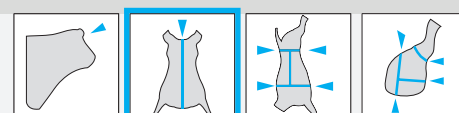


OPERATING MANUAL SPLITTER-BAND-SAW

Translation of original manual

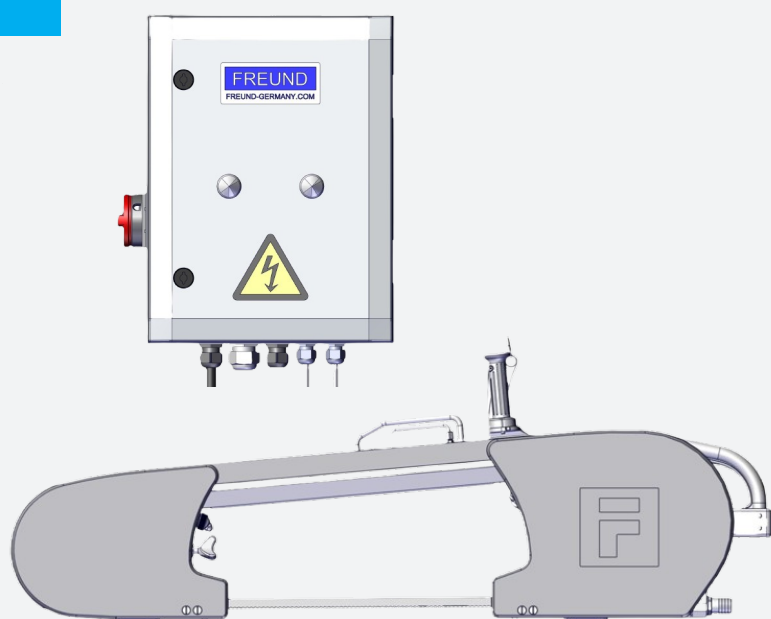


SPLITTER-BAND-SAW MODELS

- WBS51-08
- WBS56-18
- WBS51-08nc

CONTROL BOX MODELS

- SG WBS
- SG WBS51-08nc



Imprint

Home address	FREUND Maschinenfabrik GmbH & Co. KG Greifswalder Straße 5 33106 Paderborn, GERMANY
Fon	+49 5251 1659-0
E-Mail	mail@freund.eu
Internet	www.freund-germany.com
Sales	+49 5251 1659-0 sales@freund.eu

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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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1 About this Manual

The WBS51-08 and WBS56-18 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

- 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.



Observe the assembly manual or spare parts lists

Further information can be found in the assembly manuals and spare parts lists.

1.5.3 Symbols



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



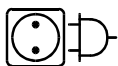
Glue

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



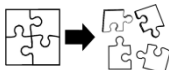
Power plug

Indicates connection of the machine to the power network.

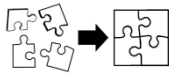


Releasing pressure

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

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 Site Operator's Responsibilities

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 16 years may be employed only if this is required as part of their vocational training and if they have read and understood the safety instructions. Their safety must be ensured by a supervisor.

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.

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 site 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 local hygiene and workplace regulations.

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

Personal protective equipment The site operator must provide suitable personal protective equipment for operating staff and make sure this equipment is used.

For hygienic reasons, each employee must have his/her own personal protective equipment.

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

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

2.3 Employee Responsibilities

- | | |
|-------------------------|---|
| Operating staff | <p>The operating staff must be properly instructed and trained by the employer. Staff who have read and understood the safety instructions and have been properly familiarized with the operation of the machine can be regarded as trained.</p> <p>Operating staff must be familiar with the operating manual and the applicable OHS and accident prevention regulations.</p> |
| Qualified personnel | <p>Qualified personnel are defined as skilled employees who, due to their vocational training, have the knowledge and experience required in their field of work.</p> <p>Assembly, maintenance and repair work as well as troubleshooting may only be carried out by qualified personnel.</p> <p>Qualified personnel must be familiar with the operating manual and the applicable OHS and accident prevention regulations.</p> |
| Safety at the workplace | <p>Maintain a stable upright position and keep your balance. Avoid awkward postures.</p> <p>Keep your workplace clean and tidy. Untidy workplaces can cause accidents.</p> <p>Always wear the personal protective equipment provided.</p> <p>Keep children, young persons and untrained staff away from the machine.</p> |
| Machine safety | <p>Before starting any work, carefully check the machine for proper function in accordance with the intended use.</p> <p>Do not set the machine into operation if it does not work correctly.</p> <p>Switch off the machine immediately if it no longer works correctly and have it checked.</p> <p>Have defective safety devices, switches or other defective machine parts repaired.</p> <p>Notify your employer or his authorized representative of any changes to the machine which may affect your safety.</p> |
| Emergency procedures | <p>In case of an accident provide first aid and call a doctor and emergency medical services.</p> <p>Notify your employer or his authorized representative of every accident.</p> |

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 to DIN VDE 0701-0702/EN60204-1



Fig. 2-1

All our electrical equipment is checked by an electrician and an inspection sticker affixed before initial start-up and after a change or maintenance at our plant in accordance with electro-technical standards of DIN VDE 0701-0702/EN 60204-1 (Fig. 2-1).

The inspection sticker indicates the date of the next inspection.

The inspection period for plant and machinery used in abattoirs and cutting plants is six months.

2.6 Residual risks

The machine has been built according to the scientific and technological state of the art and complies with the basic occupational health and safety 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 hazards involved which cannot be eliminated by design measures:

- Danger to life from live machine parts in electrical machinery.
- Danger of injury from compressed air/overpressure in pneumatic machinery.
- Risk of injury from negligent handling of personal safety equipment while operating the machine, during maintenance and repair work and during cleaning and disinfection
- hearing damage from noise if noise emissions exceed 75 dB(A)
- danger of burning on hot surfaces
- Danger of injury from breakage or ejection of fragments of the cutting tool.
- danger of injury from flying pieces of meat and bone fragments
- danger of crushing injuries to fingers and hands from getting caught when closing the cover.
- Cutting injuries from cutting tools

2.7 Intended use

- WBS51-08 (nc) The splitter band saws WBS51-08 and WBS51-08nc
- are intended for halving pigs in industrial and medium-sized enterprises.
 - are intended for use with low gambrels.
 - may be operated only with the provided safety devices, which must be fully functional.
 - may only be operated in combination with the associated control box.

- WBS56-18 The splitter band saws WBS56-18
- are intended for halving large livestock in mixed plants and cattle slaughterhouses.
 - are intended for high-throughput line slaughtering.
 - may be operated only with the provided safety devices, which must be fully functional.
 - may only be operated in combination with the associated control box.

Operating the machine within the limits of its intended use also involves:

- observing the safety instructions.
- proper execution of repair and maintenance work.
- regular cleaning of the machine.

Any other use is considered as contrary to the intended use and poses risks to the safety of operating staff.

Disclaimer of liability FREUND Maschinenfabrik does not accept liability for any damage resulting from improper use of the machine.

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:

- cutting and sawing of other materials such as wood, plastic or stone.
- using the machine without the control box SG WBS51-08.
- 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 (butterfly screw) with voltage limitation
2HATD	Two-hand synchronous safety circuit	Improved two-hand safety circuit, complies with DIN EN ISO 13851.
EWV	Electrical water valve	Is used to automatically control the cold water supply (cooling, rinsing)
EWV Des	Electrical water valve	Is used to automatically control the hot water supply (disinfection)
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-SB	Safety transformer	Generates the required safety extralow voltage for 42V machines; complies with the requirements of EN60204-1 and EN61558-1
SG WBS	Control box	Monitors the following safety devices: • Magnetic switch on cover flap • Two-hand safety switch • Motor monitoring Controls the following functions and components: • Motor switch (motor contactor) • Electrical water valves (cooling, disinfection)

Abbreviation	Designation	Meaning
SG WBS51-08nc	Control box	Monitors the following safety devices: • Magnetic switch on cover flap • One-hand switch • Motor monitoring Controls the following functions and components: • Motor switch (motor contactor)

3.2 Overview of the machine

3.2.1 Splitter band saws WBS51-08 and WBS56-18

View

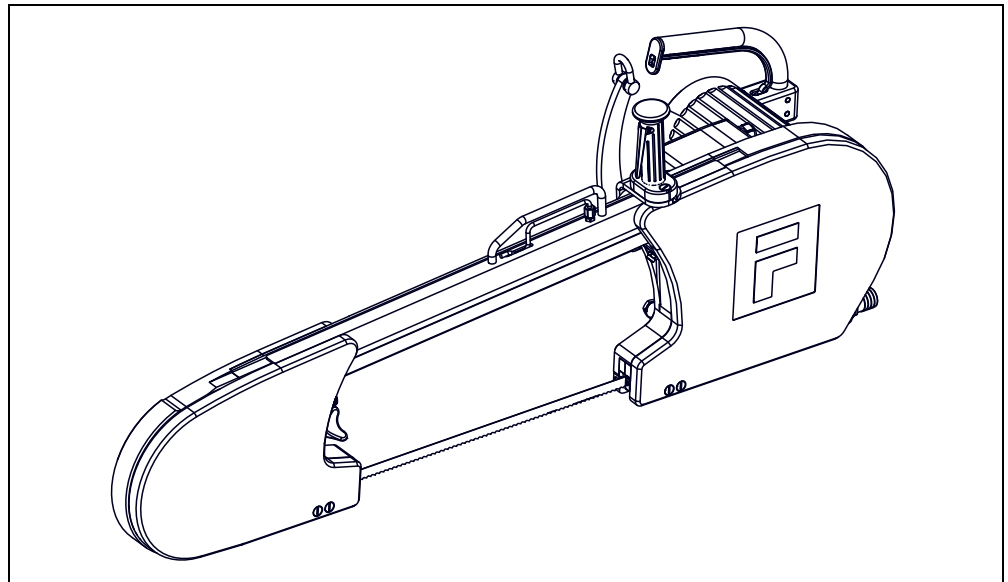


Fig. 3-1 Illustration example WBS51-08

- Equipment
- Voltage selection 42 Volt, 400 Volt
 - Band saw blade replacement with voltage limitation (torque limit)
 - One-hand operation of the cover
 - Two-hand safety switch
 - Ergonomically designed lever
 - Built-in interior disinfection

Connections

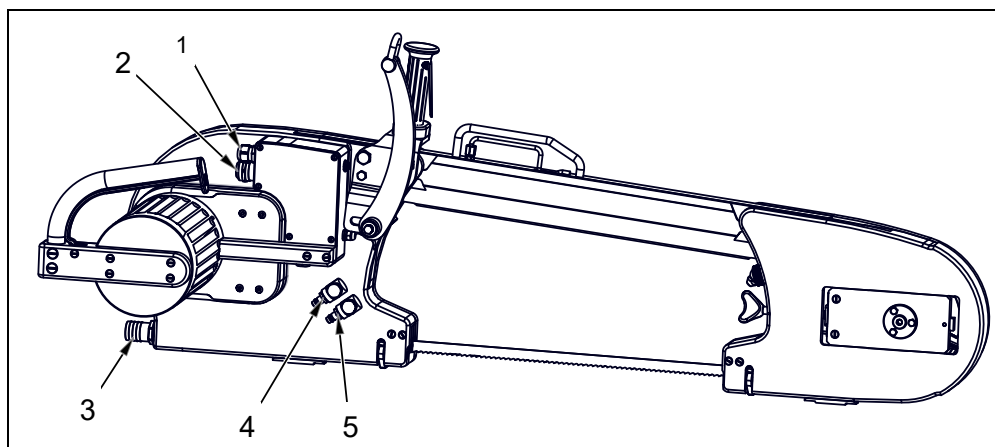


Fig. 3-2 Position of the connections

No.	Designation
1	Connection for control line
2	Connection for power supply
3	Connection for water outlet
4	Water hose connection (disinfection)
5	Water hose connection (cooling)

WBS51-08 Dimensions You can find the corresponding installation manual in the appendix under the heading **TIN-016106**.

Optional accessories

	Part No.
Balancer F70-3	920-476-000
Transformer TR7 SG WBS	912-030-410
Disinfection cabin DESK-04	913-505-002

WBS56-18 Dimensions You can find the corresponding installation manual in the appendix under the heading **TIN-016107**.

