refer to the company information at the imprint for address and telephone numbers.

Only use original spare parts or spare parts recommended by FREUND Maschinenfabrik.

8.1 Safety information



DANGER!

Live machine parts.

Danger to life.

- ➢ Before starting any installation, maintenance and repair work, disconnect the machine from the power supply.
- ➢ Secure the machine against being inadvertently switched back on.



WARNING!

Risk of accident caused by insufficiently qualified personnel

Danger to Life and most severe injuries are possible.

- ➢ The machine may only be maintained, repaired and cleaned by qualified personnel.
- ➢ All works to live components may only be performed by approved electricians.



WARNING!

Sharp-edged machine parts.

Cutting hazard.

- ➢ Never put your hands near moving machine parts.
- ➢ Keep your hands away from the cutting tools.
- ➢ Always wear protective gloves for your own safety.

8.2 Personal protective equipment



8.3 Recommended lubricants

For changing the gear motor of the machines SB46, SB49 and SB50 you need 750 g of gearbox grease.

Sales container	Part-No.
1kg box	171-500-010

Ensure compliance with the general occupational safety rules when handling lubricants.

8.4 Maintenance schedule

Some maintenance jobs must be carried out at regular intervals. The following table gives you an overview of the maintenance work to be carried out and the corresponding maintenance interval.

Adjust the maintenance intervals to your working conditions, if necessary.

Interval	Maintenance job	→ chapter
Daily	Visual inspection before starting any work	→ chapter *Daily safety check* on page 32
	Check the balancer settings	→ chapter *Checking the Balancer Settings* on page 42
Once a week	Check the thrust plates for wear	→ chapter *Checking the Thrust Plates* on page 42
	Check the blade tension and re-adjust if required	→ chapter *Setting the band saw blade tension* on page 43
If required but at least every 3 months	Replace the guiding plates	
Every 6 months	Periodic inspection in accordance with VDE 0701/0702/EN60204-1	→ chapter *Periodic inspection of electrical equipment* on page 41
If required	Replace the band saw blade	→ chapter *Replacing the band saw blade* on page 42
	Checking bearings and seals for signs of wear and replace	
	Adjust the output wheel	→ chapter *Adjusting the output wheel* on page 43

8.4.1 Periodic inspection of electrical equipment

Periodic inspections of non-stationary electrical machinery and equipment that is used in slaughtering and cutting plants must be carried out at intervals of six months in accordance with EN 60204-1.

The electrical test must be carried out by an electrically skilled person in the sense of the accident prevention regulation “Electrical installations and equipment” or by an electrically instructed person.

Service package SDL-003-004

We at FREUND Maschinenfabrik would like to give you the option to arrange for the next periodic inspection of your machinery or equipment to be carried out at our factory. We offer the service package SDL-003-004 including a complete inspection of the electrical system with inspection report and test sticker.

If you are interested in arranging for a periodic inspection at our factory or by a service technician on-site, please contact our sales departement. Please refer to the company information in the imprint for address and telephone numbers.

8.5 Eliminating the Causes of Band Saw Blade Breakage

Premature band saw blade breakage can have the following causes:

- Wrong band saw blade type
- Wrong balancer adjustment
- Worn thrust plates
- Band saw blade tension not set correctly (→ chapter "*„Setting the band saw blade tension*" on page 43)

8.5.1 Checking the Band Saw Blade Type

Not every type of band saw blade is suitable for every type of sawing work.

- Check whether the band saw blade type is suitable for your work.

8.5.2 Checking the Balancer Settings

The balancer must be set so that the machine can be moved up and down with almost no effort and slowly slides down through the carcass only due to its own weight.

The cutting force may not be applied by the operator but should be applied by the weight of the saw. The operator guides the machine through the carcass without applying too much force.

- Set the balancer so that the machine slides down only due to its own weight.

8.5.3 Checking the Thrust Plates

Friction between the band saw blade and the upper thrust plate causes score marks to be formed in the thrust plates.

As the number of operating hours increases, the score marks in the thrust plate become deeper. If the groove becomes too deep, this can cause the saw blade to jam during sawing and the back of the saw blade can break.

- Check the thrust plates when carrying out the first band saw blade replacement in a shift.
- Turn the thrust plates round or over if a distinct mark is visible. Turning the thrust plate allows it to be used up to 4 times.

8.6 Replacing the band saw blade

8.6.1 Manual blade-tensioning-system

HF You can find the corresponding installation manual in the spare parts list under the heading **MTA-010843-C**.

JF You can find the corresponding installation manual in the spare parts list under the heading **MTA-015997-C**

8.6.2 Automatic blade-tensioning-system

You can find the corresponding installation manual in the spare parts list under the heading **MTA-010846-C**.

8.7 Setting the band saw blade tension

You can find the corresponding installation manual in the appendix under the heading **MTA-010843-C**.

8.8 Adjusting the output wheel

8.8.1 Manual blade-tensioning-system

You can find the corresponding installation manual in the appendix under the heading **TIN-010844**.

8.8.2 Automatic blade-tensioning-system

You can find the corresponding installation manual in the appendix under the heading **TIN-010847**.

8.9 Replacing the guide plates and thrust plates

8.9.1 Manual blade-tensioning-system

You can find the corresponding installation manual in the spare parts list under the heading **MTA-010845-C**.

8.9.2 Automatic blade-tensioning-system

You can find the corresponding installation manual in the spare parts list under the heading **MTA-010867-C**.

9 Troubleshooting

If malfunction or faults occur during the operation, you can look for possible causes and remedies in this chapter.

If you do not find the malfunction or fault of your machine in the following table, contact our sales staff. Please refer to the company information at the Imprint.

9.1 Safety information



DANGER!

Live machine parts.

Danger to life.

