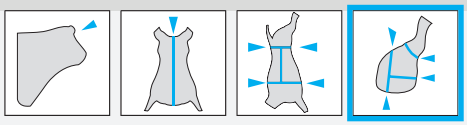
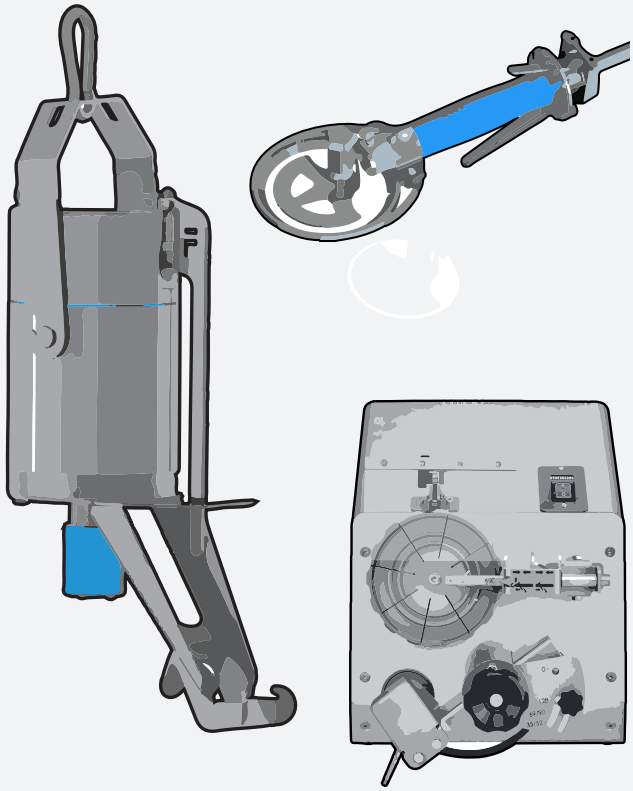
FREUND
GERMAN QUALITY SLAUGHTER-TOOLS

OPERATING MANUAL TRIMMER_evo3

OPERATING MANUAL

Translation of original manual





ELECTRIC

- Trimmer 35_evo3
- Trimmer 52_evo3
- Trimmer 69_evo3
- Trimmer 90_evo3
- Trimmer 128_evo3

ELECTRIC MOTOR

- TM-E6000_evo3
- MDL1

TRIMMER SHARPENING MACHINE

- TSM-E1

BA-017-EN_006 10/2025

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.

Contents

1 About this Manual 7
1.1 Target group 7
1.2 Liability and warranty 7
1.3 Storing the operating manual 8
1.4 Installation manuals and technical information 8
1.5 Symbols and layout elements 9
1.5.1 Layout elements 9
1.5.2 Safety signs 9
1.5.3 Symbols 10

2 For your safety 12
2.1 Warnings 12
2.2 Obligations of the operator 13
2.3 Employee responsibilities 14
2.4 Personal protective equipment 14
2.5 Electrical safety in accordance with EN 60204-1 15
2.6 Residual risks 15
2.7 Intended use 16
2.8 Improper use 16

3 Technical description 17
3.1 Electric trimmer 17
3.1.1 Electric trimmer with permanent coupling (is not intended for use within the EEA) 18
3.1.2 Technical data 19
3.1.3 Electric Motor TM-E6000_evo3 20
3.1.4 Electric Motor MDL1 22
3.2 Ring blade selection and application 24
3.3 Equipment 26
3.4 Trimmer sharpening machine TSM-E1 28
3.4.1 Overview of the machine 28
3.4.2 Technical data 28
3.5 Operating materials 29
3.5.1 Lubricants 29
3.6 Scope of delivery 29
3.6.1 Scope of delivery for trimmer 29
3.6.2 Scope of delivery for trimmer sharpening machine 29

4 Transport and storage 30

4.1 Unpacking the machine 30
4.2 Storing the machine 30

5 Installation and Commissioning 31
5.1 Safety information 31
5.2 Personal protective equipment 31
5.3 Electric trimmer 31
5.3.1 Connecting the electric motor 31
5.3.2 Connect drive line with electric trimmer 32
5.3.3 Connecting the drivetrain to electric trimmer with permanent coupling 32
5.4 Mounting the steeling device 32

6 Operation 33
6.1 Safety information 33
6.2 Personal protective equipment 33
6.3 Daily safety inspection 34
6.4 Operating the electric trimmer 34
6.4.1 Motor - Status information 35
6.4.2 Overload protection MDL1 35
6.5 Greasing the trimmer during work (filling the grease cup) 35
6.6 Adjusting depth control 35
6.7 Cleaning and disinfecting trimmers between work steps 35
6.8 Trimmer sharpening machine TSM-E1 36
6.8.1 Clamping the ring blade 36
6.8.2 Changing the clamping disc 36
6.8.3 Aligning the grinding disc 36
6.8.4 Sharpening the ring blade 36