Optional accessories

	Part No.
Balancer F100-3	920-479-000
Transformer TR7 SG WBS	912-030-410
Disinfection cabin DESK-04	913-505-002

Serial number

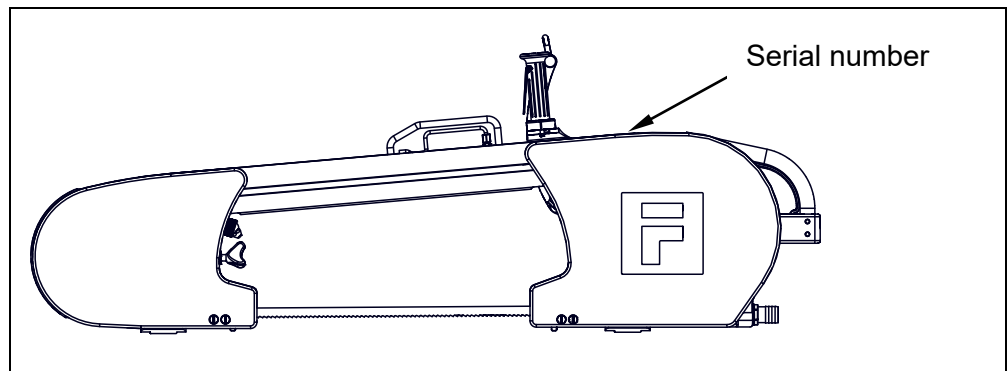


Fig. 3-3 6-digit serial number

3.2.2 Splitter band saw WBS51-08nc

WBS51-08nc

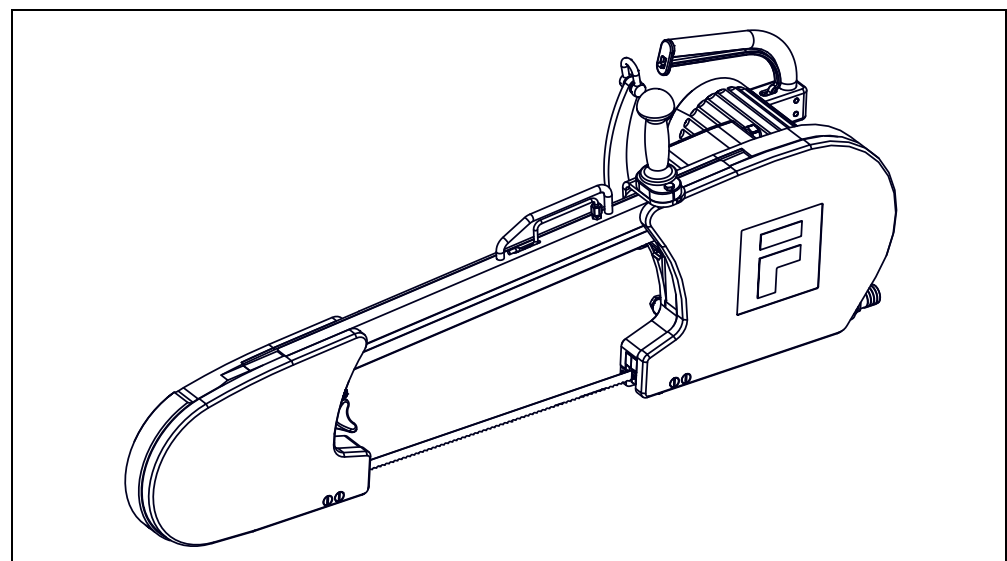


Fig. 3-4 view WBS51-08nc

- | | |
|----------------------|---|
| Equipment | Power supply 400V (via control box SG WBS51-08nc) |
| | Band saw blade replacement with voltage limitation (torque limit) |
| | One-hand operation of the cover |
| | One-hand control |
| | Ergonomically designed lever |
| Equipment (optional) | Two-hand safety switch |

Connections
WBS51-08nc

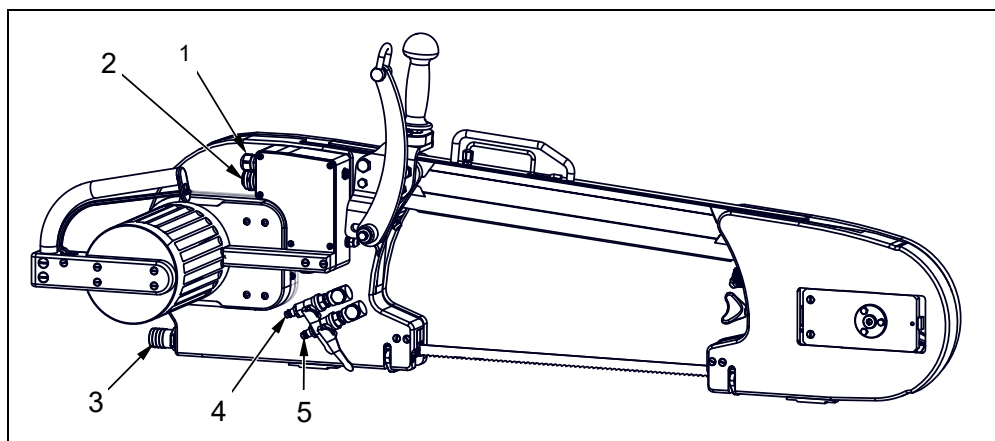


Fig. 3-5 Position of the connections

No	Designation
1	Connection for control line
2	Connection for power supply
3	Connection for water outlet
4	Water hose connection (hot water)
5	Water hose connection (cold water)

Dimensions
WBS51-08nc

You can find the corresponding installation manual in the appendix under the heading **TIN-016108**.

Optional
accessories

	Art.-Nr.
Balancer Federzug F70-3	920-476-000
Disinfection cabin DESK-04	913-505-002

Serial number

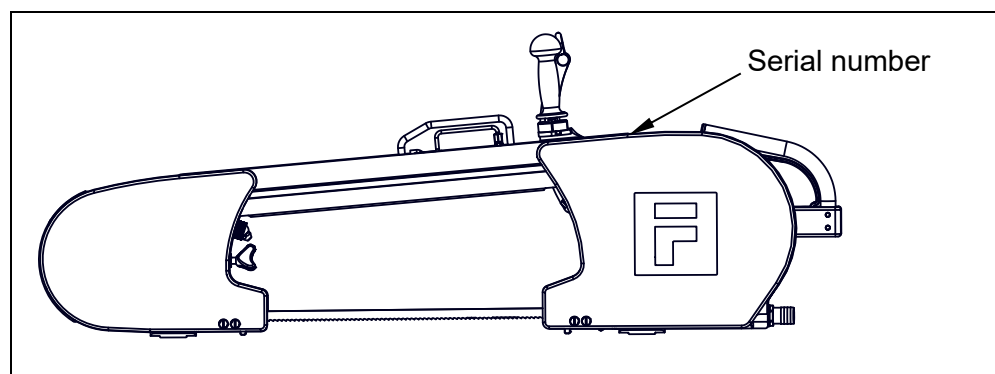


Fig. 3-6 6-digit serial number

3.2.3 Control box SG WBS (WBS51-08 and WBS56-18)

- Use 400V / 42V
- Monitoring of safety devices:
- Magnetic switch on cover flap
 - Two-hand safety switch
 - Motor monitoring
- Control of functions:
- Motor switch (motor contactor)
 - Electrical water valves (cooling, disinfection with time control)
- 42V • Transformer switch (transformer contactor)

View

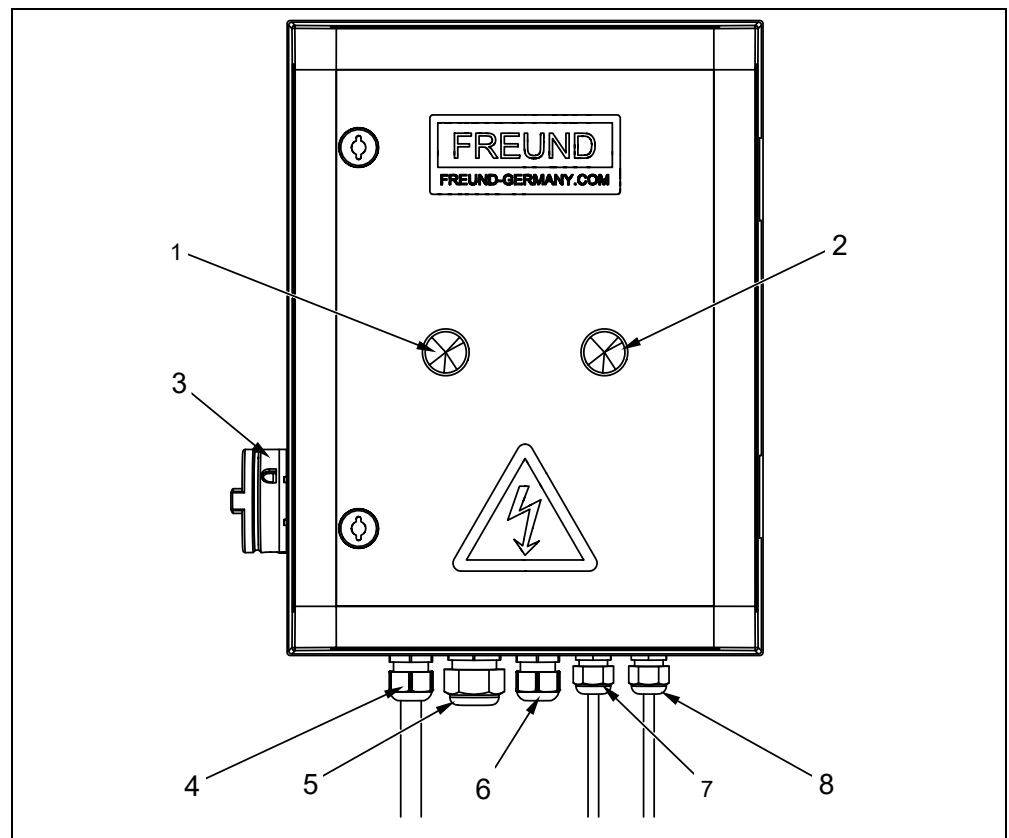


Fig. 3-7 View of control box SG WBS51-08

No	Designation
1	Signal lamp (red)
2	Signal lamp (green)
3	Main switch
4	Power cable connection: Control box
5	Motor cable connection
6	Control line connection
7	Control connection: Electrical water valve (cooling)
8	Control connection: Electrical water valve (disinfection)

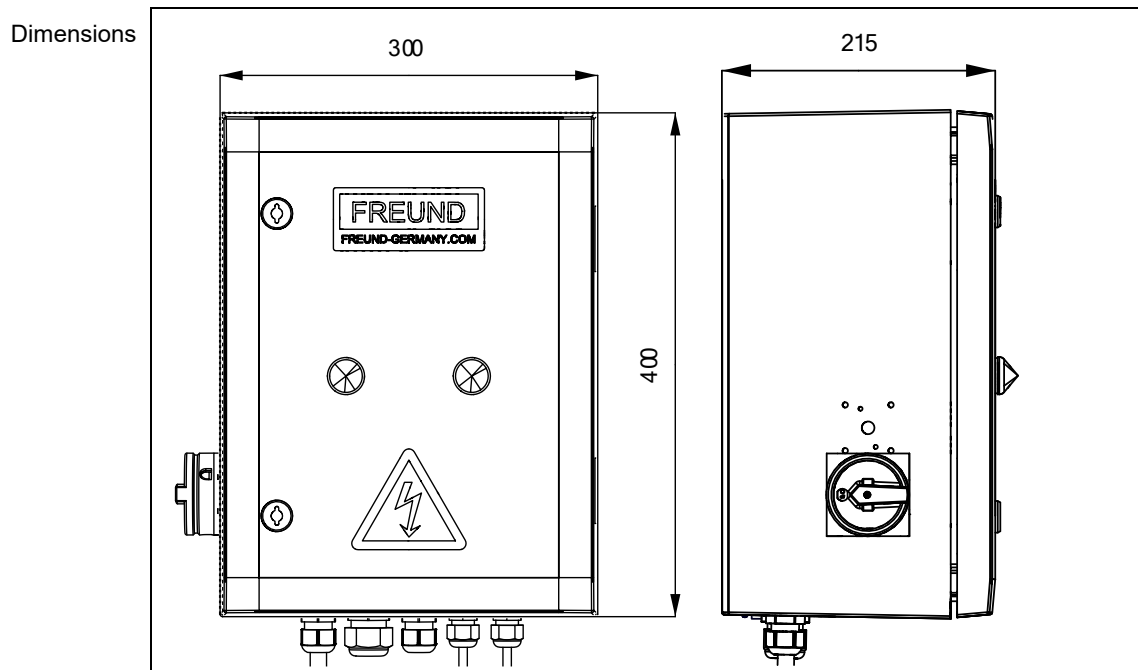


Fig. 3-8 Dimensions of the control box (specifications in mm)

3.2.4 Control box SG WBS51-08nc

Use Monitoring of safety devices:

- Magnetic switch on cover flap
- Motor monitoring

Control of functions:

- Motor switch (motor contactor)

