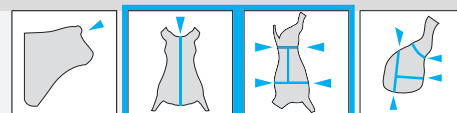


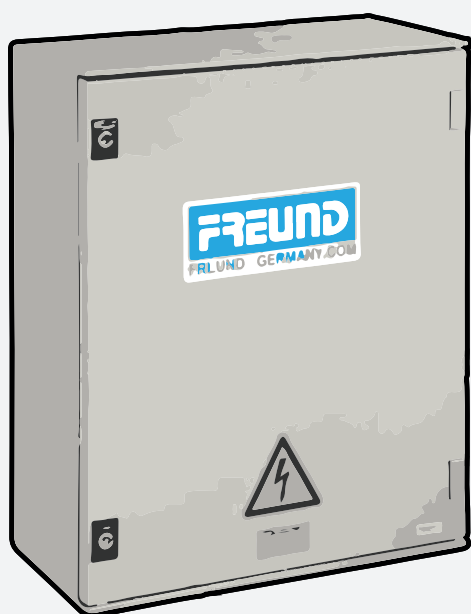
# OPERATING MANUAL TRANSFORMERS

Translation of original manual



## TRANSFORMERS

- TR3
- TR5
- TR7
- TR7-SB-M24





## 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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## 1 About this Manual

The operating manual also refers to the transformer as the “machine”.

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, notes and information

- to install the machine safely and properly.
- to operate the machine safely.
- to rectify simple faults yourself.
- for maintenance and cleaning.

Before you start operating the machine, read this entire operating manual thoroughly and carefully. In particular, follow 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 repair 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 the event of inconsistency or conflict between the English and the German version, the German version shall prevail.

Exclusion of  
liability

We assume no liability and warranty:

- on spare parts.
- if damage 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
- using spare parts or parts which have not been approved by FREUND Maschinenfabrik GmbH & Co. KG
- changing functions or materials 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 these 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 Symbols and layout elements

#### 1.4.1 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



## 1.4.2 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 suspended load**

Danger to the body from falling loads or machines.

### 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:

- during the changing of sharp or cutting tools,
- during cleaning,
- while touching hot surfaces.



#### **Wear safety spectacles**

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

- during operation,
- while the machine is cleaned.



#### **Wear safety shoes or rubber boots**

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

- during operation,
- while the machine is cleaned.



#### **Wear a protective apron**

protects the body against humidity, blood and other fluids.



### **Comply with the operating manual**

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



### **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 plate 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

**The order of the work steps is marked with numbers in the grey field.**



### **Lubrication**

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



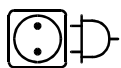
### **Glue**

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



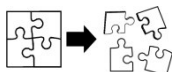
### **Cleaning**

Instruction for an additional cleaning step.

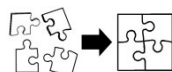


### **Power plug**

symbolises the connection of the machine to the power network.



### **Disassembly of the machine or component**



### **Assembly of the machine or component**

symbolises the assembly of the machine after prior disassembly, carry out work steps in the reverse order.

## 2 For your Safety

This chapter describes the safety measures and safety devices. It serves for your orientation regarding safety questions about the use of the machine.

Safety instructions are intended to provide occupational safety and prevent accidents. Observe all the safety instructions provided here and at the beginning of each chapter.

Be sure to read the following chapter on safety and the safety instructions contained within carefully before commissioning and using the machine.

### 2.1 Warning notes

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. It relates to all following actions of the chapter or life phase.

The precautions described must be observed to avoid the danger.

Structure of a warning note



#### Signal word!

#### Type and source of the imminent danger.

Possible consequences of the danger.

➤ Measures to avoid the danger.

Signal word	Meaning
DANGER	indicates an imminently hazardous situation which, if not avoided, will result in danger to life or death.
WARNING	indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.
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 machine or environment.

## 2.2 Site operator's responsibilities

In accordance with the rules and regulations of the German DGUV Regel 110-008, the site operator may only allow insured persons who are over 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 information. 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.

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

Ensure eye and ear protection is worn at all times when operating the machine.