7 Cleaning and Disinfection 37
7.1 Safety information 37
7.2 Personal protective equipment 38
7.3 Cleaning and disinfecting the trimmer 38
7.4 Cleaning the trimmer sharpening machine 40

8 Maintenance and Repair Work 41
8.1 Safety information 41
8.2 Personal protective equipment 42
8.3 Recommended lubricants 42
8.4 Maintenance schedule 42
8.4.1 All trimmer 43
8.4.2 Electric trimmer 43

8.4.3 Trimmer sharpening machine TSM-E1 43
8.5 Sharpening the ring blade....44
8.6 Changing the ring blade....44
8.7 Measuring ring blade clearance....44
8.8 Checking the quick release....44
8.9 Changing the ring blade guide / the quick release 44
8.10 Changing the deburrer....44
8.11 Electric trimmer 45
8.11.1 Periodic inspection of electrical equipment 45
8.11.2 Replacing the fuse on electric motor....45
8.11.3 Greasing the flex shaft....46
8.12 Trimmer sharpening machine TSM-E1 46
8.12.1 Replacing the grinding disc....46
8.12.2 Replacing the scraper pins 46
8.12.3 Replacing the drive belt 46
8.12.4 Cleaning the grinding disc....46

9 Troubleshooting....47
9.1 Safety information....47
9.2 Personal protective equipment 48
9.3 Overview of possible faults 48
9.3.1 All trimmers....48
9.3.2 Electric trimmer....48
9.3.3 Trimmer sharpening machine TSM-E1 50

10 Disposal and Recycling 51
10.1 Disassembling and disposing of the machine 51
10.2 Disposing of packaging material 51

1 About this Manual

The Trimmer, motor and trimmer sharpening machine 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 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 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 of substances harmful to health and irritants
The information on the packaging and containers must be observed. Keep separate from food.

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.

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.



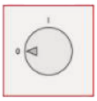
Cleaning

Instruction for an additional cleaning step



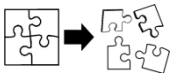
Power plug

Indicates connection of the machine to the power network.

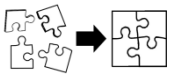


Releasing pressure

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 measures and safety devices. Before setting the machine into operation be sure you have read and understood the following safety information.

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.

Read the following chapter on safety and the safety instructions contained therein carefully before commissioning and using the machine.

2.1 Warnings

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

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

The precautions described must be observed to avoid the danger.

Structure of a warning



Signal word!

Type and source of the imminent danger.

Possible consequences of the danger if the warning is disregarded.

➢ Instructions for averting the danger.

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

2.2 Obligations of the operator

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

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

Risk assessment and protective measures

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

Operating instructions

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

Operating staff

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

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

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

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.

Workplace

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.

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.

2.3 Employee responsibilities

Operating staff

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

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

Qualified personnel

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

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

Competent personnel

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

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

Safety at the workplace

Maintain a stable upright position and keep your balance. Avoid awkward postures.

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

Always wear the personal protective equipment provided.

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

Emergency procedures

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

Notify the operator or his authorised representative of every accident.

Machine safety

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

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 EN 60204-1

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 / EN 60204-1. The inspection interval for machinery and equipment that is used in slaughtering and cutting plants is every six months.

2.6 Residual risks

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

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

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

2.7 Intended use

The electric motors TM-E6000_evo3 and MDL1 are exclusively intended to be electrically operated with a trimmer_evo3.

The trimmer_evo3 with permanent coupling is not intended for use within the European Economic Area.

All FREUND trimmers are intended for

- Meat cutting and meat recovery
- Bone trimming and trimming away fat from various types of meat
- Cutting and filleting fish

The trimmer sharpening machine TSM-E1

- is intended for grinding ring blades made of steel

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 also deemed as improper use of the trimmer:

- the cutting of bones.
- the cutting and sawing of other materials such as wood, plastic or stone.

The following are also deemed as improper use of the trimmer sharpening machine TSM-E1:

- Grinding knives other than steel ring knives
- Operation outdoors
- Operation in explosive environment
- Use as a climbing aid
- Use in continuous operation

3 Technical description

Trimmer_evo3

The Trimmer_evo3's fields of application range from clean removal of spinal cord and carcass fat to meat recovery from bones, controlled fat trimming during cutting up to deboning chicken thighs and cutting razor-thin slices of salmon or other fish.