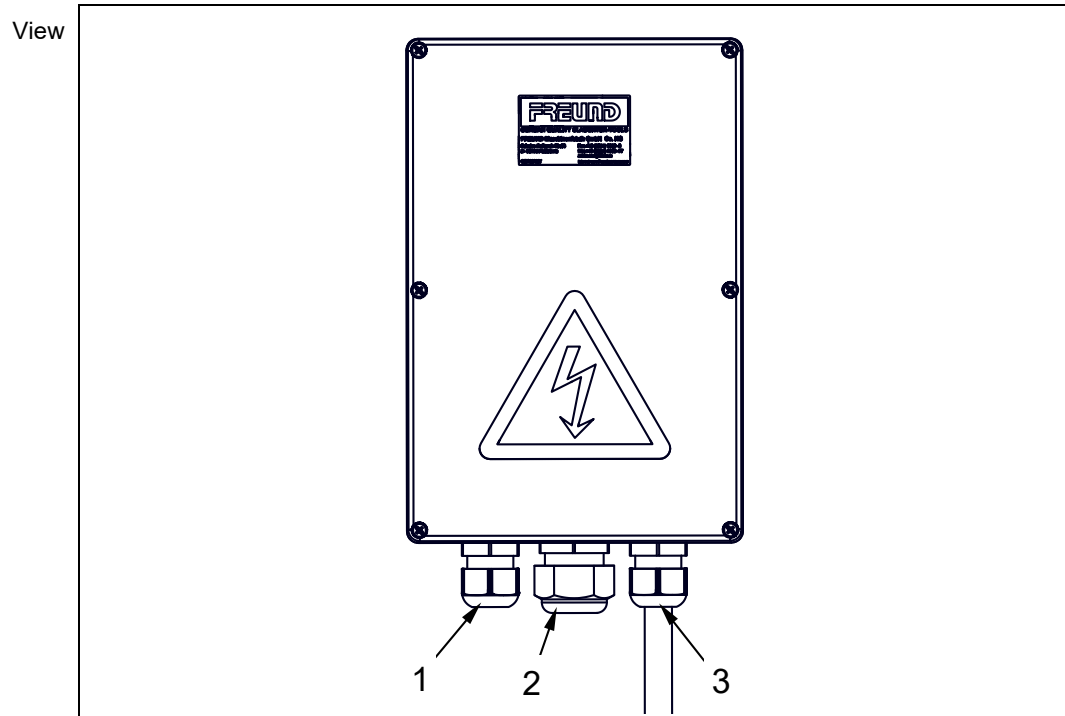


Fig. 3-9 View of control box SG WBS51-08nc

No.	Designation
1	Motor cable connection
2	Control line connection
3	Power cable connection: Control box

Dimensions

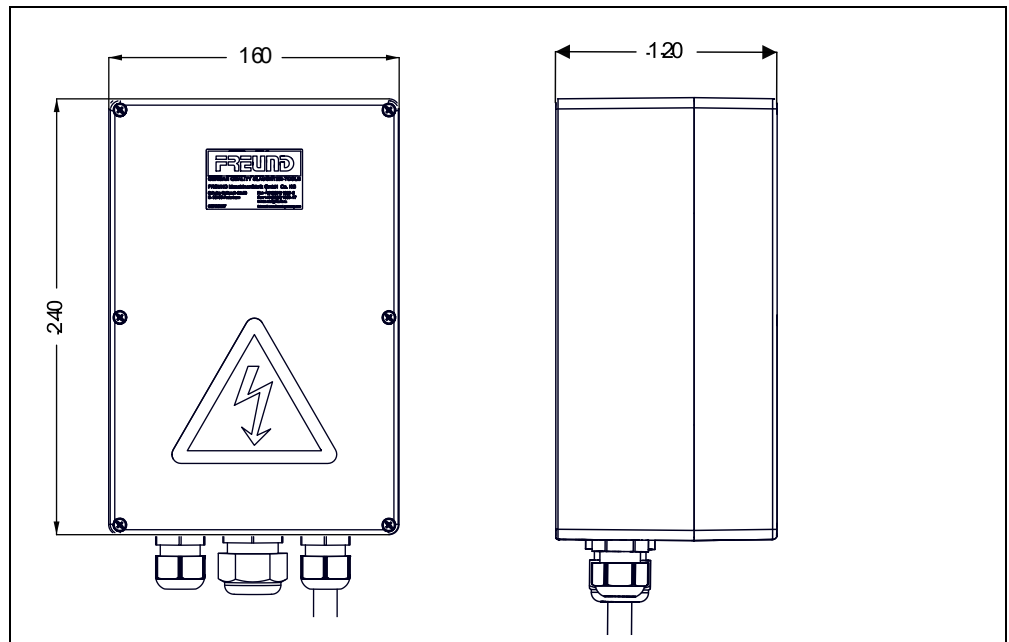


Fig. 3-10 Dimensions of the control box SG WBS51-08nc (specifications in mm)

3.3 Technical data

Splitter band saw

	WBS51-08		WBS51-08nc	WBS56-18	
Weight [kg]	68 (without cable)			92 (without cable)	
Length [mm]	1490		1490	1700	
Cutting depth [mm]	199 - 246		199 - 246	265-318	
Cutting width [mm]	516		516	560	
Drive type	Electric, 3-phase (alternating current)		Electric, 3-phase (alternating current)	Electric, 3-phase (alternating current)	
Motor rating [kW]	2,3		2,3	2,75	
Duty type	S6-30%		S6-30%	S6-30%	
Speed [rpm]	890		890	890	
Operating voltage [V]	42	400	42	42	400
Rated current [A]	40	4.3	50	50	5,2
Current frequency [Hz]	50		50	50	
Protection type (motor)	IP 65		IP 65	IP 65	
Noise emission [dB (A)]	≤ 70*		≤ 70*	≤ 70*	
Vibration [m/s²]	< 2.5		< 2.5	< 2,5	
Water connection ["]	3/8		3/8	3/8	
*can rise to 95 dB (A) during operation					

Control box

	SG WBS51-08		SG WBS51-08nc
Weight [kg]	approx. 10		
Height [mm]	400		240
Width [mm]	300		160
Depth [mm]	215		120
Operating voltage [VAC]	42	400	400
Rated current [A]	55	4,3	4,3
Control voltage [VDC]	24		24
Current frequency [Hz]	50		50

3.4 Rating plate

Splitter band saw The rating plate is attached to the front of the motor.

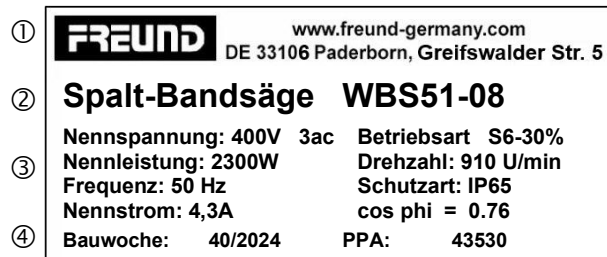


Fig. 3-11 Rating plate example

Description	
1	Company address
2	Machine type and designation
3	Machine performance data: Rated voltage [V] Duty type Rated output [W] Speed [rpm] Frequency [Hz] Protection class Rated current [A] cos phi factor [cos φ]
4	Week/year of construction and production order number

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](#).

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 26.
- 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 56.

- 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 Installing and setting the balancer

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

For safety reasons, the machine may only be operated with one balancer.

1. Secure the balancer in accordance with the manufacturer's operating manual.
2. Attach the balancer to a higher rail above the workstation or to the ceiling with a rail system.



When an overhead track is used, the distance between the centre of the overhead track or the point where the carcass is suspended and the balancer suspension must be between 350 and 400 mm.

3. Attach the machine to the balancer as top-heavy as possible. The balancer must be set in such a way that the machine can be moved up and down without too much effort. The machine hanger offers a range of attachment options.
4. Readjust the balancer if necessary. Observe the operating manual for the balancer when doing so.

5.4 Setting up the work area

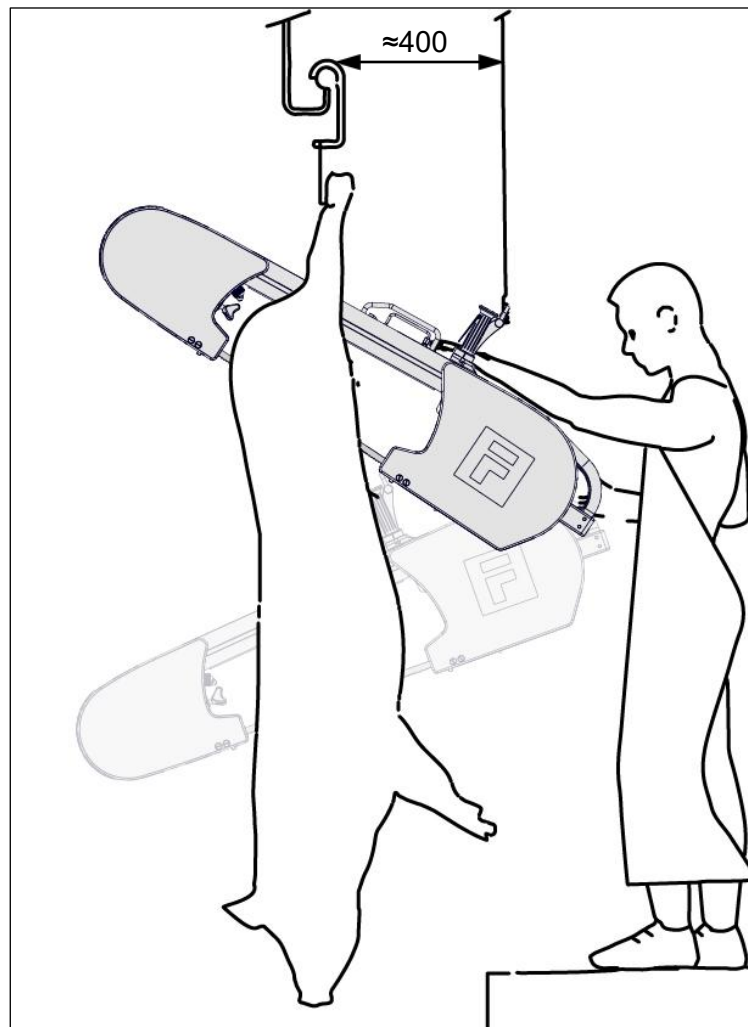


Fig. 5-1 Distance to slaughter line [specifications in mm]

5.5 Aligning the machine



WARNING!

Heavy machine

Death and serious injuries due to falling machine

- Before you start aligning the machine, attach the splitter band saw to the balancer.

The relevant manual can be found in the appendix under the heading **TIN-015055**.

5.6 Fitting the saw blade

The relevant manual can be found in the appendix under the heading **TIN-015071 (2/2)**.

5.7 Installing the control box

5.7.1 SG WBS (WBS51-08 and WBS56-18)

The machine is operated with an external control box. The control box houses the controller for the brake and the timer for internal disinfection.

Hole pattern
SG WBS

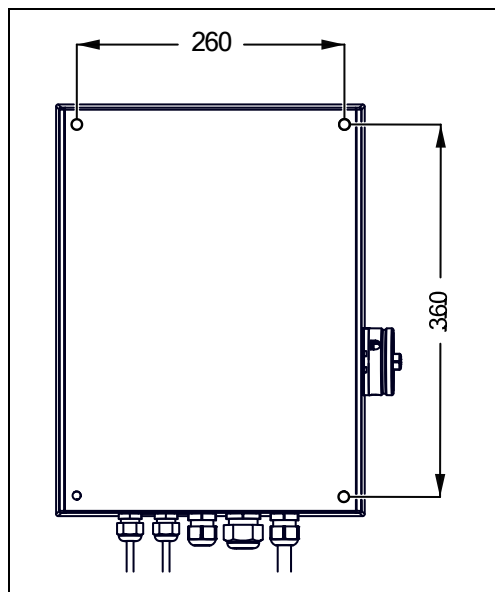


Fig. 5-2 Control box hole pattern SG WBS
[specifications in mm]

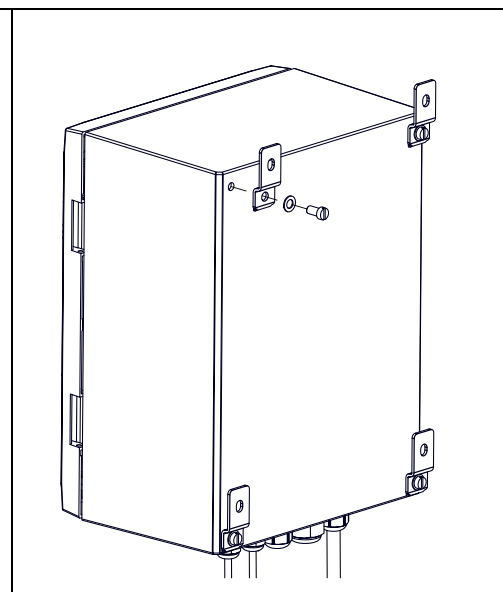


Fig. 5-3 Optionally available wall fastening
set, article no. 100-022-069

5.7.2 SG WBS51-08nc

The machine is operated with an external control box. The control box houses the controller for the brake.

Hole pattern
SG WBS51-08nc

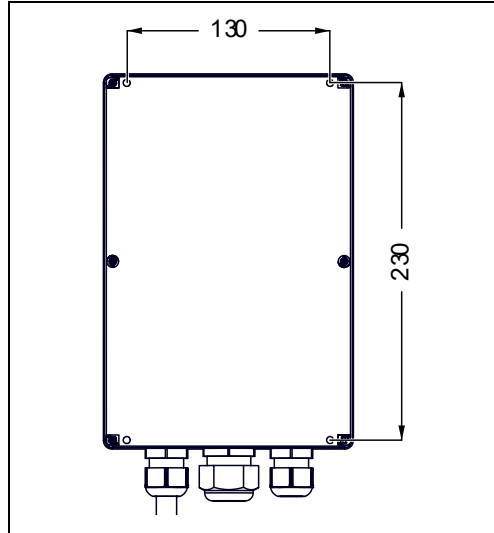


Fig. 5-4 Control box hole pattern SG WBS51-08nc [specifications in mm]

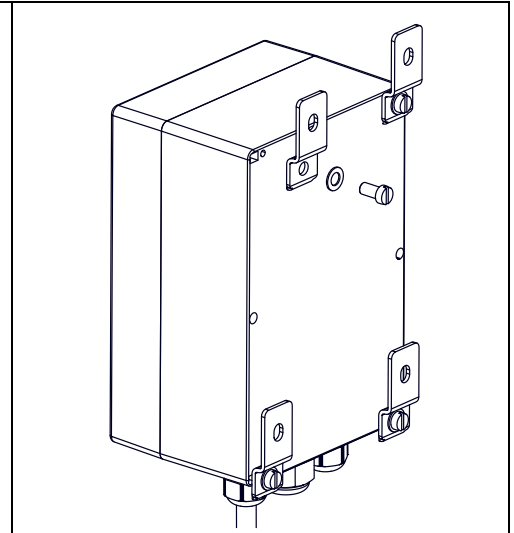


Abb. 5-5 Optionally available wall fastening set, article-no. 100-022-069

5.8 Connecting the machine



DANGER!