**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 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.

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

**Qualified personnel** Qualified personnel are defined as skilled employees who, due to their vocational training, have the knowledge and experience required in their field of work.

Assembly, maintenance and repair work as well as troubleshooting may only be carried out by qualified personnel.

Qualified personnel must be familiar with the operating manual and the applicable OHS and accident prevention regulations.

**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.

**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 your employer or his authorized representative of any changes to the machine which may affect your safety.

**Emergency procedures** In case of an accident provide first aid and call a doctor and emergency medical services.

Notify your employer or his authorized 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 in accordance with EN60204-1

All our electrical machinery and equipment is tested for electrical safety prior to commissioning and following modification or repair in our factory by an electrically skilled person in accordance with the electrical engineering rules as per DIN VDE 0701-0702 / EN60204-1. The inspection interval for machinery and equipment that is used in slaughtering and cutting plants is every 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 dangers involved which cannot be eliminated by design measures. These include:

- danger to life from live machine parts
- risk of injury from negligent handling of personal safety equipment while operating the machine, during maintenance and repair work and during cleaning and disinfection

It should also be noted that, despite all precautionary measures, residual risks may remain which are not evident.

You can minimise these residual risks by observing the safety instructions given at the beginning of the individual chapters and observing the instructions in the entire operating manual.

## 2.7 Intended use

FREUND-transformers produce the SELV circuit safety extra low voltage 42 V, which is required in slaughter rooms. Use

- TR3 for FREUND-machines with motor 03 and motor 13.
- TR5 for FREUND-machines with motor 06 and the FREUND-splitting saws SK40-08L and SK52-08L.
- TR7 for FREUND-splitter band saws and FREUND-machines with motor 08.
- TR7-SB-M24 for FREUND splitter band saw SB46-24.

Each transformer may only operate to a maximum ambient temperature up to 40 °C.

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

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

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

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

### 3 Technical Description

The Transformers TR3, TR5, TR7 and TR7-SB-M24 generate secondary side the required circuit safety extra low voltage (VLV) 42 V for machine which are used in slaughter rooms.

- Features
- Completely assembled and wired
  - TR3-SG33 KS with additional cabling
  - Safe to operate and low maintenance
  - Complete ready for connection

#### 3.1 Dimension

The diagram below gives you an overview of the outer dimensions of the cabinet. All dimensions are given in mm.