Trimmer_evo3 is available in a variety of shapes and sizes. They are powered electrically.

The FREUND Trimmer_evo3 can be used with one hand and are suitable for left-handed and right-handed operators.

Trimmer sharpening machine TSM-E1

The trimmer sharpening machine TSM-E1 is a machine for sharpening ring blades. The ring blade needs to be removed from the blade housing of the trimmer to this end.

3.1 Electric trimmer

The electric trimmer_evo3 is driven by an electric motor (TM-E6000_evo3 or MDL1) via a drivetrain. This is available in lengths of 1.5 m and 2.1 m.

The electric trimmer_evo3 allows the operator to start and stop the ring blade via single-hand control.

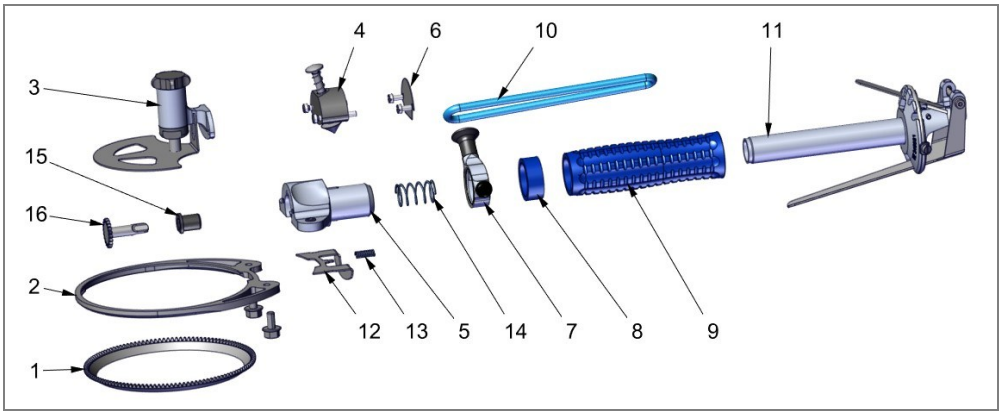


Fig. 3-1 Electric trimmer 128_evo3 (example)

1	Ring blade
2	Blade housing
3	Depth control*
4	Steeling device
5	Frame
6	Cover
7	Grease ring*
8	Distance ring
9	Handle sleeve*
10	Hand strap

11	Single-hand control cp
12	Quick fastener
13	Spring(s)
14	Spring(s)
15	Slide bearing
16	Pinion gear

* Equipment

3.1.1 Electric trimmer with permanent coupling (is not intended for use within the EEA)

The electric trimmer_evo3 is driven by an electric motor (TM-E6000_evo3 or MDL1) via a drivetrain. This is available in lengths of 1.5 m and 2.1 m.

The trimmer_evo3 with permanent coupling is switched on and off using the button on the electric drive motor.

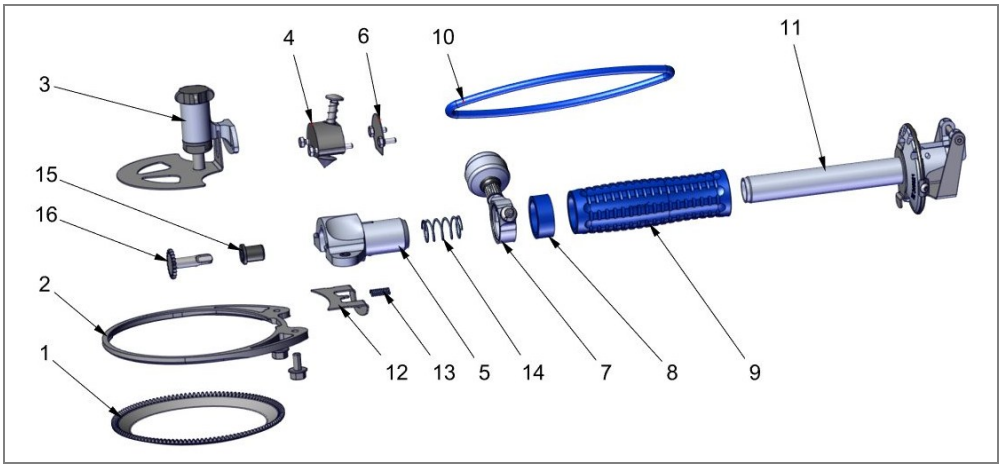


Fig. 3-2 Electric trimmer 128_evo3 (example)

1	Ring blade
2	Blade housing
3	Depth control*
4	Steeling device
5	Frame
6	Cover
7	Grease ring*
8	Distance ring
9	Handle sleeve*
10	Hand strap
11	Permanent coupling