Live machine parts.

Danger to life from electric 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 after finishing work.

Length of the
connection cable

The machine's connection cable should not be extended.



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

The splitter band saws may only be used with the appropriate control boxes.

5.8.1 WBS51-08 and WBS56-18 with 42 volt operating voltage and control



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

Electrical
connections

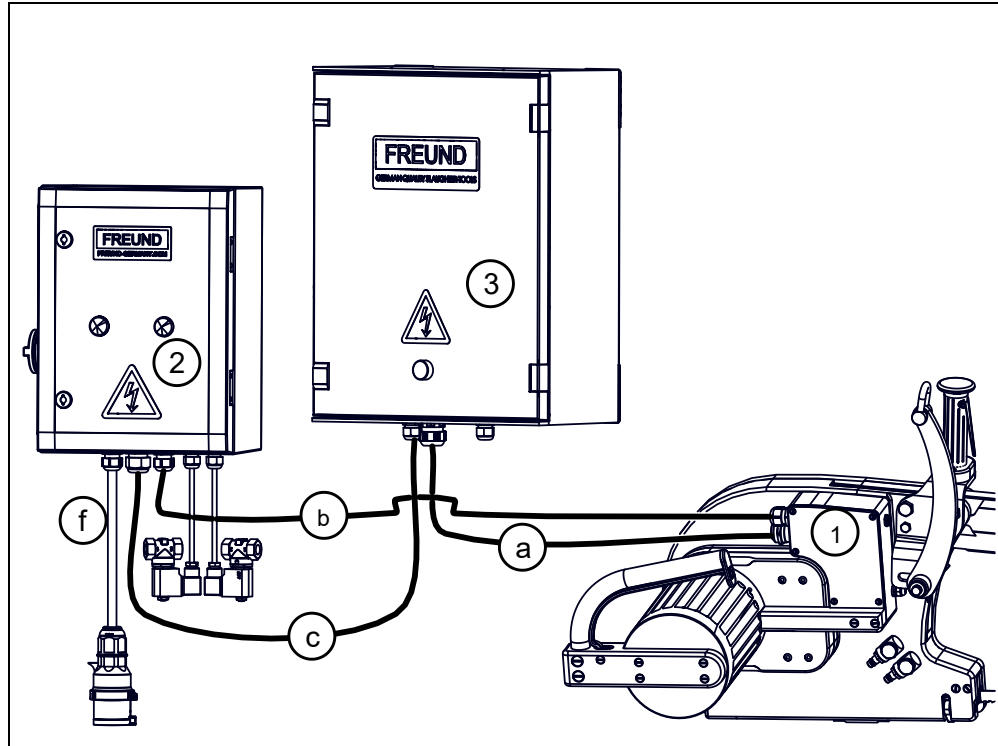


Fig. 5-6 Connection diagram

Pos.	Description
1	Splitter band saw 42 V
a	Motor connection cable for the splitter band saw (cable length: 6 m)
2	Control box SG WBS51-08
b	Control cable (cable length: 6 m)
c	Transformer supply line (400 V)
f	Connection cable to the mains (400 V)
3	Transformer TR7-SB

5.8.2 WBS51-08 and WBS56-18 with 400 V operating voltage and control

Connection
diagram
Electrical
connections

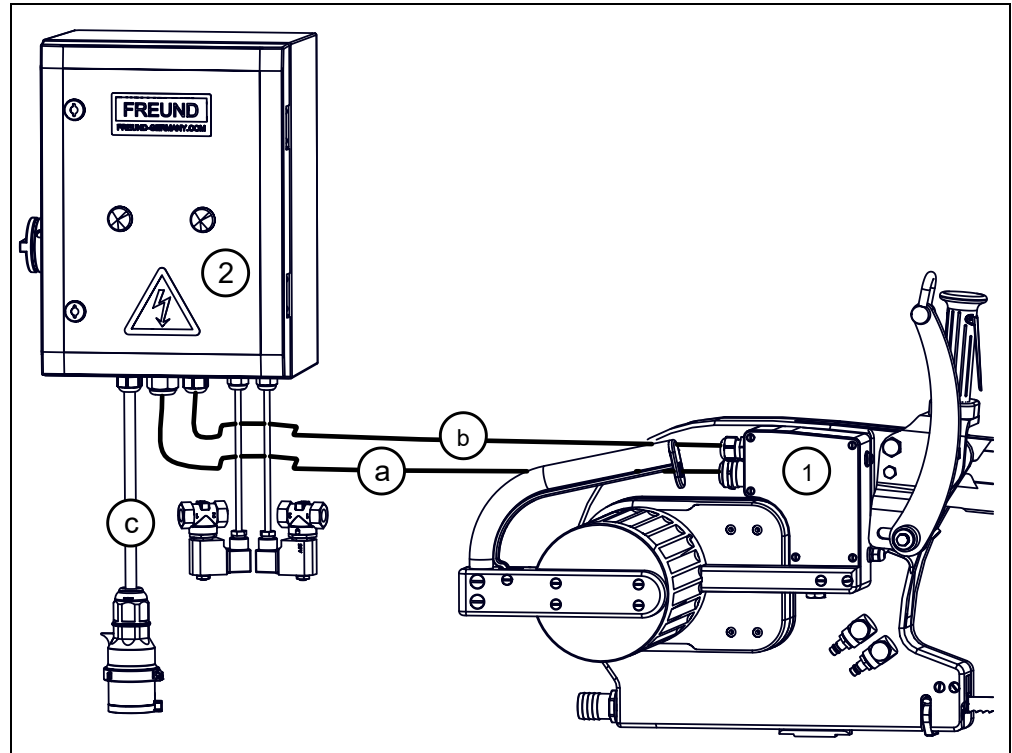


Fig. 5-7 Connection diagram

Pos.	Description
1	Splitter band saw 400 V
a	Motor connection cable for the splitter band saw (cable length: 8 m)
2	Control box SG WBS51-08
b	Control cable (cable length: 8 m)
c	Connection cable to the main supply (400 V)

5.8.3 WBS51-08 and WBS56-18 water supply and control

Connection
diagram
Interior
disinfection and
cooling

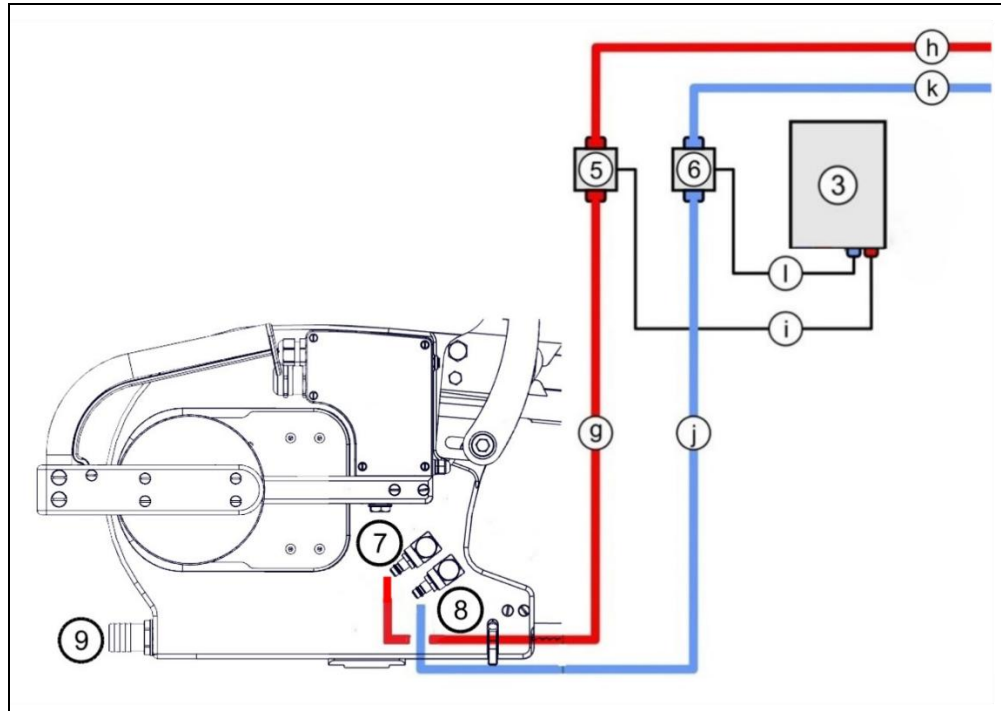


Fig. 5-8 Connection diagram

Pos.	Description
5	Solenoid valve for "interior disinfection" function
g	"Interior disinfection" water hose: Splitter band saw <-> Solenoid valve
h	"Interior disinfection" water hose Solenoid valve <-> On-site connection
i	"Interior disinfection" control cable solenoid valve: Solenoid valve <-> Control box
6	Solenoid valve for "cooling" function
j	"Cooling" water hose: Splitter band saw <-> Solenoid valve
k	"Cooling" water hose: Solenoid valve <-> On-site connection
l	"Cooling" control cable solenoid valve: Solenoid valve <-> Control box
3	Control box SG WBS51-08
7	"Interior disinfection" connection on the splitter band saw
8	"Cooling" connection on the splitter band saw
9	Water outlet on the splitter band saw

5.8.4 WBS51-08nc with 400 volt voltage

Electrical
connections

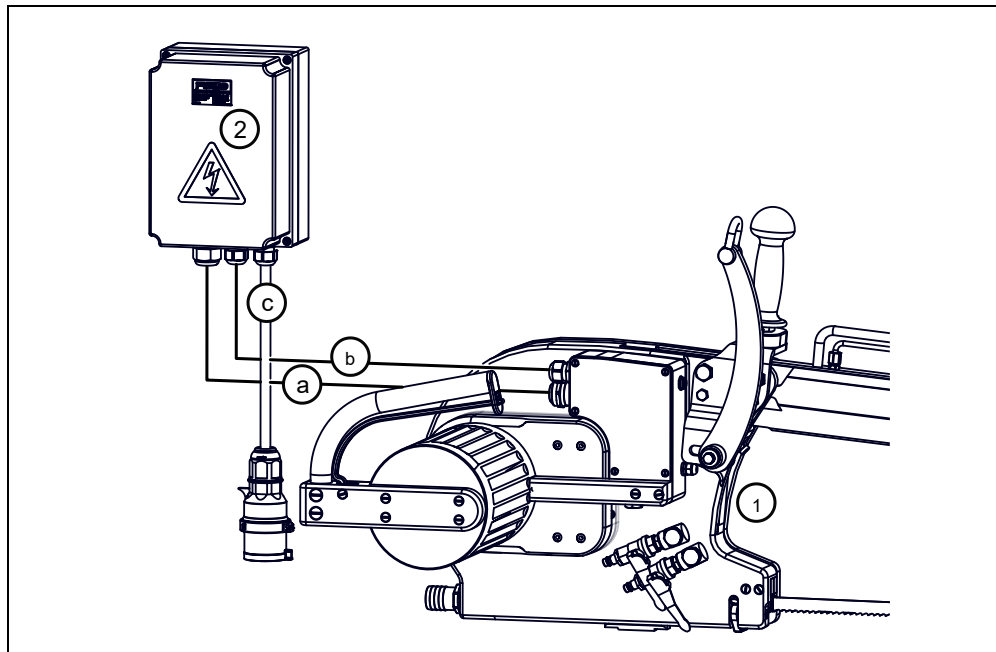


Fig. 5-9 Connection diagram

Pos.	Designation
1	Splitter band saw 400 V
a	Connection cable for the splitter band saw (cable length: 8 m)
2	Control box SG WBS51-08nc
b	Control and signal cable (cable length: 8 m)
c	Mains cable 400 V

5.8.5 WBS51-08nc Water supply

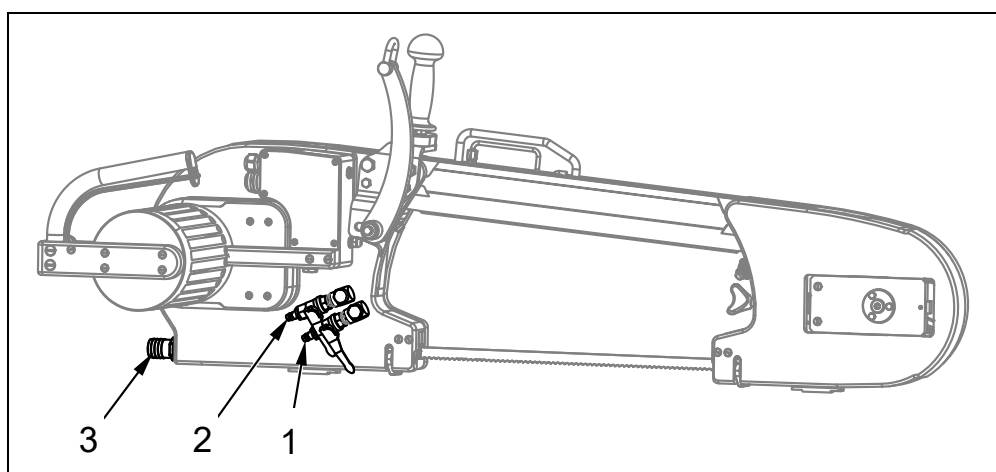


Fig. 5-10 Water connection

Pos.	Designation
1	Cold water connection

2	Hot water connection
3	Water outlet

5.9 Setting the disinfection cycle



The disinfection cycle for internal disinfection is set to 7 seconds in the factory. Please contact FREUND Maschinenfabrik GmbH & Co. KG to change the time value for the disinfection cycle.