- ➢ Before starting any installation, maintenance and repair work, disconnect the machine from the power supply.
- ➢ Secure the machine against being inadvertently switched back on.



WARNING!

Risk of accident caused by insufficiently qualified personnel

Danger to Life and most severe injuries are possible.

- ➢ The machine may only be maintained, repaired and cleaned by qualified personnel.
- ➢ All works to live components may only be performed by approved electricians.



WARNING!

Sharp-edged machine parts.

Cutting hazard.

- ➢ Never put your hands near moving machine parts.
- ➢ Keep your hands away from the cutting tools.
- ➢ Always wear protective gloves for your own safety.

9.2 Personal protective equipment



9.3 Overview of possible faults

Fault	Possible cause	Remedy
Motor not running/stops during work.	No power.	Check whether the connection cable is plugged in.
		Check the connection cables for interruptions or damage.
		Check the main fuse.
		Check whether the current wires are terminated correctly and the screws on the terminals are firmly tightened.
	Defective fuse in transformer.	Replace the fuse.
	Thermal contact in transformer tripped.	Switch off the machine. Wait until the machine has cooled down. Replace the switch if required.
Increase in force required for sawing.	Band saw blade blunt.	Replace the band saw blade; see → chapter *Replacing the band saw blade* on page 42.
	Incorrect balancer settings.	Adjust the balancer. Set the balancer so that the machine slowly slides down under its own weight.
Band saw blade slipping out of guide.	Guide lever jammed or not running smoothly.	Clean the band saw blade guide.
Saw not guided straight while cutting.	Band saw blade teeth running on output wheel.	Readjust the band saw blade; see → chapter *Adjusting the output wheel* on page 43.
	Band saw blade guide worn.	Replace the guide plates.
	Machine not suspended correctly.	Align the machine vertically. Prevent the machine from tipping over to the front or sideways at the rear when it moves.

Fault	Possible cause	Remedy
	Band saw blade tension too low.	Readjust the blade tension; see → chapter *Setting the band saw blade tension* on page 43.
Unusual noises in the motor.	There is increased bearing clearance and/or a bearing is defective.	Check the bearings. If necessary, have the bearing replaced. When replacing a bearing, replace the grease as well – see → chapter Recommended lubricants on page 40.
	Fastening bolts loose.	Check the bolts/nuts to ensure they are tight.
	There has been a phase failure.	Check the connections and, if necessary, the resistance of the coil.
Motor overheating (temperature > 70°C).	On 42 V machines: Transformer capacity is not sufficient/not a FREUND transformer.	Use the transformer recommended by FREUND.
	Incorrect connection cable: cross-section too small and/or connection cable too long.	Only use the original cable. Do not extend the connection cable to more than 8 m.
	Loose contact in connection cable.	Have the electrical connections checked by a qualified electrician, and retighten the terminal if necessary.
	Moisture in control handle control box.	Unscrew the cover. Remove the moisture. Replace any corroded terminals and connections. Replace the cover gasket. Check the bellow and replace it if required. Retighten the hose ties if required.
	There has been a phase failure.	Have the electrical connections checked and rewired by a qualified electrician.

Fault	Possible cause	Remedy
	Input voltage too low.	Measure the mains voltage. Select the suitable input at the transformer.
	Mains voltage incorrect or fluctuating.	Use a machine that is suitable for the mains voltage.
Machine direction of rotation incorrect.	Connection cable connected incorrectly.	Have the connections checked and corrected by a qualified electrician.
Machine sawing poorly, or not at all.	Band saw blade fitted incorrectly.	Remove the band saw blade. Refit the band saw blade with the teeth facing in the direction of the housing; see → chapter *Replacing the band saw blade* on page 42.
	Band saw blade blunt.	Replace the band saw blade; see → chapter *Replacing the band saw blade* on page 42.
Band saw blade getting stuck in carcass.	Incorrect band saw blade type.	Switch off the machine. Replace the band saw blade; see → chapter *Replacing the band saw blade* on page 42.
	Incorrect free-cutting action due to changed tooth set.	
	Band saw blade blunt.	
	Band saw blade bent.	Switch off the machine. Pull the machine out of the carcass. Increase the kerf.
	Machine stuck in a bone.	
Band saw blade jammed.	Band saw blade and/or saw blade guide soiled.	Clean the band saw blade and/or the saw blade guide.
Band saw blade slipping under load.	Band saw blade tension set incorrectly.	Readjust the blade tension; see → chapter *Setting the band saw blade tension* on page 43.
	Band saw blade soiled.	Clean the machine.

Fault	Possible cause	Remedy
Premature band saw blade breakage.	Band saw blade guide worn.	Replace the guide plates.
	Band saw blade tension set incorrectly.	Readjust the blade tension; see → chapter *Setting the band saw blade tension* on page 43.
	Band saw blade constantly running against thrust plate.	Guide the machine through the carcass without applying too much force.
	Too much force used when guiding the machine.	
	Balancer set for different weight range.	Use a Use a balancer with the correct weight range and cable travel; see → chapter "*Overview of the machines*" on page 18. It must be possible to pull out the cable easily and without jamming it.
	Cable travel for balancer jammed.	
	Incorrect balancer settings.	Adjust the balancer. Set the balancer so that the machine slowly slides down under its own weight; see → chapter *Checking the Balancer Settings* on page 42.
	Band saw blade teeth running on output wheel.	Readjust the band saw blade; see → chapter *Adjusting the output wheel*" on page 43.
	Thrust plates worn.	Rotate the thrust plates by 90° or replace them; → chapter *Checking the Thrust Plates* on page 42).
Drive shaft not turning when motor running.	Broken connecting shaft between motor and gear unit.	Replace the defective parts.
	Keys sheared.	
Drive shaft not turning when motor running.	Coupler bushings defective.	Replace the defective parts.