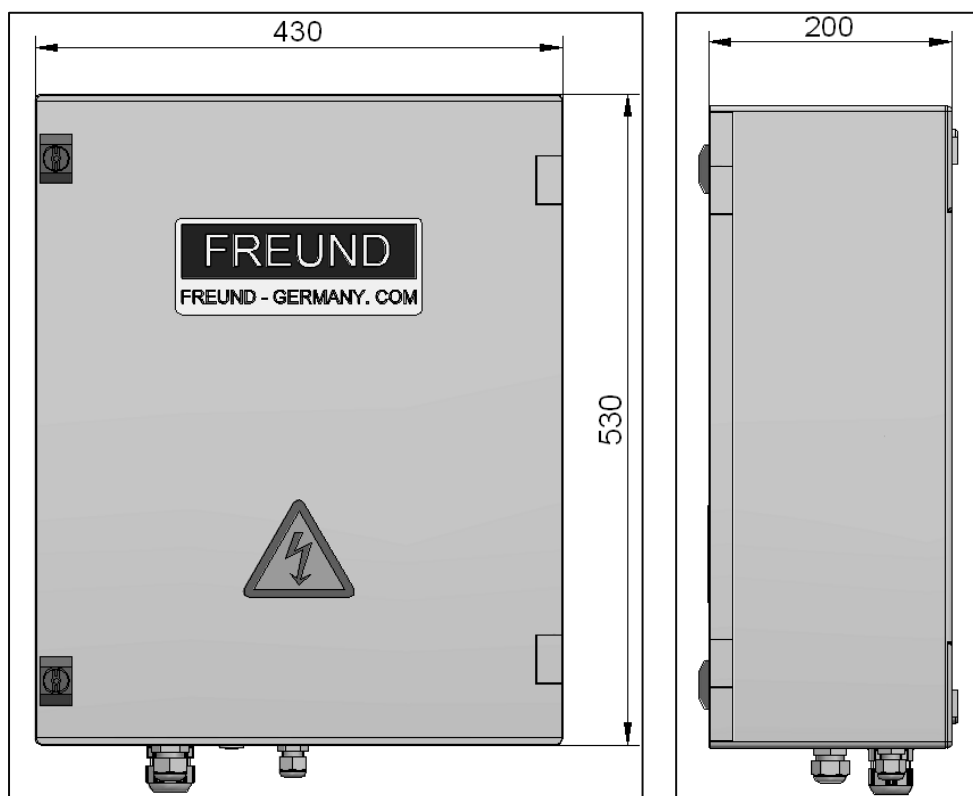


Fig. 3-1 – Fig. 3-2 Dimensions



## 3.2 Technical data

### 3.2.1 TR3

	TR3 360-440/42V	TR3 180-240/42V	TR3 440-500/42V
Dimensions [mm]	430 x 530 x 250	430 x 530 x 250	430 x 530 x 250
Weight [kg]	35	35	35
Primary voltage [V]	3x 360/380/400/420	3x 180/200/220/240	3x 440/460/480/500
Primary current [A]	3x 4.1/3.9/3.7/3.5	3x 8.1/7.3/6.6/6.1	3x 3.3/3.2/3.0/2.9
Secondary voltage [V]	3x 42	3x 42	3x 42
Secondary current [A]	3x 33	3x 33	3x 33
Power rating [VA]	2400	2400	2400
Current frequency [Hz]	50 .. 60	50 .. 60	50 .. 60
Protection class	IP65	IP65	IP65
Insulation class	B	B	B

### 3.2.2 TR5

	TR5 360-420/42V	TR5 180-240/42V	TR5 440-500/42V
Dimensions [mm]	430 x 530 x 250	430 x 530 x 250	430 x 530 x 250
Weight [kg]	49	49	49
Primary voltage [V]	3x 360/380/400/420	3x 180/200/220/240	3x 440/460/480/500
Primary current [A]	3x 5.1/4.9/4.6/4.4	3x 10.1/9.1/8.2/7.6	3x 4.1/4.0/3.8/3.6
Secondary voltage [V]	3x 42	3x 42	3x 42
Secondary current [A]	3x 41.2	3x 41.2	3x 41.2
Power rating [VA]	3000	3000	3000
Current frequency [Hz]	50 .. 60	50 .. 60	50 .. 60
Protection class	IP 65	IP 65	IP 65
Insulation class	B	B	B

### 3.2.3 TR7 / TR7-SB-M24

	TR7 360-420/42V	TR7 180-240/42V	TR7 440-500/42V
Dimensions [mm]	430 x 530 x 250	430 x 530 x 250	430 x 530 x 250
Weight [kg]	56	56	56
Primary voltage [V]	3x 360/380/400/420	3x 180/200/220/240	3x 440/460/480/500
Primary current [A]	3x 8.0/7.6/7.2/6.9	3x 16.2/15.4/14.6/13.9/13.3	3x 6.3/6.1/5.8
Secondary voltage [V]	3x 42	3x 42	3x 42
Secondary current [A]	3x 66	3x 66	3x 66
Power rating [VA]	4800	4800	4800
Current frequency [Hz]	50 .. 60	50 .. 60	50 .. 60
Protection class	IP 65	IP 65	IP 65
Insulation class	T40/B	T40/B	T40/B

### 3.3 Rating plate

The rating plate is attached on the cabinet. The diagram below is an example of the rating plate:


①	 <a href="http://www.freund-germany.com">www.freund-germany.com</a> DE 33100 Paderborn, Schulze-Del.-Str. 38
②	Transformator <b>TR5-SG43</b>
③	Prim.Spannung: 3x361/380/400/420 v Sek.Spannung: 3 x 42V Prim.Strom: 3x5,1/4,9/4,6/4,4 A Sek.Strom: 41,2 A Leistung: 3000 VA      Frequenz: 50..60Hz Bauwoche: 26/2012      PPA: 26251
④	

Fig. 3-3 Rating plate example

Element	Explanation
1	Company address
2	Machine type and designation
3	Performance data: Rated voltage/phases [V] Rated power [W] Frequency [Hz] Rated current [A] Duty type Speed [rpm] Protection class Displacement power factor [cos φ]
4	Year of manufacture of the machine and production order number

## 4 Transport and Storage

The machine has already undergone a trial run in our factory and has been thoroughly checked before shipping. This check ensures that the machine corresponds to the data specified and works correctly.