6 Operating

6.1 Safety information



WARNING!

Risk of accident caused by insufficiently qualified personnel.

Danger to life and risk of very serious injuries.

- The machine may only be maintained, serviced, operated, and cleaned by qualified personnel.
- Maintenance work on live components may only be performed by trained 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. Turn on the main switch.
The machine is ready for use!
3. 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.
4. Guide the machine into the carcass with the engine running.
5. Guide the machine through the carcass without applying too much force during the sawing operation.

Operation

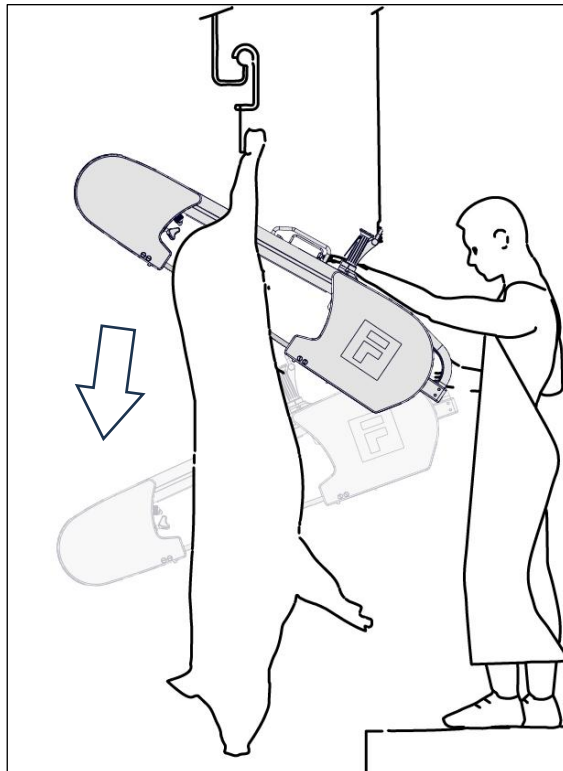


Fig. 6-1 Operating the machine

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

- After work
8. Switch off the main switch.
 9. Close the water supply 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

When changing the gear motor, you need approx. 750 g of grease.

Retail container	Part No.
1-kg can (gear unit)	171-500-010
1-kg can (output wheel)	100-013-007
Grease gun (output wheel)	151-001-067

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

8.4 Maintenance schedule

Some maintenance tasks must be performed at regular intervals.

The table below provides an overview of the maintenance tasks to be performed, together with the maintenance interval. If necessary, adapt the maintenance intervals to your operating conditions.



Further manuals for repair and assembly tasks are available from [FREUND Assistance](#).

Interval	Maintenance job	→ Chapter, page
Daily	Visual inspection before starting work	→ Chapter <i>Daily safety check</i> on page 39
	Check the balancer settings	→ Chapter <i>Installing and setting the balancer</i> on page 30
	Functional test	→ Chapter <i>Operating the machine</i> on page 40
Monthly	Grease the output wheel with 2 strokes from the grease gun through the grease fitting	→ Chapter <i>Recommended lubricants</i> on page 47 → Chapter <i>Greasing the output wheel</i> on page 48
Every 6 months	Electrical recurring inspection in accordance with VDE 0701/0702/EN60204-1	→ Chapter <i>Periodic inspection of electrical equipment</i> on page 48
As necessary	Replace the band saw blade	→ Chapter <i>Replacing the band saw blade</i> on page 48

Interval	Maintenance job	→ Chapter, page
	Replace the guide plates	→ Chapter <i>Replacing the guide plates</i> on page 48

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

8.5 Replacing the band saw blade



The band saw blade is a single-use tool and must not be resharpened.

The relevant manual can be found in the appendix under the heading **TIN-015071**.

8.6 Greasing the output wheel



The output wheel must be greased monthly via the grease nipple using two strokes from a grease gun.

The relevant manual can be found in the appendix under the heading **TIN-016100**.

8.7 Replacing the guide plates

If the guide plates are worn, they must be replaced

The relevant installation manual can be found in the spare parts list under the heading **MTA-015082**.

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

9.3.1 Faults/Machine

Fault	Possible cause	Remedy
Motor not running / stops during work.	The motor is not supplied with 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.
Increase in force required for sawing.	Band saw blade blunt.	Replace the band saw blade, (→ Chapter Replacing the band saw blade on page 48).
	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.	Machine was moved up abruptly.	Move the machine upwards in a smooth movement.
Saw not guided straight while cutting.	Band saw blade guide worn.	Turn or replace the guide plates, (→ Chapter Replacing the guide plates on page 48).
	Cutting alignment is not optimal.	Align the machine vertically. Change the position of the machine, (→ Chapter Aligning the machine on page 32). Prevent the machine from tipping over to the front or sideways at the rear when it moves.
	Band saw blade tension too low.	Make sure that the knob audibly clicks into place when setting the blade tension, (→ Chapter Replacing the band saw blade on page 48).
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 (→ Chapter Recommended lubricants on page 47).

Fault	Possible cause	Remedy
	Fastening bolts loose.	Check the bolts/nuts to ensure they are tight.
	There has been a phase failure.	Have the electrical connections checked and rewired by a qualified electrician. If necessary, have the coil resistance checked.
Motor overheating (temperature > 70 °C).	Incorrect connection cable: cross-section too small and/or connection cable too long.	Use only the original cable from FREUND. Do not extend the connection cable to more than 8 m.
	Loose contact in connection cable.	Have the electrical connections checked by a skilled electrician, and retighten the terminal if necessary.
	Moisture in electrical chamber.	Remove the moisture. If applicable, replace corroded terminals and connections. Replace the cover gasket.
	There has been a phase failure.	Have the electrical connections checked and rewired by a qualified electrician.
	Input voltage too low.	Measure the mains voltage. Select the suitable input at the transformer.
Band saw blade moving in wrong direction.	Connection cable connected incorrectly.	Turn the plug-in connectors in the rotating disc of the phase inverter connector.
The machine saws poorly or does not saw at all.	Band saw blade fitted incorrectly.	Refit the band saw blade with the teeth facing in the direction of the housing, (→ Chapter Replacing the band saw blade on page 48).
	Band saw blade blunt.	Replace the band saw blade, (→ Chapter Replacing the band saw blade on page 48).
Band saw blade getting stuck in carcass.	Incorrect band saw blade type.	Switch off the machine. Replace the band saw blade, (→ Chapter Replacing the band saw blade on page 48).
	Free-cutting action not correct as a result of a changed tooth set.	
	Band saw blade blunt.	

Fault	Possible cause	Remedy
	Band saw blade bent.	Switch off the machine.
	Machine stuck in a bone.	Pull the machine out of the carcass. Increase the kerf.
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 band saw blade tension, (→ Chapter <i>Replacing the band saw blade</i> on page 48).
	Band saw blade soiled.	Clean the machine.
Premature band saw blade breakage.	Band saw blade guide worn.	Replace the guide plates, (→ Chapter <i>Replacing the guide plates</i> on page 48).
	Band saw blade tension set incorrectly.	Readjust the band saw blade tension, (→ Chapter <i>Replacing the band saw blade</i> on page 48).
	Band saw blade constantly running against the upper guide plate.	Guide the machine through the carcass without applying too much force.
	Too much force used when guiding the machine.	
	Balancer is set for a different weight range.	Re-adjust the balancer. Use a balancer with the correct weight range and cable travel.
	Cable travel for balancer jammed.	It must be possible to pull out the cable easily and without jamming it.
	Incorrect balancer settings.	Set the balancer so that the machine slowly slides down under its own weight.
	Upper guide plates are worn.	Turn the upper guide plates or replace them, → Chapter <i>Replacing the guide plates</i> on page 48.

9.3.2 LED status displays in the control box SG SB-WBS

LED status
displays

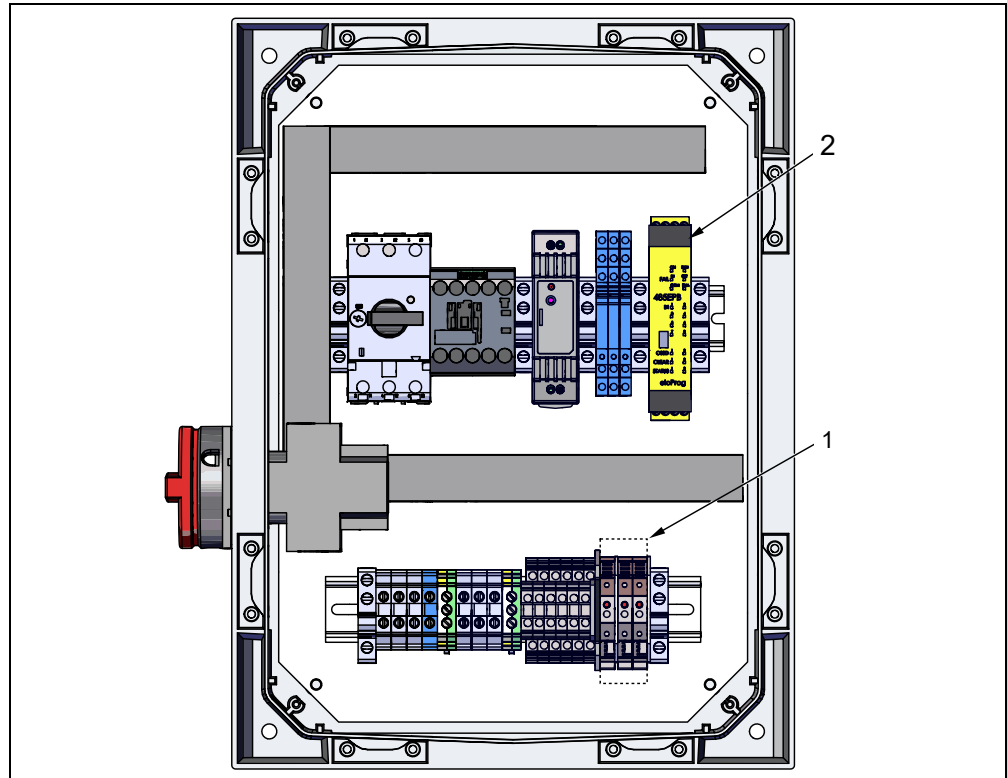
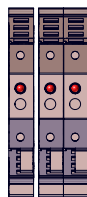


Fig. 9-1 LED status displays in the control box SG WBS51-08

Pos.	Description
1	Error display for power supply
2	Status display for safety module

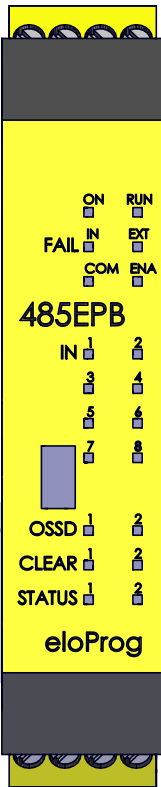
Error display for power supply unit (pos. 1)



LED lights up (LEDs light up) if a fuse was tripped.
The power supply and the control voltage are interrupted.