10 Disposal and Recycling

The machine must be disposed of in accordance with the pertinent national regulations.

More Information

For more information about our materials and their disposal please contact our sales staff.

Please refer to the company information in the imprint for the address and telephone numbers.

10.1 Disassembling and disposing of the machine



Old machines contain recoverable materials which you can return for recycling.

When disposing of the machine, make sure to observe local environmental regulations.

1. Disconnect all connections and supply lines from the machine.
2. Completely disassemble the machine.
3. Segregate all materials.
4. Dispose of waste oil and components and materials soiled with oil in accordance with the applicable environmental regulations.
5. Send the individual materials to the appropriate recycling or disposal facilities.
6. Send hazardous waste to a local hazardous waste site.

10.2 Disposing of packaging material

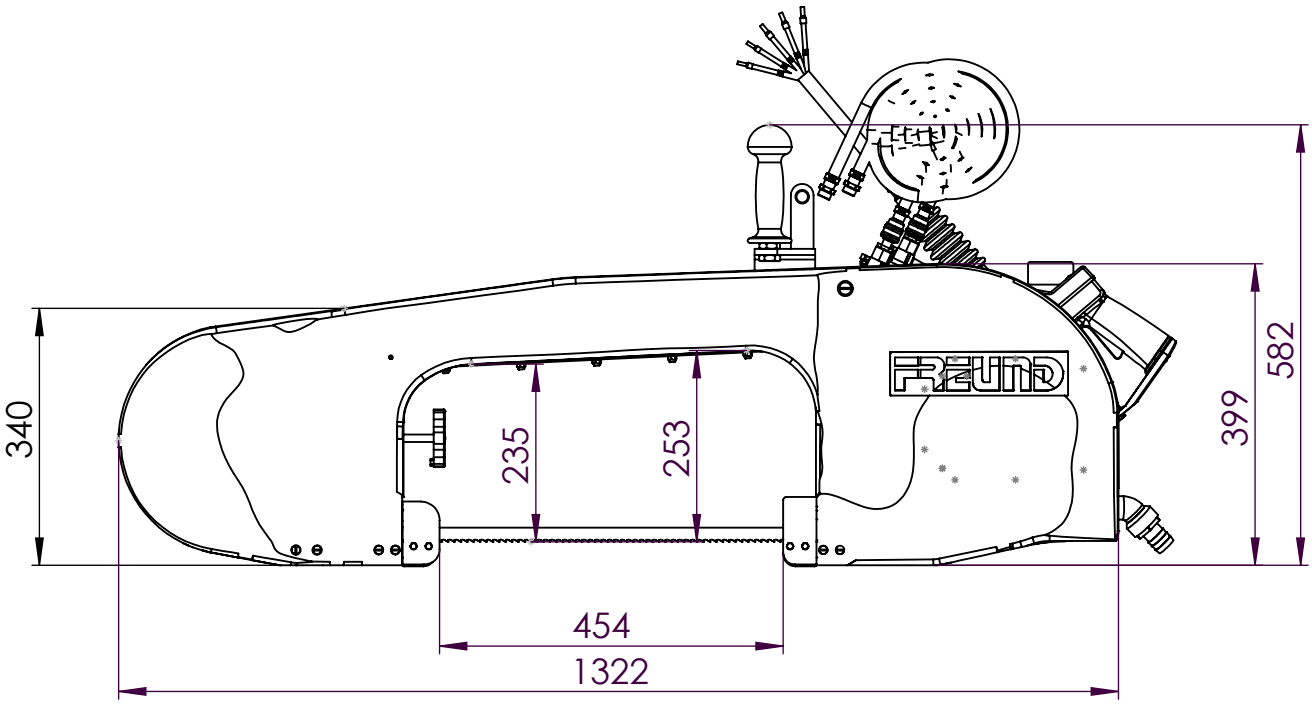


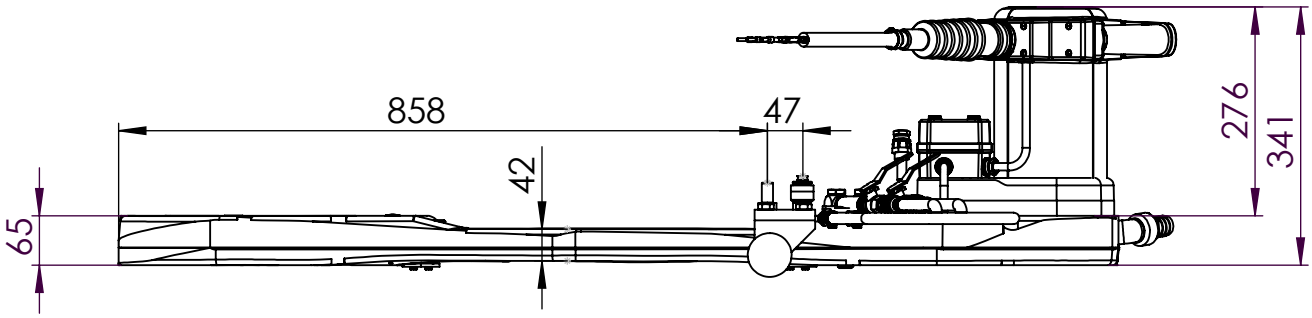
All packaging materials used by FREUND Maschinenfabrik are environmentally friendly and can be recycled.

You can safely dispose of the packaging materials through your local waste collection system or return them for recycling.