Despite all the care taken the machine can be damaged in transit.

### 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.
- Secure the danger zone against unauthorized access.

### 4.2 Personal protective equipment



### 4.3 Transporting 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 17.
- 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.

## 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.

- Switch off the electric power to the machine.
- Secure the machine against being switched on accidentally.
- Check disconnected components to ensure that they are de-energized.
- Use only fuses with the specified amperage.



#### **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.

### 5.2 Personal protective equipment



### 5.3 Mounting the transformer

The transformer can be operated in any position you choose.

We recommend mounting the transformer above the electrical machine, in the direct vicinity. Do not extend the power supply cable on the electrical machine, since this could result in power losses.

### 5.3.1 Wall mounting set

Mount the transformer using our optional wall mounting set. You can order the wall mounting set (Part-no. 100-022-069) from our sales staff. Please refer to the company information at the imprint for address and telephone numbers.

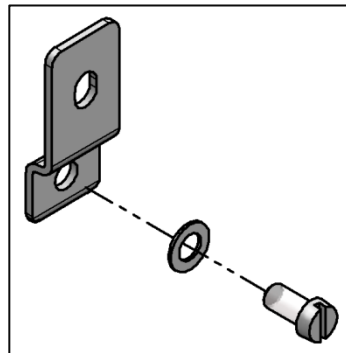


Fig. 5-1 Wall mounting set

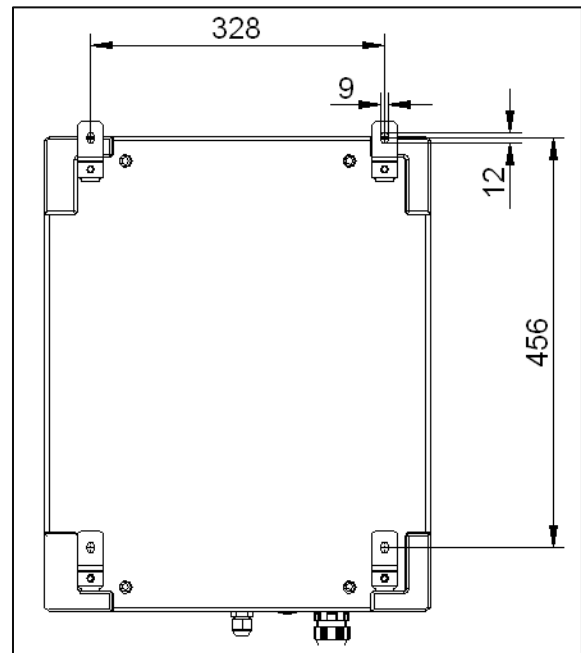


Fig. 5-2 Drill pattern

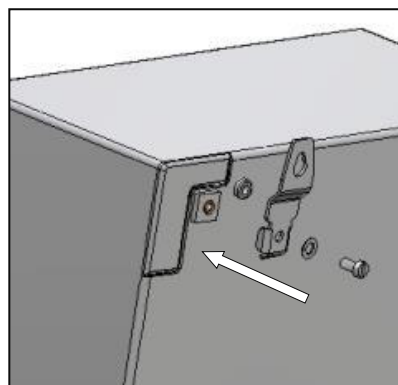


Fig. 5-3

1. Attach the wall mounting set on the back of the switch cabinet.
2. Attach the transformer on the wall with four 8 mm screws.  
The spacing of the mounting holes is shown in Fig. 5-2.

### 5.3.2 Mounting holes

Alternatively, you can attach the transformer using the four existing holes on the back.