12	Quick fastener
13	Spring(s)
14	Spring(s)
15	Slide bearing
16	Pinion gear

* Equipment

3.1.2 Technical data

Technical data

	Trimmer_evo3				
	35	52	69	90	128
Weight [kg]	0,44	0,45	0,47	0,61	0,66
Length [mm]	252	268	286	304	342
Vibration [m/s²]	≤ 2.5				

Serial number

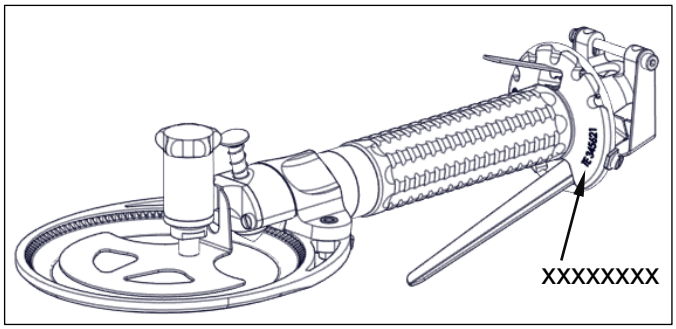


Fig. 3-3 8-digit serial number on the trimmer

3.1.3 Electric Motor TM-E6000_evo3

Technical data

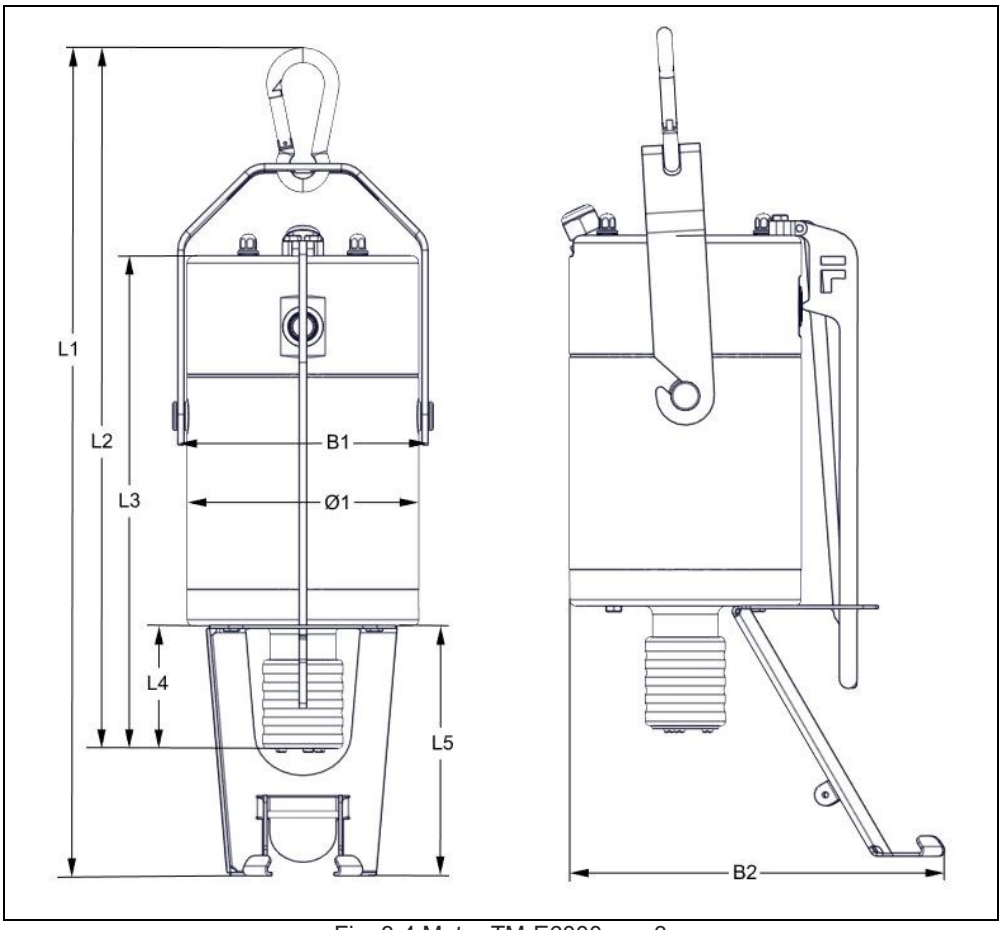


Fig. 3-4 Motor TM-E6000_evo3

Technical data			
Length [mm]	L1	575	
	L2	485	
	L3	341	
	L4	85	
	L5	173	
Width [mm]	B1	173	
	B2	256	
	Ø1	160	
Weight [kg]		16	
Motor rating [kW]		0,55	
Speed [rpm]		4500 (preset), 2500 – 6000*	
Current frequency [Hz]		50/60	
Voltage [V]		230	115