TIN-016011

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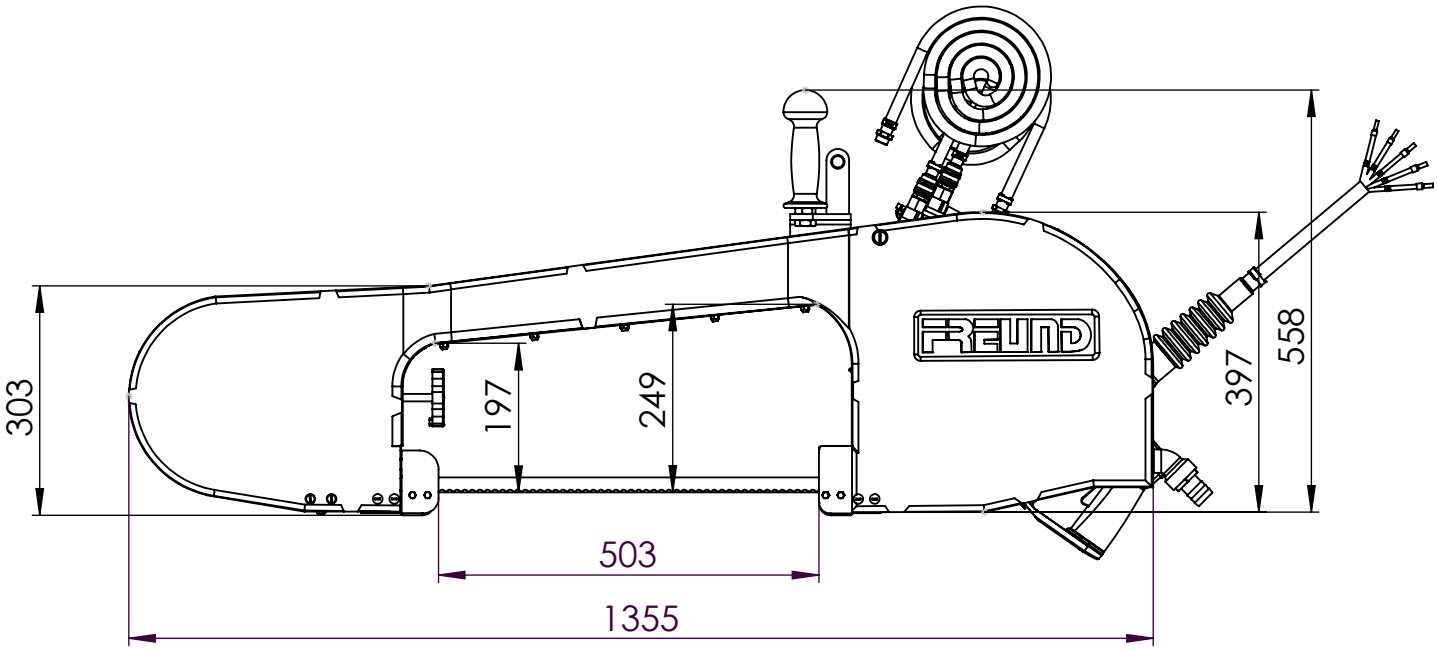


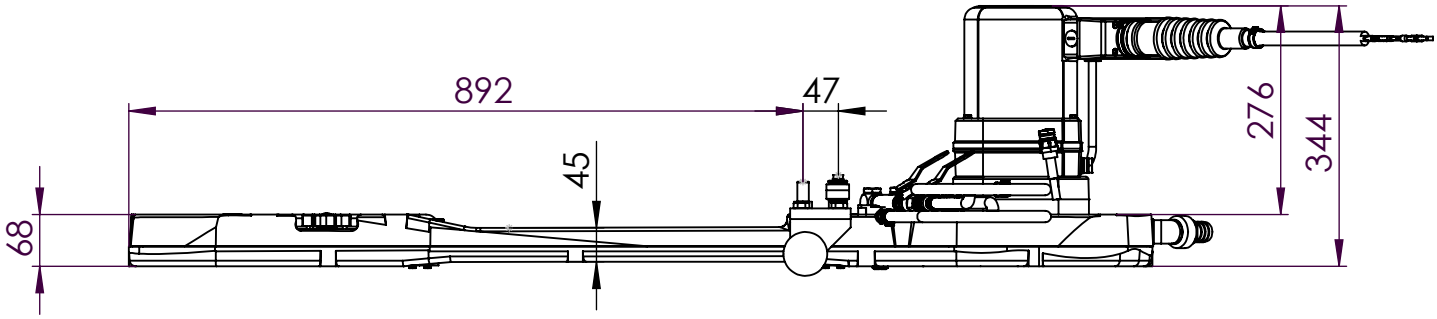
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TIN-016012