Status display for safety module (pos. 2)

	IN 1	The LED is activated once mushroom switch ¹ has been pressed.
	IN 2	unassigned
	IN 3	The LED is activated once bar switch ¹ has been pressed.
	IN 4	unassigned

Status display for safety module (pos. 2)		
	IN 5	The closed state of the cover flap is signaled via contact 1.
	IN 6	The closed state of the cover flap is signaled via contact 2.
	Status 1	LED is on when all functional conditions have been met and the system is ready for operation. LED will flash if the motor is running.
	Status 2	The LED is activated if either a fault is detected in the safety module or the machine cover is open.
	OSSD 1	The LED indicates the status of the output: • Illuminated red indicates that the output is inactive. • Illuminated green indicates that the output is active.
	OSSD 2	The LED indicates the status of the output: • Illuminated red indicates that the output is inactive. • Illuminated green indicates that the output is active.
	ON	The control system is switched on.
	RUN	The PLC is active, the user program is processed cyclically, and the process signals (inputs and outputs) are processed.
	COM	Continuous illumination of the COM LED may indicate a continuous data transmission or a communication error on the RS-485 interface.
¹ Component of the two-hand synchronous safety circuit		

9.3.3 LED-Statusanzeigen im Schaltgerät SG SB-WBS51-08nc

LED-status
display

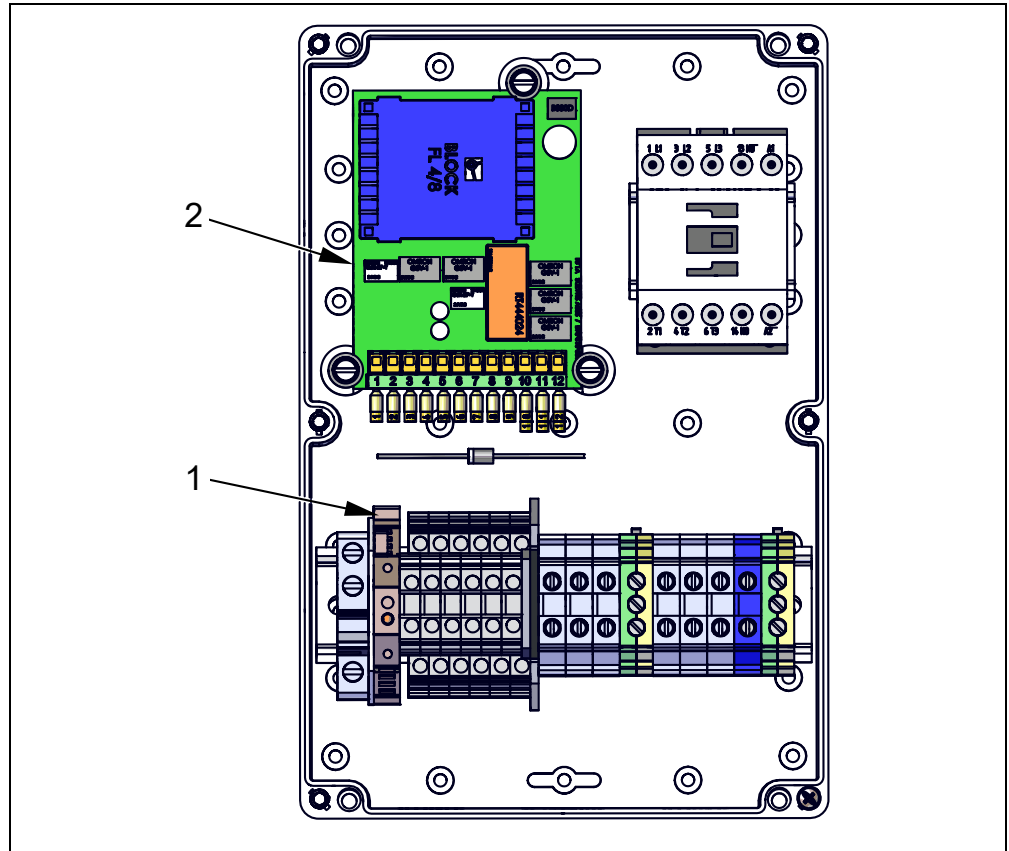


Fig. 9-2 LED-status displays in the control box SG WBS51-08nc

Pos.	Designation
1	Error display for power supply
2	LED 'green' is on when voltage is applied LED 'red' is on when the safety conditions are met, i.e. the one-hand / two-hand switch and cover sensor are closed

Error display for power supply unit (pos. 1)



LED lights up (LEDs light up) if a fuse was tripped.
The power supply and the control voltage are interrupted..

10 Disposal and Recycling

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

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 the machine from the power supply and/or the compressed air supply.
2. Disconnect all electrical connections and supply lines from the machine.
3. Completely disassemble the machine.
4. On oil-lubricated machines, drain all the oil from the machine and remove filter elements, if fitted.
5. Completely degrease the machine.
6. Dispose of waste oil and components and materials soiled with oil in accordance with the applicable environmental regulations.
7. Segregate all materials.
8. Send the individual materials to the appropriate recycling or disposal facilities.
9. Send hazardous waste to a local hazardous waste site.

10.2 Disposing 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.

More Information

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

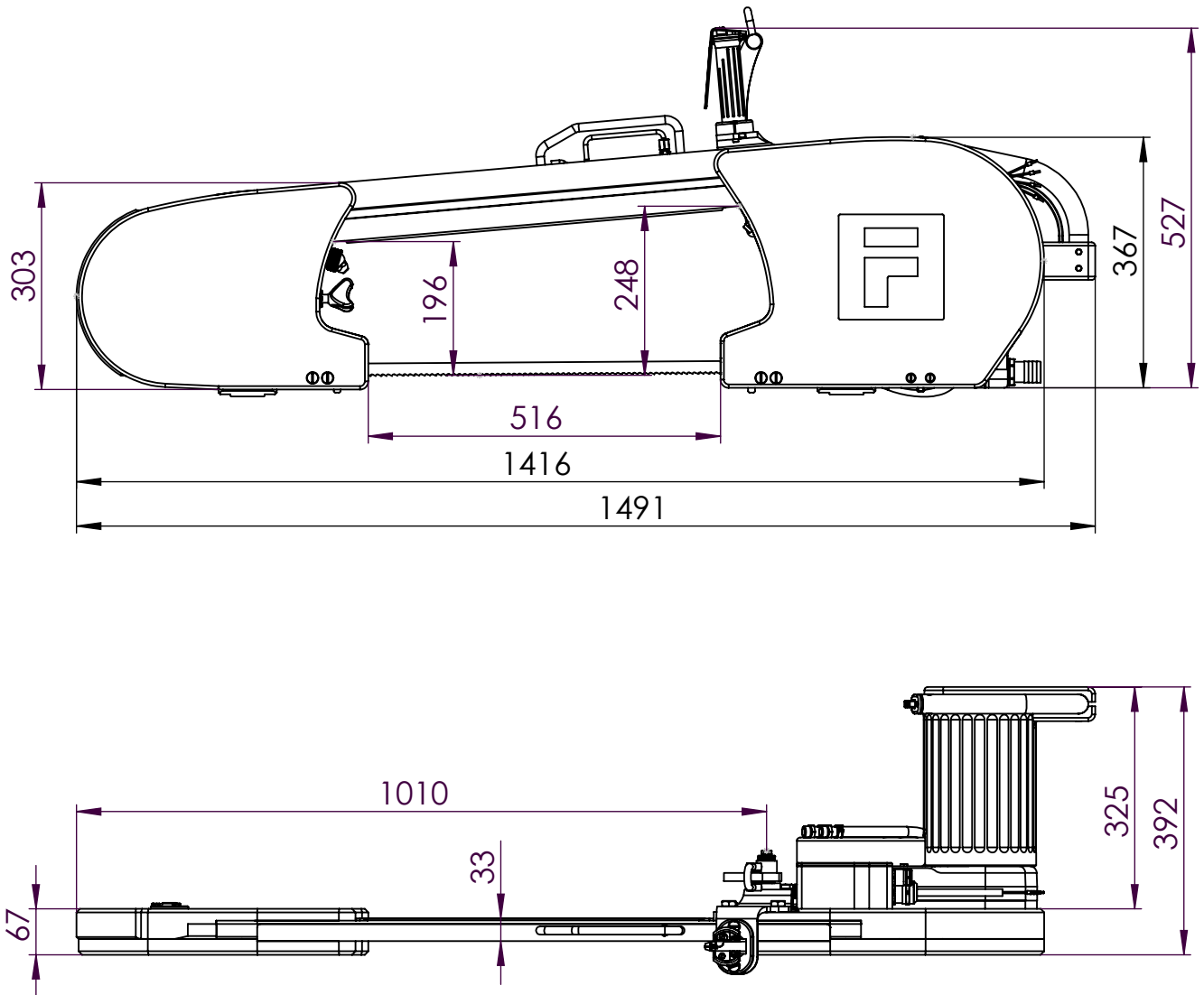
Please refer to the company information in the imprint for the address and telephone numbers.



TIN-016106

WBS51-08

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TIN-016106 000

FREUND Maschinenfabrik GmbH & Co. KG

Greifswalder Straße 5
33106 Paderborn, GERMANY

Fon: +49 5251 1659 - 0
E-Mail: mail@freund.eu

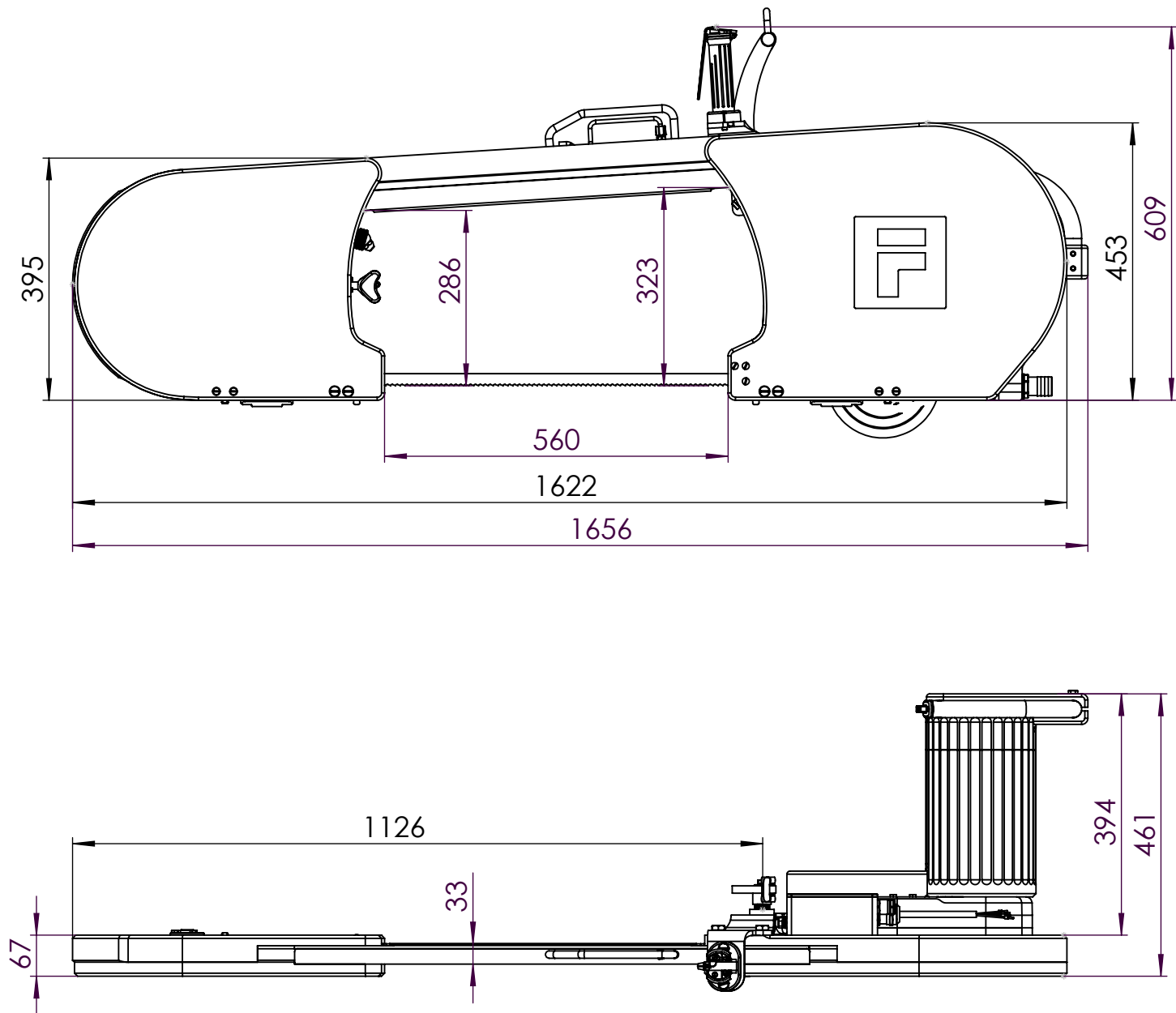
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TIN-016107