EN

Technical data		
Rated current [A]	2,5	5,0
Fuse [A]	16	
Duty type	S6	
Protection class	IP 65	

Serial number

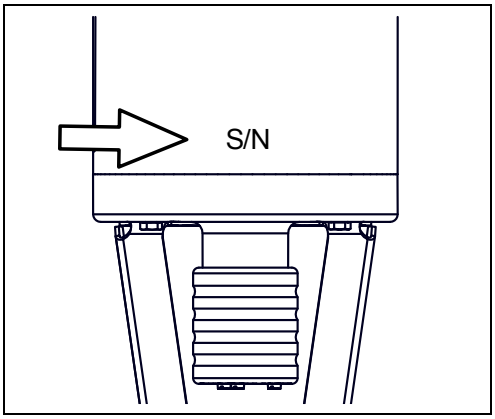


Abb. 3-5 Serial number

3.1.4 Electric Motor MDL1

Technical Data

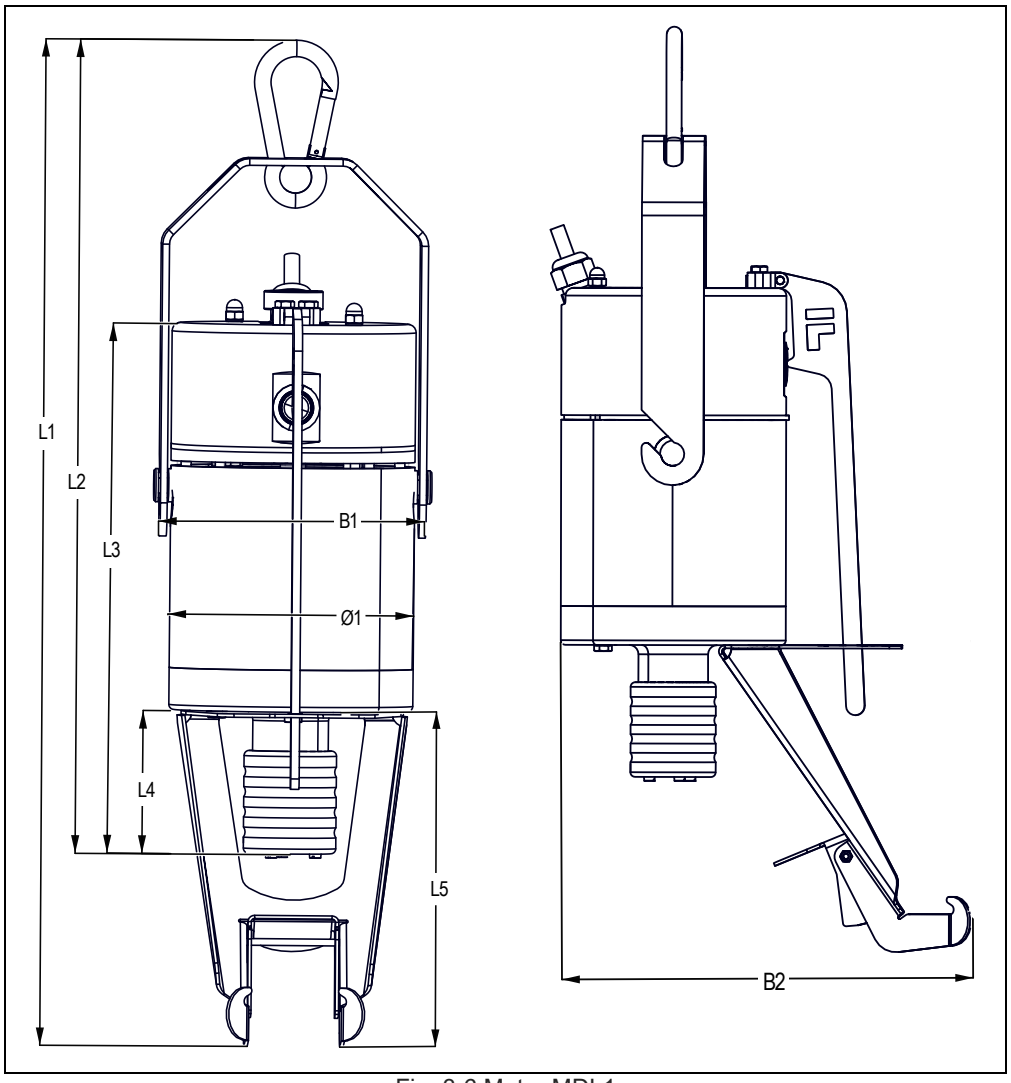


Fig. 3-6 Motor MDL1

Technical Data		
Length [mm]	L1	596
	L2	485
	L3	315
	L4	85
	L5	200
Width [mm]	B1	158
	B2	220
	Ø1	145
Weight [kg]		12
Motor rating [kW]		0,37