SB49-08



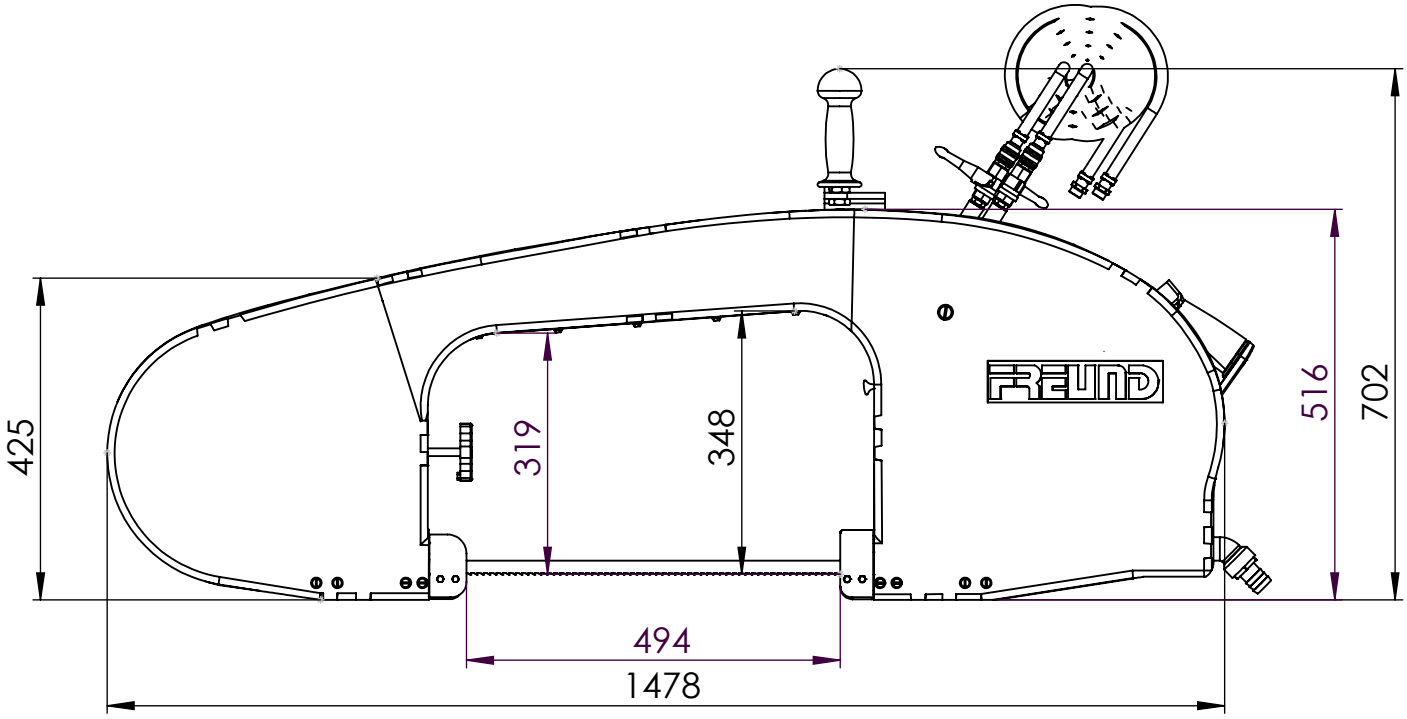


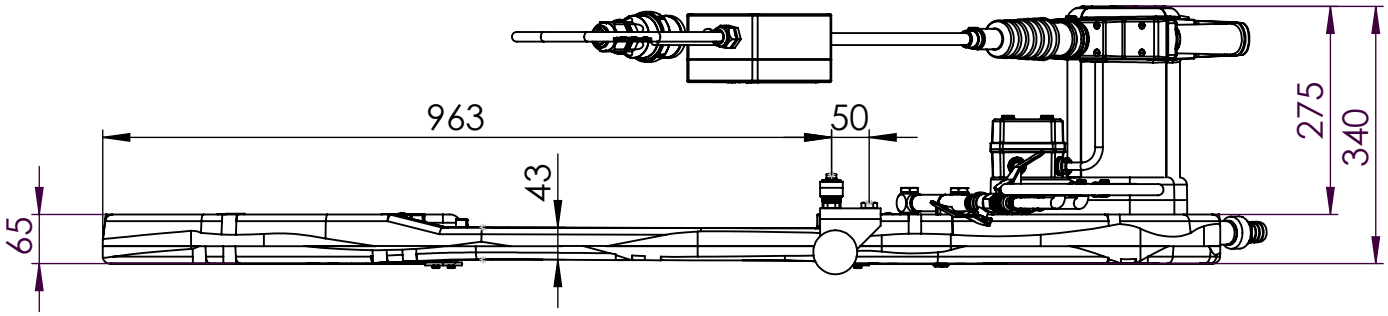
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TIN-016010

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TIN-016010 000

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TIN-100-013

Hydrauliköl / Hydraulic oil Esso Marcol 82 (100-013-029)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
5 l Kanister / Canister	171-500-001
10 l Kanister / Canister	171-500-002
20 l Kanister / Canister	171-500-003
Verwendung / Ability for	Füllmenge / Filling capacity
HPP12	7 l

Hydrauliköl / Hydraulic oil Nevastane AW46 (100-013-026)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
1 l Flasche / Bottle	047-004-004
5 l Kanister / Canister	171-500-004
10 l Kanister / Canister	171-500-005
20 l Kanister / Canister	171-500-006
Verwendung / Ability for	Füllmenge / Filling capacity
K16-P4, PNM, SD11	0,1 l
HPE9	21 l
HPE20	28 l

Getriebefett / Gearbox grease Kajo GLP o F (100-013-001)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
1 kg Dose / Box	171-500-010
Verwendung / Ability for	Füllmenge / Filling capacity
Getriebe / Gear K16	0,1 kg
Getriebe / Gear K18	0,1 kg
Getriebe / Gear K23, K28	0,1 kg
Getriebe / Gear K33	0,1 kg

TIN-100-013

Getriebefett / Gearbox grease MOBIL Glygoyle 30 (100-013-048)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
1 l Flasche / Bottle	159-016-035
Verwendung / Ability for	Füllmenge / Filling capacity
Getriebe / Gear ZKM60, ZKM75	0,5 l

Vakuumpumpenöl / Vacuum pump oil MOBIL Rarus 427 (100-013-032)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
1 l Flasche / Bottle	171-500-015
5 l Kanister / Canister	171-500-016
10 l Kanister / Canister	171-500-017
Verwendung / Ability for	Füllmenge / Filling capacity
VP 020	0,5 l
VP 200	7 l
VP 300	7 l

Lebensmittelfett / Lubricating grease Rivolta F.L.G. 4-2 (100-013-036)
https://info.nsf.org/USDA/letters/125886.pdf