WBS56-18

1/1



TIN-016107 000

FREUND Maschinenfabrik GmbH & Co. KG

Greifswalder Straße 5
33106 Paderborn, GERMANY

Fon: +49 5251 1659 - 0
E-Mail: mail@freund.eu

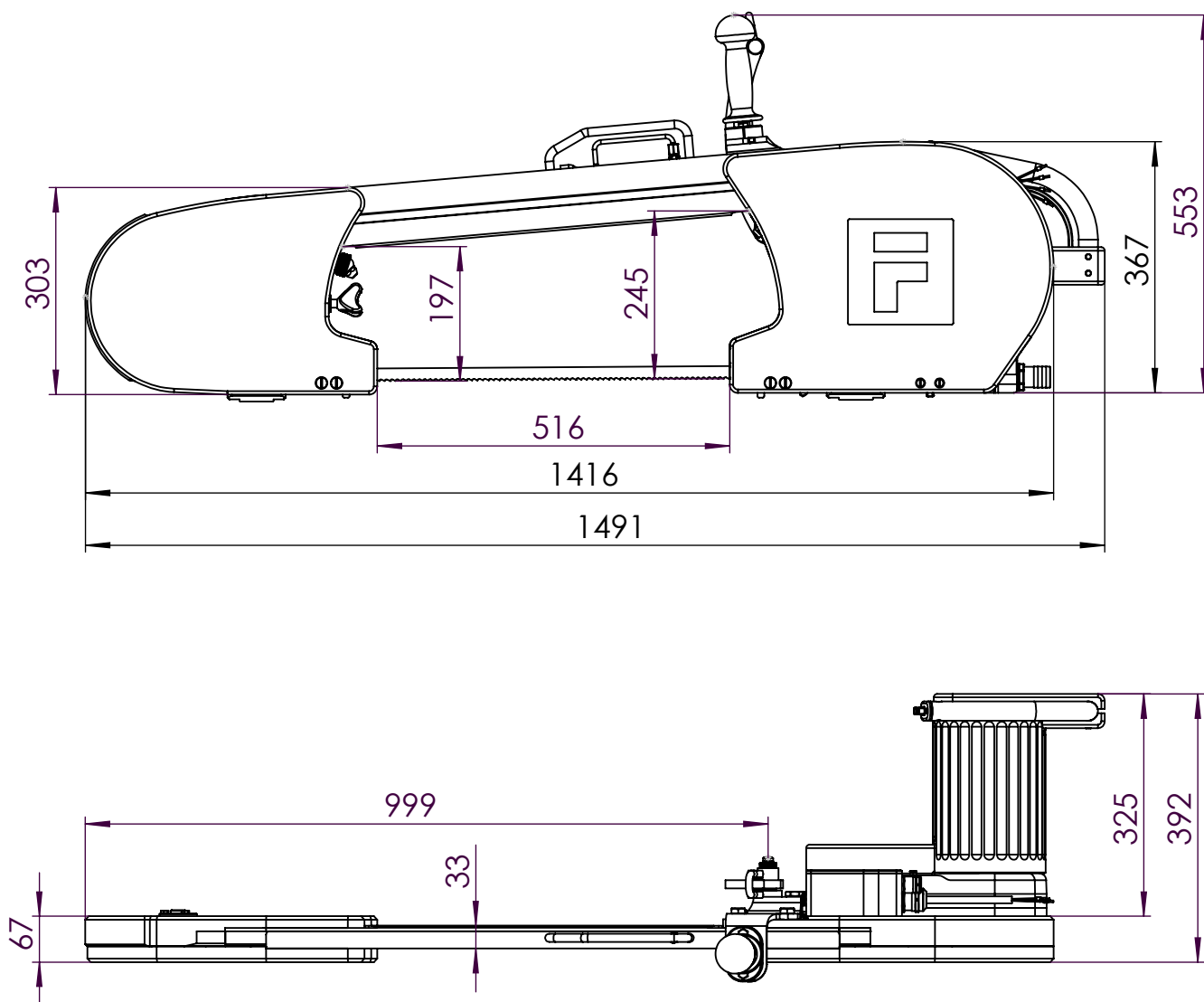
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TIN-016108

WBS51-08nc

1/1



TIN-016108 000

FREUND Maschinenfabrik GmbH & Co. KG

Greifswalder Straße 5
33106 Paderborn, GERMANY

Fon: +49 5251 1659 - 0
E-Mail: mail@freund.eu

www.freund-germany.com



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
WBS	

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	

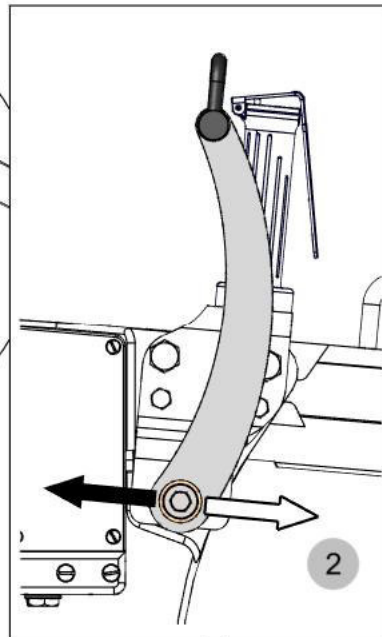
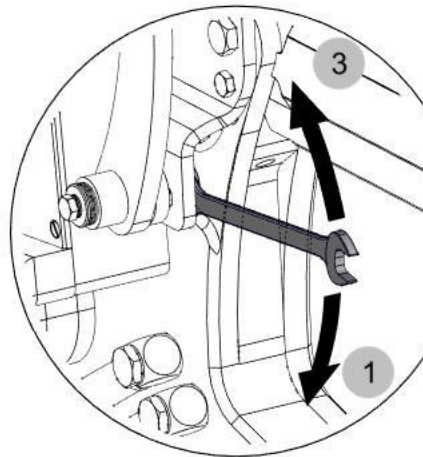
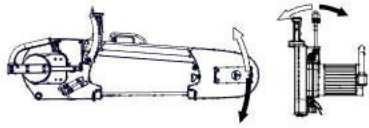
Schmierfett / Grease OKS 479 (100-013-039)

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

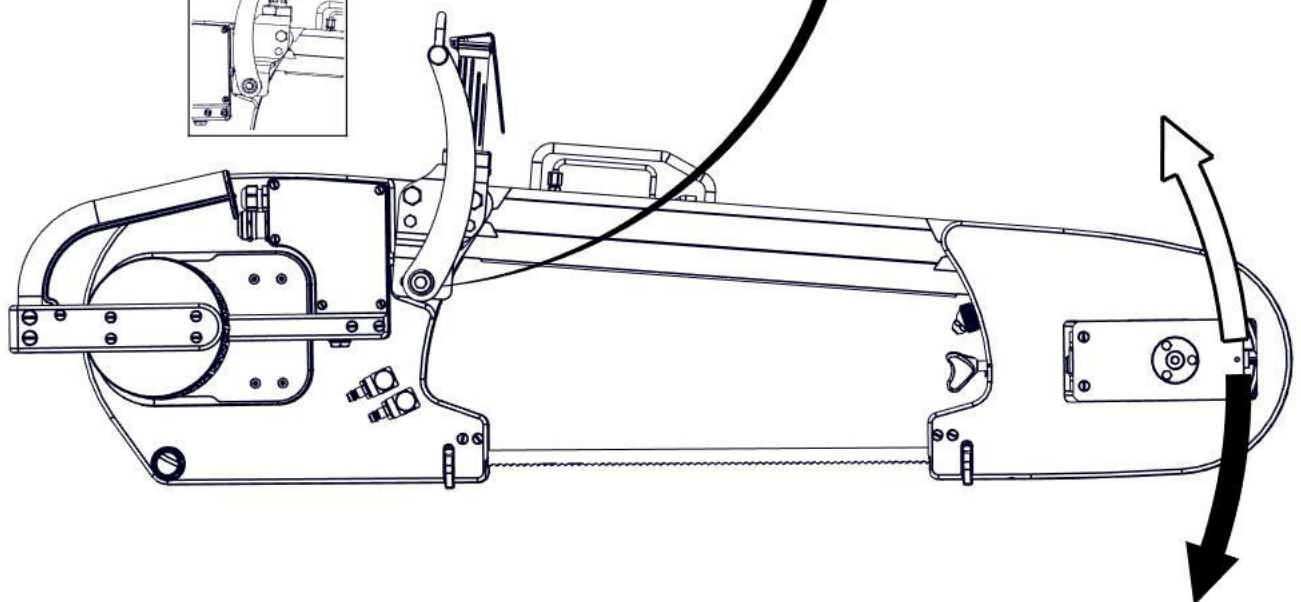
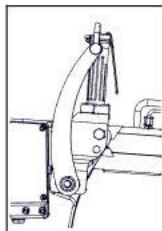


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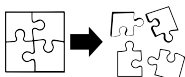


WBS56-18

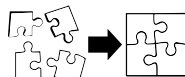


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Erklärung der Symbole siehe Betriebsanleitung Kap.1 / *Explanations of symbols see operating manual chp. 1*



Demontage
Disassembly



Montage
Assembly



Betriebsanleitung beachten
*Pay attention to operating
manual*



Montageanleitung
Assembly instructions

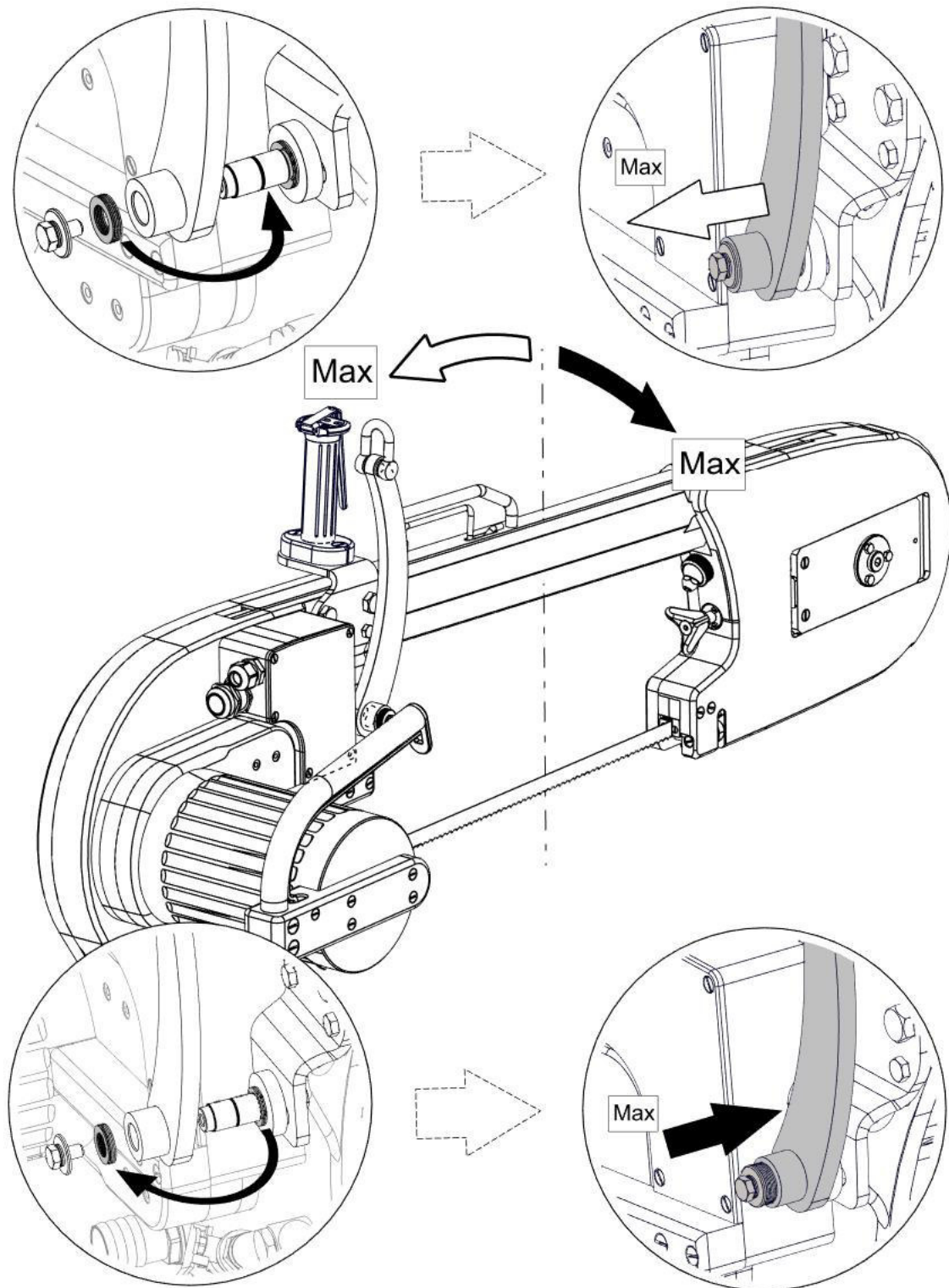


Werkzeugsatz
Toolkit



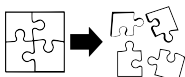
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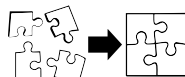


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Erklärung der Symbole siehe Betriebsanleitung Kap.1 / *Explanations of symbols see operating manual chp. 1*