Technical Data	
Speed [U/min]	3000, 4500 (preset), 6000*
Current frequency [Hz]	50 / 60
Voltage [V]	230
Rated current [A]	1,8
Fuse [A]	10
Duty type	S6
Protection class	IP 65

Serial numberr

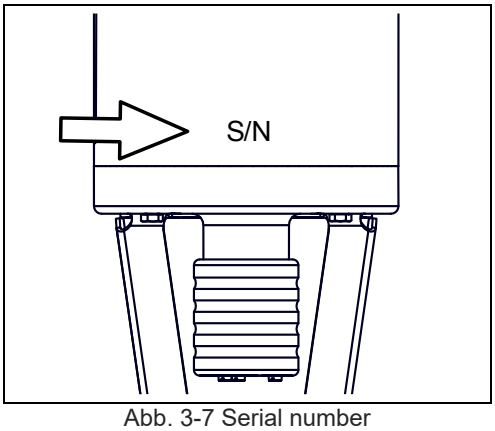
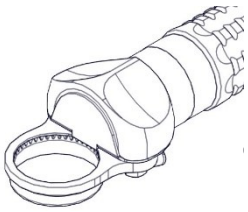
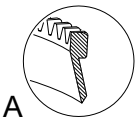
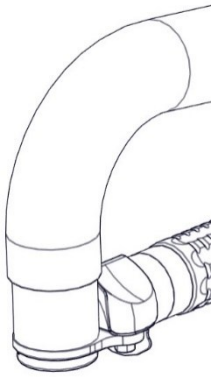
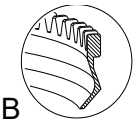
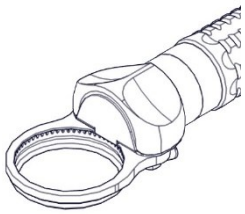
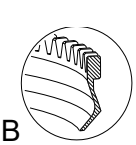
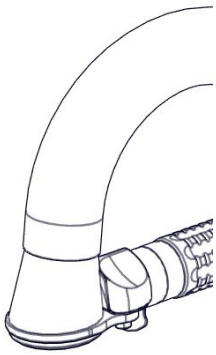
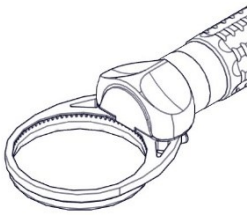
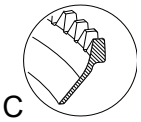
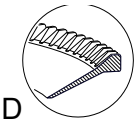


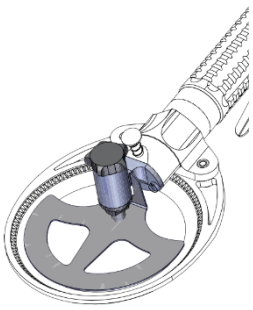
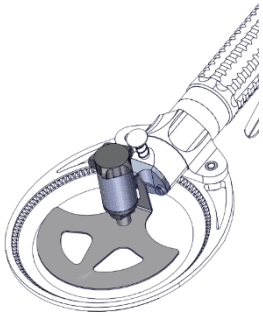
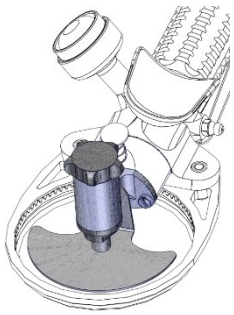
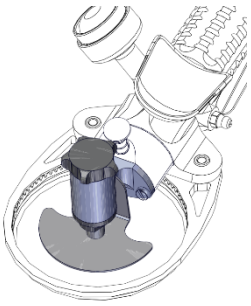
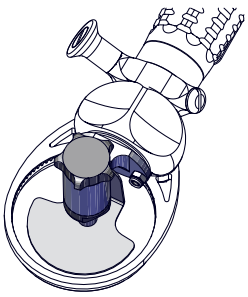
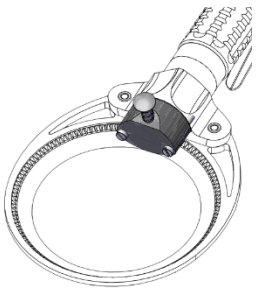
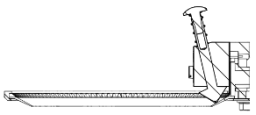
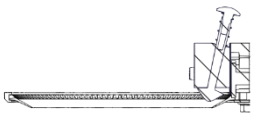
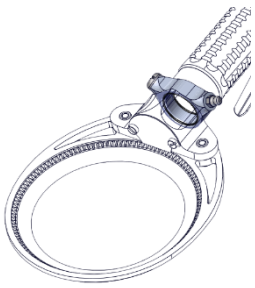
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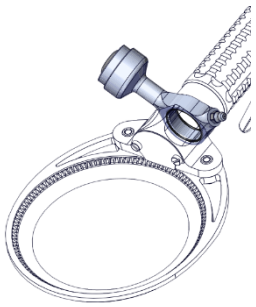
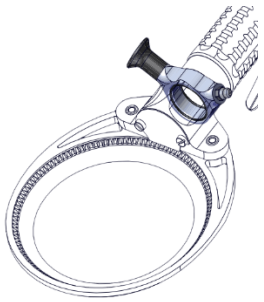
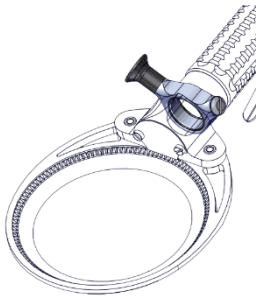
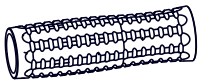
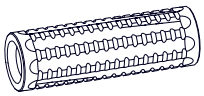
3.2 Ring blade selection and application