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
0,14 kg Fettpresse / Grease gun	151-001-067
1 kg Dose / Box	100-013-007
Verwendung / Ability for	Füllmenge / Filling capacity
Scheren / Shear	0,01 kg
Getriebe / Gear SH-BBH	0,1 kg

Lebensmittelfett / Lubricating grease Rivolta F.L.G. GT-2 (100-013-057)
https://info.nsf.org/USDA/letters/140657.pdf

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
0,18 kg Fettpresse / Grease gun	028-100-006
1 kg Dose / Box	100-013-058
Verwendung / Ability for	
Trimmer	
Hand Skinner	

TIN-100-013

Schmierfett / Grease OKS 475 (100-013-038)

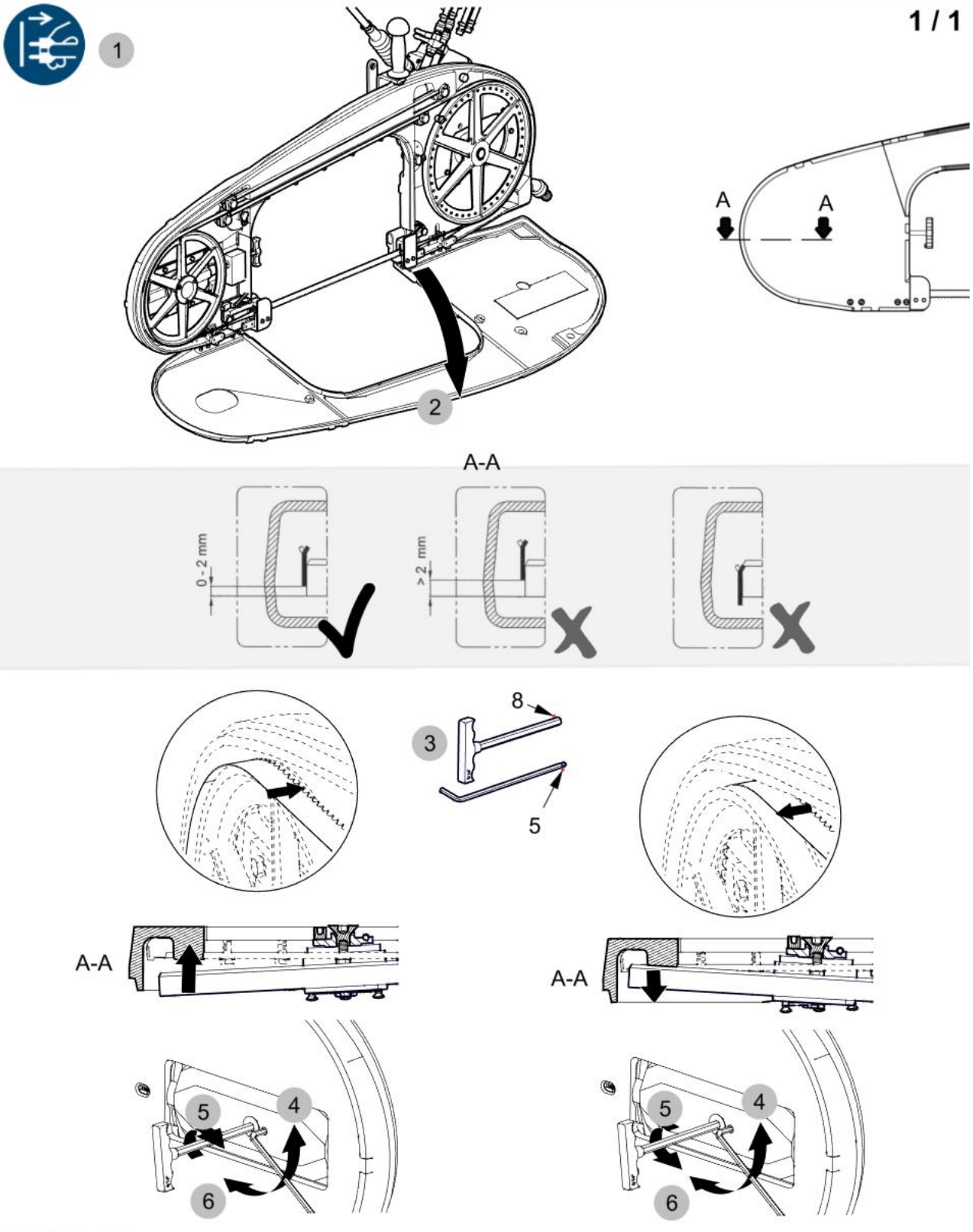
VK Gebinde / Disposal dimensions	Teile Nr. / Item No
0,4 kg Kartusche / Cartridge	100-013-037
0,14 kg Fettpresse ST / Grease Gun ST	151-002-039
0,14 kg Fettpresse EDF, SD11 / Grease Gun (EDF, SD11)	047-004-002
Verwendung / Ability for	Füllmenge / Filling capacity
Getriebe / Gear ST, SST, BBST	0,07 kg
EDF, SD11	0,03 kg
STUN-HE-M, STUN-HE-PP	

Schmierfett / Grease OKS 479 (100-013-039)

VK Gebinde / Disposal dimensions	Teile Nr. / Item No
1 kg Dose / Box	100-013-039
Verwendung / Ability for	Füllmenge / Filling capacity
Getriebe / Gear GM	0,1 kg
Getriebe / Gear ZKM25	0,1 kg
Getriebe / Gear FK40	0,1 kg