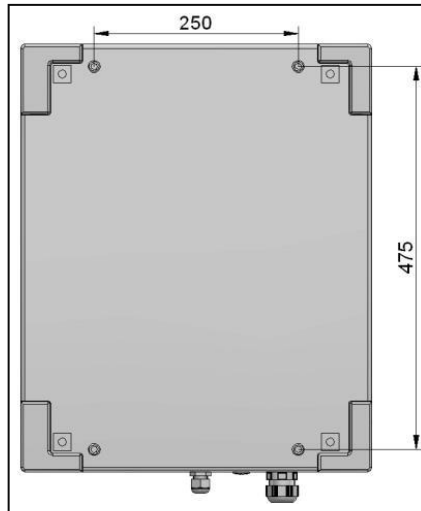


Fig. 5-4 Spacing of mounting holes

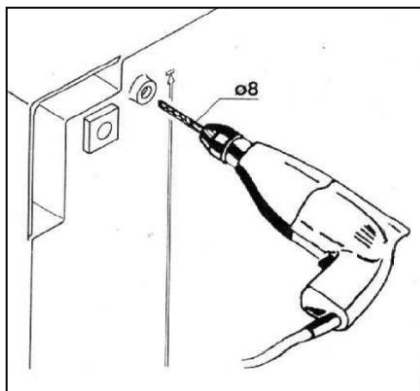


Fig. 5-5 Mounting hole in cabinet

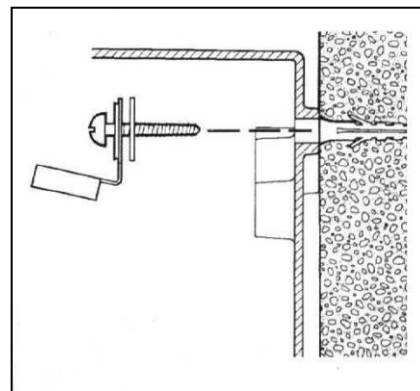


Fig. 5-6 Scheme for wall mounting

- Attach the transformer on the wall with four 8 mm screws.  
The spacing of the mounting holes is shown in Fig. 5-4.

## 5.4 Machine connections

### 5.4.1 TR3 / TR5 / TR7

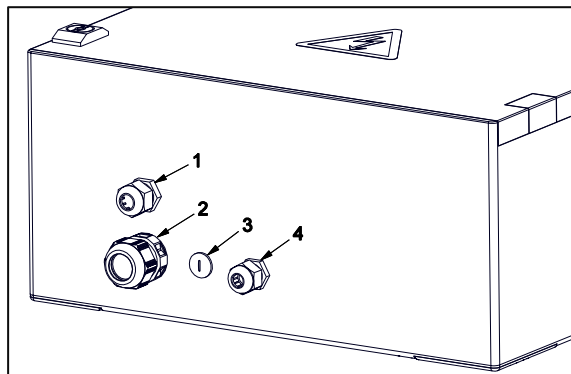


Fig. 5-7 Connections on the bottom of cabinet

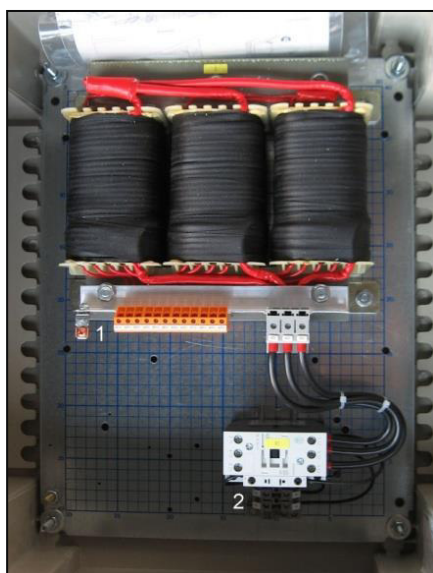


Fig. 5-8 Connections inside TR3 and TR5

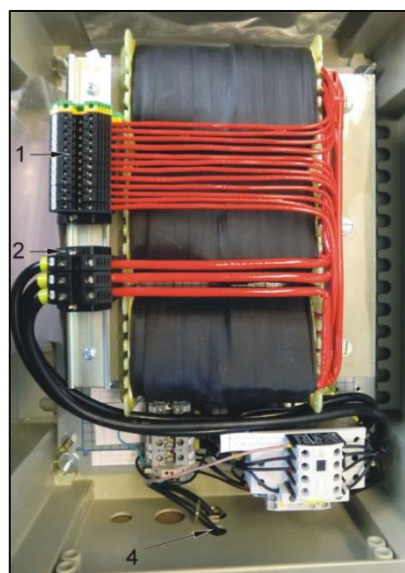


Fig. 5-9 Connections inside TR7

	Connection
1	Power supply
2	Machine
3	Optional connection
4	Control for cleaning and disinfection, water supply (only TR7)