Size		Shape	Application
35		 A	Clean bones Cut away hepatic veins Remove eyes and blood vessels Debone chicken thighs
		 B	Ribs from belly
	Variant with suction 	 A	Trim/vacuum suction tonsils in the head Trim/vacuum suction spinal hole Clean/vacuum suction carcasses Trim/vacuum suction cover fat Trim/vacuum suction auricles/eyes Clean/vacuum bones
		 B	Trim/vacuum suction chest fat Trim/vacuum suction spinal cord Trim/vacuum suction blood vessels Trim/vacuum suction leaf lard
		SCR16 	Remove spinal cord from pigs
		SCR19 	Remove spinal cord from cattle
52		 A	Clean bones Cut out chicken thighs Clean heads Cut out puncture wound
		 B	Hot-fat trimming of hindquarters Clean belly Clean chicken breast Remove turkey veins

Size		Shape	Application
	Variant with suction 	 A	Trim/vacuum suction spinal hole Trim/vacuum suction blood vessels
		 B	Trim/vacuum suction cover fat Trim/vacuum suction heart fat Trim/vacuum suction spinal cord Trim/vacuum suction blood vessels Trim/vacuum suction leaf lard Remove tendons in the shoulder
69		 A	Cut out flat bones Remove fillets from pigs
		 B	Simple fat trimming Trim fat off lamb and ham Meat recovery
90		 A	Remove fillets from sows
		 B	General and hard fat trimming Trim belly fat off salmon
		 C	Trim fat from cutlets Trim away skin
128		 C 30°  C 45°	Trim fat off warm meat Cut gyros Cut and fillet salmon Trim fat off cutlets, remove skin
		 D	Trim fat off hard and cold meat

3.3 Equipment

	Description		Description
	DCS depth control • Trimmer 128 • Application for thin slices • Cut thin slices of salmon		DCF depth control • Trimmer 128 • Application for thick slices • Controlled fat trimming
	DCS depth control • Trimmer 90 • Application for thin slices • Cut thin slices of salmon		DCF depth control • Trimmer 90 • Application for thick slices • Controlled fat trimming
	DCS depth control • Trimmer 69 • Application for thin slices • Cut thin slices of salmon		
  	Steeling device • Trimmer 90 and 128 For quick and simple deburring during work after sharpening the ring blade • For ring blades B and C • For ring blade D		Grease ring with grease fitting • All sizes • Automation Quick and easy slide bearing lubrication

	Description		Description
	Grease ring with grease cup and grease fitting • All sizes • Automation Quick and easy lubricating of the slide bearings without having to put down the trimmer or interrupt work		Grease ring with hook and grease fitting • All sizes • Hook for hand strap • Automation Quick and easy slide bearing lubrication
	Grease ring with hook • All sizes • Hook for hand strap		
	Handle sleeves EM/ES • Ergogrip • In sizes M and S		Handle sleeves M/S • In sizes M and S