SB-MAN **TIN-010844** 1-5

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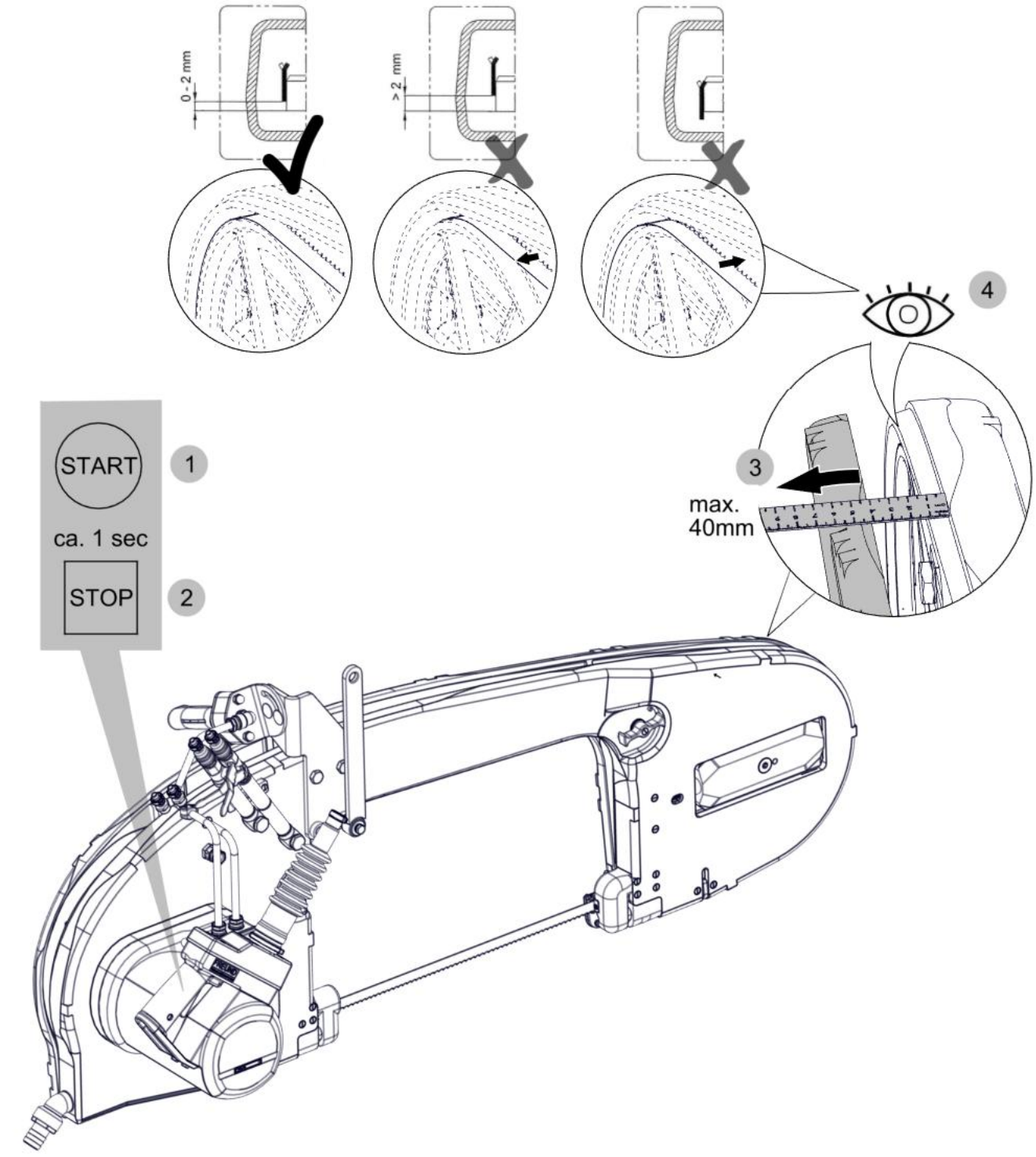


TIN-010844 -002

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SB AUT**TIN-010847**

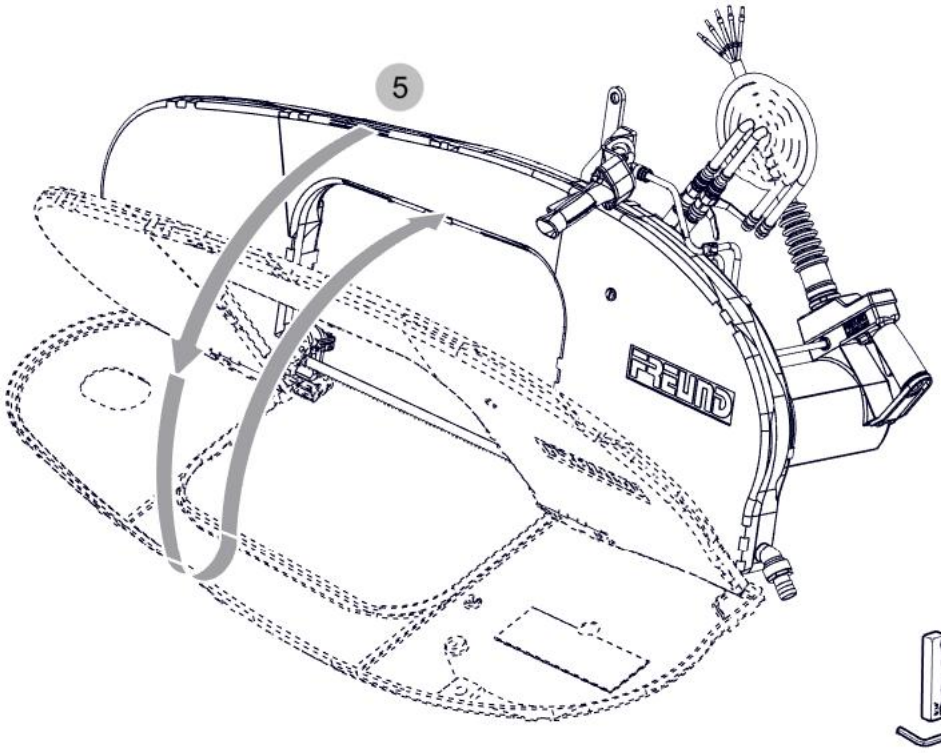
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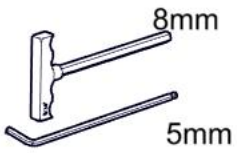