### 5.4.2 TR7-SB-M24

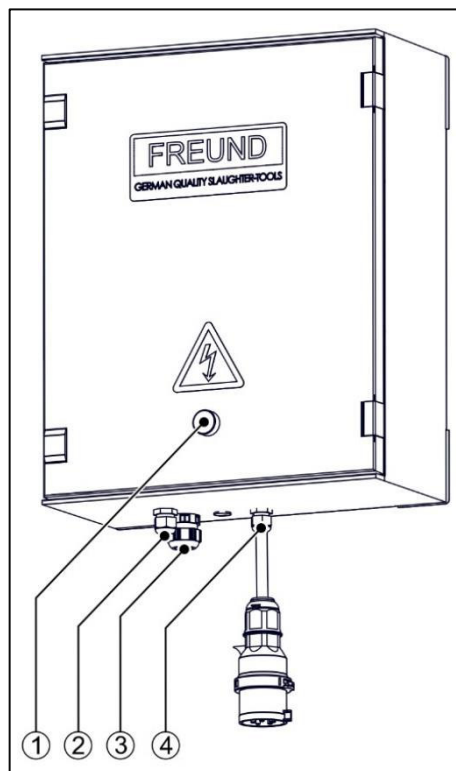


Abb. 5-10 Connections outside TR7-SB-M24

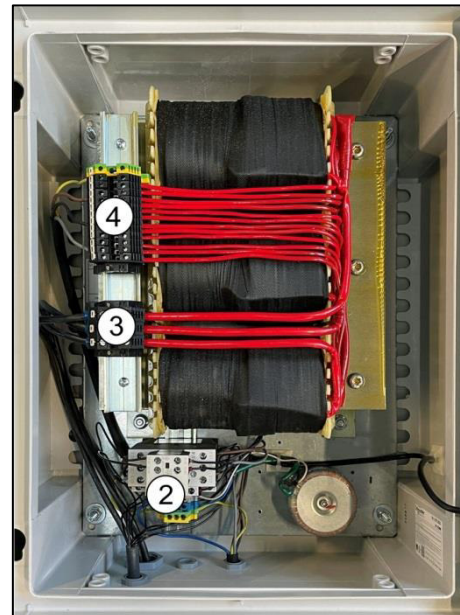


Abb. 5-11 Connections inside TR7-SB-M24

	Connection
1	Signal lamp: Supply voltage applied.
2	Connection: Control cable to the control unit (sleep mode).
3	Connection: power cable 42 V, (cable length: 3 m) Transformer <> control unit <> splitter band saw.
4	Connection: on-site power supply

## 5.5 Connecting the machine



### **DANGER!**

#### **Live machine parts.**

Danger to life.

- Before starting work, disconnect the machine from the power supply.
- Maintenance works to live components may only be performed by trained electricians.



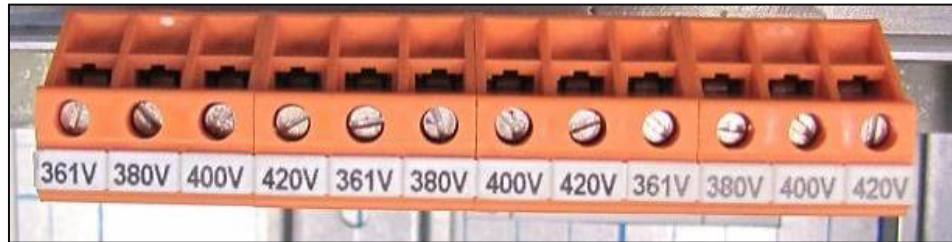


Fig. 5-12 Additional inputs

The machine must be connected by a trained electrician in accordance with the regulations of VDE and the local electric utility company.