Demontage
Disassembly



Montage
Assembly



Betriebsanleitung beachten
Pay attention to operating manual



Montageanleitung
Assembly instructions



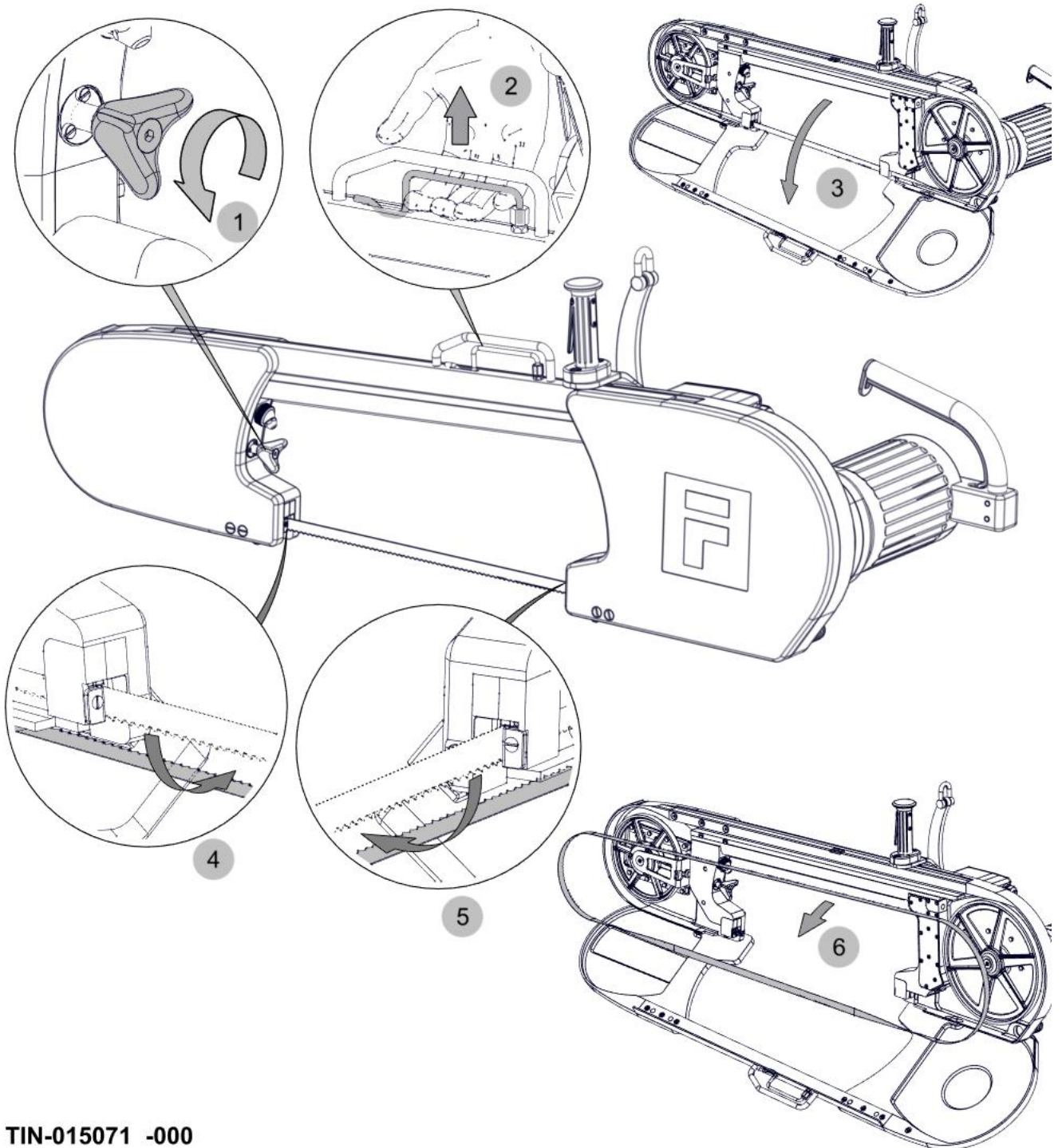
Werkzeugsatz
Toolkit

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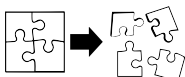
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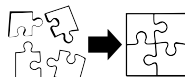


TIN-015071 -000

Erklärung der Symbole siehe Betriebsanleitung Kap.1 / *Explanations of symbols see operating manual chp. 1*



Demontage
Disassembly



Montage
Assembly



Betriebsanleitung beachten
Pay attention to operating manual



Montageanleitung
Assembly instructions



Werkzeugsatz
Toolkit

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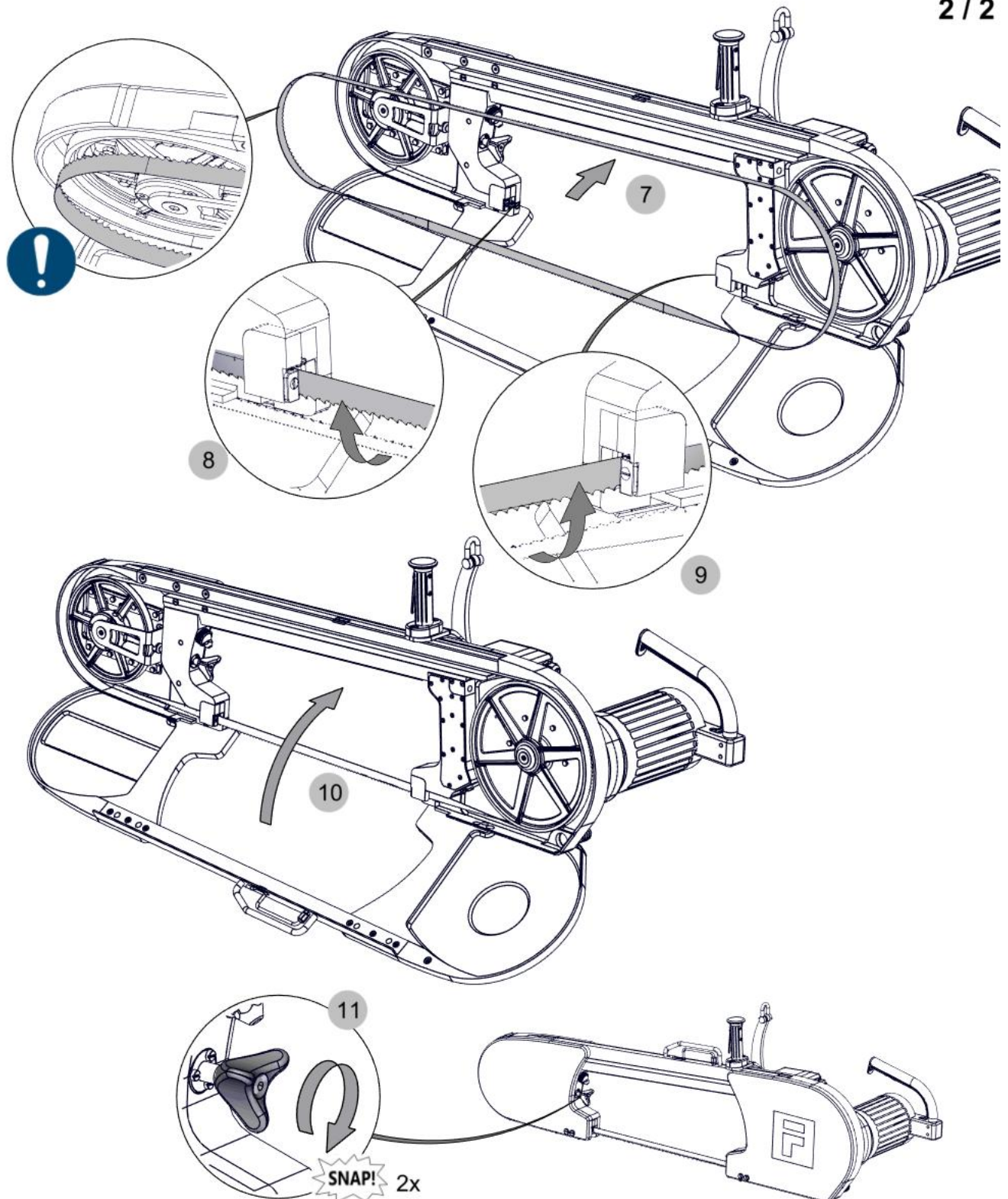


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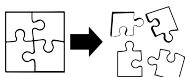


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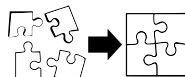


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Erklärung der Symbole siehe Betriebsanleitung Kap.1 / *Explanations of symbols see operating manual chp. 1*



Demontage
Disassembly



Montage
Assembly



Betriebsanleitung beachten
Pay attention to operating manual



Montageanleitung
Assembly instructions

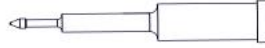


Werkzeugsatz
Toolkit

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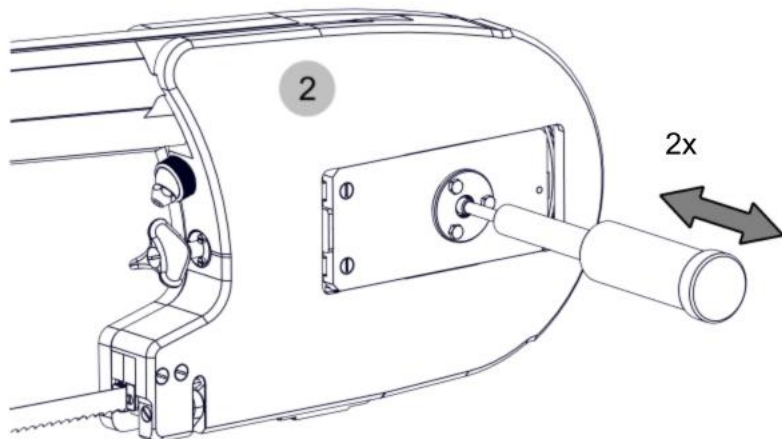
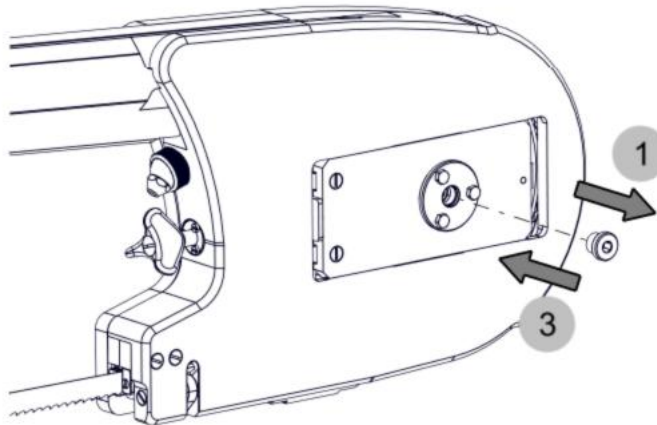
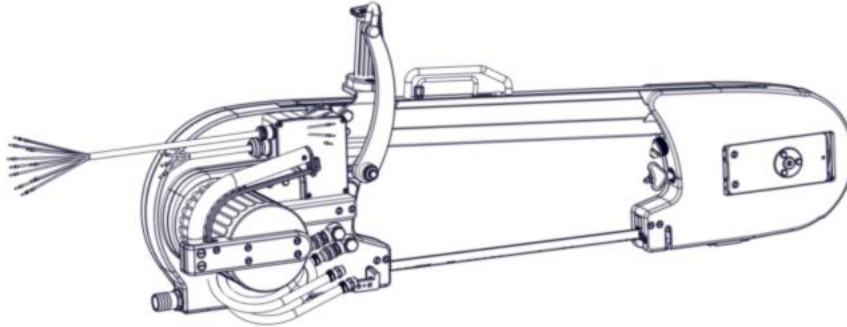


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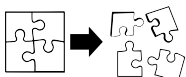
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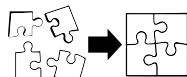


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Erklärung der Symbole siehe Betriebsanleitung Kap.1 / *Explanations of symbols see operating manual chp. 1*



Demontage
Disassembly



Montage
Assembly



Betriebsanleitung beachten
*Pay attention to operating
manual*



Montageanleitung
Assembly instructions



Werkzeugsatz
Toolkit

EU-Declaration of Conformity

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

Manufacturer	FREUND Maschinenfabrik GmbH & Co. KG Schulze-Delitzsch-Str. 38 DE-33100 Paderborn
--------------	--

Documentation Authorised Representative	FREUND Maschinenfabrik GmbH & Co. KG Schulze-Delitzsch-Str. 38 DE-33100 Paderborn
---	--

Hereby we declare that the machine,

Type **WBS51-08 , WBS56-18**

Serial number

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 Safety
-----------------------	--------------------

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	

Declaration of Incomplete Machinery



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

Manufacturer	FREUND Maschinenfabrik GmbH & Co. KG Schulze-Delitzsch-Str. 38 33100 Paderborn, GERMANY
--------------	--

Documentation Authorised Representative	FREUND Maschinenfabrik GmbH & Co. KG Schulze-Delitzsch-Str. 38 33100 Paderborn, GERMANY
---	--

We, the manufacturer of the partly completed machine, hereby declare that the machine,

Type/Function **WBS51-08nc**

- that the following essential health and safety requirements according to Annex I of the above-mentioned Directive have been applied and complied with:
- the special documents according to Annex VII B have been prepared.
- The competent authority shall be provided with the aforementioned specific technical documentation in electronic form, if applicable.
- The above-mentioned special documents can be requested from the above-mentioned Document Authorised Representative.

The partly completed machinery must not be put into service until it has been established that the machinery into which the partly completed machinery is to be incorporated complies with the provisions of the Machinery Directive 2006/42/EC.

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

(EU) 1935/2004	Food safety
-----------------------	--------------------

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

DIN EN ISO 12100:200-03	DIN EN ISO 13732-3:2008
DIN EN 60204-1:2018	DIN EN 12984:2011-02
DIN EN 13861:2012-01	DIN EN 60529:2014-04
DIN EN 60745-2-20:2010-02	

Material Declaration of Conformity

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:

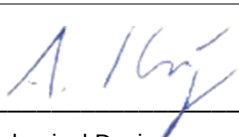
- Regulation (EC) No. 1935/2004**
 We hereby declare that the product (machine type) listed below conforms to the requirements of Regulation (EC) No. 1935/2004, which states that materials and articles intended to come into contact with food must be designed and manufactured in such a way that, under 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.
- (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.
- (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 WBS51, WBS56**

Machine parts	Material designation	Comment
Band saw blades	Tool stell	
Machine housing/Motor housing/Cover	Aluminum	
Guide blocks/Water blocks	Stainless steel	
Drive wheels/Driven wheels	Stainless steel	
Guide elements	Carbide	
Connecting elements	Stainless steel	
Sealing elements	Elastomer	

Paderborn, 15.10.2025


 Head of Mechanical Design