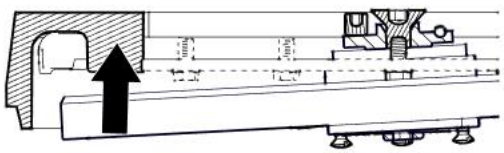
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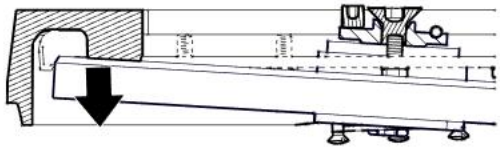
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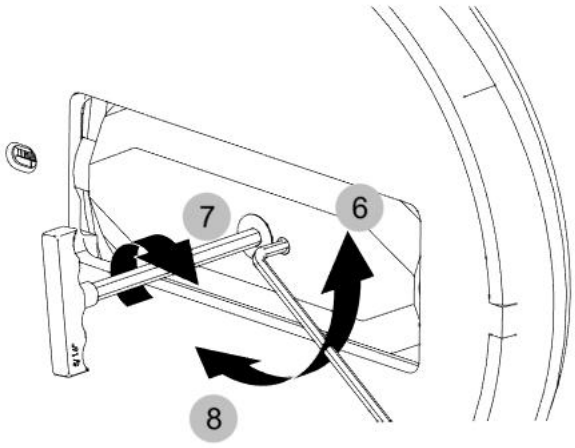
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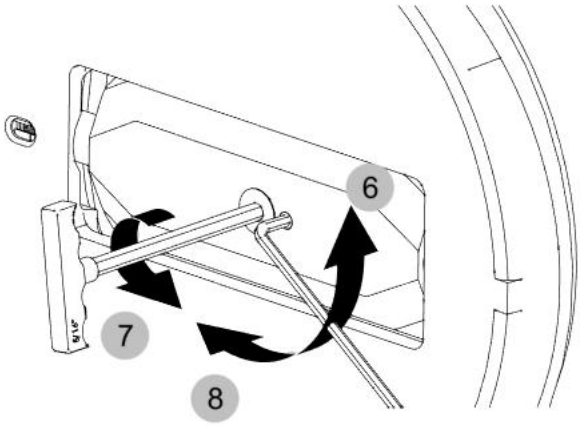












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EU-Declaration of Conformity

GERMAN QUALITY SLAUGHTER-TOOLS

in the sense of the EC Machinery Directive 2006/42/EC, Annex II, No.1 A.

Manufacturer	**FREUND Maschinenfabrik GmbH & Co. KG** **Greifswalder Str. 5** **DE-33106 Paderborn**
Documentation Authorised Representative	**FREUND Maschinenfabrik GmbH & Co. KG** **Greifswalder Str. 5** **DE-33106 Paderborn**

Hereby we declare that the machine,

Type **Splitter-band-saws**

Sample

complies with all relevant provisions of the EC Machinery Directive 2006/42/EC.

The machine also complies with all relevant provisions of the following EC Directives:

(EU) 1935/2004	**Food Saftey**

The following harmonised standards (or parts of these standards) have been applied:

DIN EN ISO 12100:2011-03	**DIN EN ISO 13732-3:2008**
DIN EN 60204-1:2018	**DIN EN 12984:2011-02**
DIN EN 13861:2012-01	**DIN EN 60529:2014-09**
DIN EN 60745-2-20:2010-02	

Material Declaration of Conformity

GERMAN QUALITY SLAUGHTER-TOOLS

Manufacturer	**FREUND Maschinenfabrik GmbH & Co. KG** **Greifswalder Str. 5** **DE-33106 Paderborn**
Authorised representative	**Andreas Kröger** **Leiter mechanische Konstruktion**
Email	**mail@freund.eu**

FREUND Maschinenfabrik GmbH & Co. KG hereby confirms that the articles and their materials that come into contact with food when used as intended conform with the following general requirements:

- **Regulation (EC) No. 1935/2004**
  We hereby declare that the product (machine type) listed below conforms to the requirements of Regulation (EC) No. 1935/2004, which states that materials and articles intended to come into contact with food must be designed and manufactured in such a way that, under normal or foreseeable conditions of use, such materials and articles do not release any constituents into food that could endanger human health or alter the composition of the food.
- **Regulation (EU) 10/2011**
  The above product has been manufactured in accordance with Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food.
- **Regulation (EC) No. 2023/2006**
  The product has been manufactured in accordance with the requirements of Regulation (EU) No. 2023/2006 on good manufacturing practice for materials and articles intended to come into contact with food. This Regulation ensures that materials and articles intended to come into contact with food are manufactured under conditions that ensure their proper quality and conformity. Such materials and articles are manufactured under strict hygienic conditions to ensure product safety and satisfy food safety requirements.

This applies to the following machine types and their spare parts:

Machine type: **FREUND – Splitter-Band-Saw**

Machine parts	Material designation	Comment
Band saw blades	Tool stell	
Machine housing	Aluminum	
Motor housing	Aluminum	
Various components (guide blocks, hydraulic blocks)	Aluminum	
Wheels	Stainless steel	
Guide plates	Carbide	
Various fasteners	Stainless steel	
Various sealing elements	Elastomer	

Paderborn, 20.08.2025

Material Declaration of Conformity

Head of Mechanical Design