- Connect the transformer and the corresponding electrical machine as shown in the wiring diagram (→ Appendix B *Wiring diagrams*).  
The power pack has an additional input in case the local power supply is other than of the transformer.

TR	Additional input
360-420/42V	361V, 380V 400V and 420V (Fig. 5-12)
180-240/42V	180V, 200V, 220V and 240V
440-500/42V	440V, 460V 480V and 500V

- Pay attention to the numbers on the terminal strips.  
The numbers on the terminal strips correspond to the numbers in the wiring diagram.
- Do not extend the power supply cable on the electrical machine.  
FREUND-circular- and reciprocating saws = 6 m  
FREUND-splitter band saws = 8 m
- Start up the electrical machine briefly and check the rotational direction of the motor.  
If necessary, reverse the contacts to change the direction of rotation.

## 5.6 Transformer TR3-SG33-KS

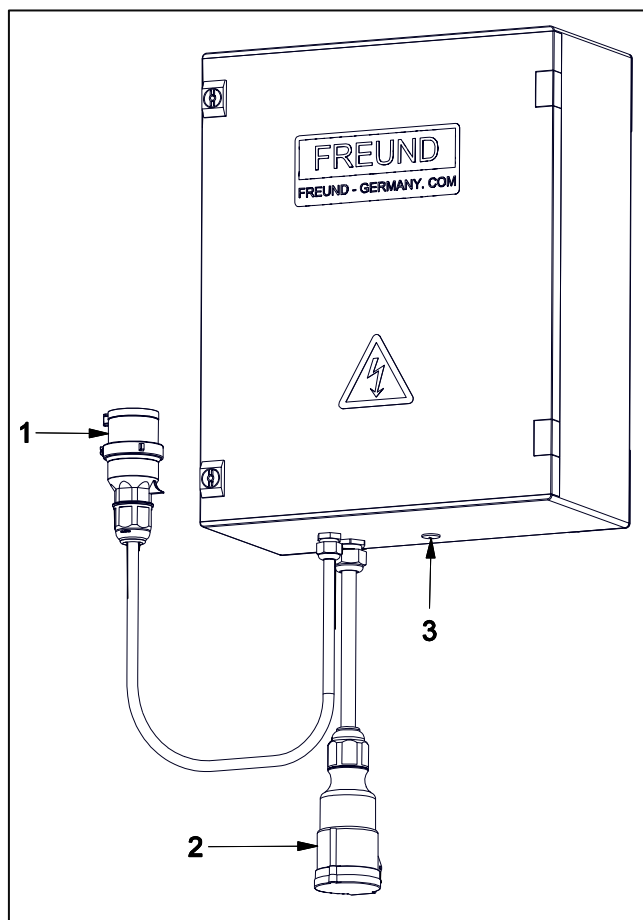


Fig. 5-13 TR3-SG33-KS

	Connection
1	Power supply
2	Corresponding machine
3	Optional connection

The Transformer TR3-SG33-KS is supplied ready for connection with the corresponding cables and connectors.

- Connect the Transformer to the power supply (1) and to the corresponding machine (2) (Fig. 5-13).

## 6 Cleaning, Maintenance and Troubleshooting

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

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

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 in the imprint for the address and telephone numbers.

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

### 6.1 Safety information



#### **DANGER!**

##### **Live machine parts.**

Danger to life.

- Switch off the electric power to the machine.
- Disconnect the corresponding machine from transformer.



#### **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.
- Maintenance works to live components may only be performed by approved electricians.

### 6.2 Personal protective equipment



### 6.3 Cleaning



- Do not clean the machine with water or a high pressure cleaner. Water is harmful to the electrical components and controls. Using a high-pressure cleaner poses the additional risk of water entering the housing and damaging the electronics.
- Protect the machine from dust, dirt and moisture.

### 6.4 Overview of possible faults

Fault	Possible cause	Remedy
Transformer does not run.	No power supply.	Check that the primary and secondary side are correctly connected.
		Check all cables for completeness and function and the fuse switch on again after assembly.
Connected machine does not run / stops working.	No power supply to the machine.	Check whether the power cable is plugged in.
		Check the power cable for interruptions or damage.
		Check the power cables in the transformer box.
		Check the main fuse.
		Make sure that the machine is designed for three phase current
	Fuse in the transformer is defective.	Replace the fuse.
	Thermal contact in the transformer has tripped.	Switch off the machine and allow it to cool down. Replace the switch, if necessary.
Motor of the connected machine becomes too hot (temperature > 70 °C).	Wrong transformer, insufficient power rating.	Use a suitable transformer recommended by FEUND.
	Transformer is overloaded.	Return the load to the rated load.
	Input voltage too low.	Measure the mains voltage. Select the respective input at the transformer.

## 7 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.

### 7.1 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.

### 7.2 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.

## 8 Appendix

### 8.1 EC-Declaration of Conformity

Sample


  
 GERMAN QUALITY SLAUGHTER-TOOLS

**EG-Konformitätserklärung • EC-Declaration of Conformity •  
Declaración CE de conformidad • Déclaration CE conformité**

im Sinne der EG-Richtlinie Niederspannung 2006/95/EG und der EG-Richtlinie EMV 2004/108/EG  
*content according to Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC*  
 contenido según Directiva de Baja Tensión 2006/95/CE y Directiva de EMC 2004/108/CE  
*contenu conforme à la Directive Basse Tension 2006/95/CE et la Directive CEM 2004/108/CE*

Hersteller • <i>Manufacturer</i> • Constructor • <i>Constructeur</i>	<b>FREUND Maschinenfabrik GmbH &amp; Co. KG</b> <b>Schulze-Delitzsch-Str. 38</b> <b>D-33100 Paderborn</b> <b>Germany</b>
Dokumentationsbevollmächtigter <i>Documentation manager</i> Responsable de la documentation <i>Mandataire de la documentation</i>	Claudia Voß

Hiermit erklären wir, dass das elektrische Betriebsmittel • *We hereby declare that the electrical equipment* •  
 Por la presente declaramos que el equipo eléctrico • *Nous déclarons par les présentes que le matériel électrique*


Typ • *Model* • *Modelo* • *Type* |

mit allen einschlägigen Bestimmungen der EG-Richtlinien 2006/95/EG und 2004/108/EG übereinstimmt.  
*fulfils all relevant provisions of EC Directive 2006/95/EC and 2004/108/EC.*  
 concuerdo con todas las disposiciones de la Directiva 2006/95/CE y 2004/108/CE.  
*satisfait à la ensemble des dispositions pertinentes de la Directive 2006/95/CE et 2004/108/CE.*

Folgende harmonisierte Normen (oder Teile dieser Normen) wurden angewendet:  
*The following harmonised standards (or parts thereof) were applied:*  
 Se aplicaron las siguientes normas armonizadas (o partes de estas normas):  
*Les norms harmonisées suivantes (ou parties de ces normes) ont été utilisées:*

DIN EN ISO 12100-1/-2/-3, DIN EN ISO 13732-1, EN 60204-1  
 EN 60529, EN 61558-1, DIN EN 61558-2-2, EN 55022,  
 DIN EN 61000-6-2/-6-3/-6-4, EN 55014-1, EN 55014-2

Wird dieses Produkt in eine Anlage integriert oder mit anderen Komponenten (z.B. Steuerungen) ergänzt und betrieben, so ist der Hersteller oder Betreiber der Gesamtanlage für die Einhaltung der EG-Richtlinie EMV 2004/108/EG verantwortlich.  
*If the product is integrated in a system or combined with other components (e.g. controllers), the system manufacturer is responsible for compliance with EC Directive EMC 2004/108/EC for the complete system.*  
 Si este producto se integra en otros sistemas o combinado con otros componentes (p.e. maniobras), es responsable el fabricante o usuario del conjunto de cumplir con la Normativa-CE 2004/108/EG.  
*Si le produit est intégré à un système ou combiné avec d'autres composants (par exemple, les contrôleurs), le fabricant du système est responsable de la conformité, suivant la directive européenne EMC 2004/108/CE pour le système complet.*

Name und Unterschrift <i>Name and Signature</i> Nombre y firma <i>Nom et signature</i>	 Robert Freund Geschäftsführer • <i>Managing Director</i> • <i>Director gerente</i> • <i>Directeur</i>	Paderborn,
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