3.4 Trimmer sharpening machine TSM-E1

3.4.1 Overview of the machine

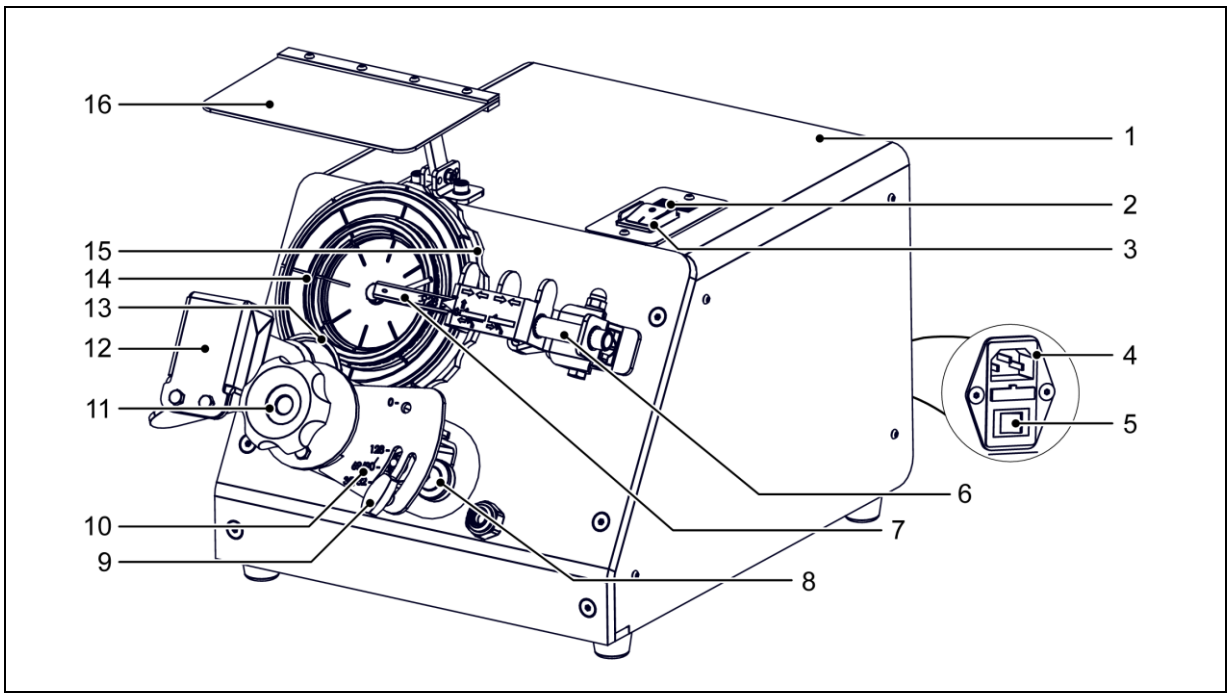


Fig. 3-8 View of TSM E1

No.	Designation	No.	Designation
1	Housing cover	9	Knob
2	Load display	10	Size scale
3	On/off switch	11	Height adjustment
4	Mains connection	12	Grinding disc motor
5	Mains switch	13	Grinding disc
6	Scraper holder	14	Clamping disc
7	Scraper	15	Support disk
8	Swivel locking mechanism	16	Safety disc

3.4.2 Technical data

Dimensions (W/H/D) [mm]:	285 x 297 (455) x 500
Weight (kg):	16
Revolutions/min:	100 / 8,000
Power pack output [W]:	150
Operating voltage [V]:	90–264
Rated current [A]:	1.30 / 0.65
Current frequency:	50 / 60
Noise emission:	≤ 70 dB

3.5 Operating materials

3.5.1 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.

Lubricating grease

The lubricating grease recommended by FREUND is based on highly refined paraffin oil and is tasteless and odourless. It is physiologically safe and is conforming to NSF-H1.

Maintanance oil spray

FREUND-maintanance oil spray contains of resin-free and acid-free medical white mineral oil. It reduces friction and wear, suppresses squeaking noise, protects against corrosion, and dissolves dirt and rust. It is physiologically safe and conforming to NSF-H1.

Hydraulic oil

The hydraulic oil recommended by FREUND is a low-viscosity, highly refined medical white mineral oil. It is physiologically harmless and is certified as per FDA H1.

3.6 Scope of delivery

3.6.1 Scope of delivery for trimmer

- According to your configuration, consisting of motor and trimmer

3.6.2 Scope of delivery for trimmer sharpening machine

- Trimmer sharpening machine
- Mains cable

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 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 51.

- 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.

4.2 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



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 cutting tools.
- ➢ Always wear protective gloves for your own safety.

5.2 Personal protective equipment



5.3 Electric trimmer

5.3.1 Connecting the electric motor

The electric motor is not designed for mobile use and must be permanently installed.

The trimmer motor must be positioned to the right of the operator for right-handed operation and to the left of the operator for left-handed operation.

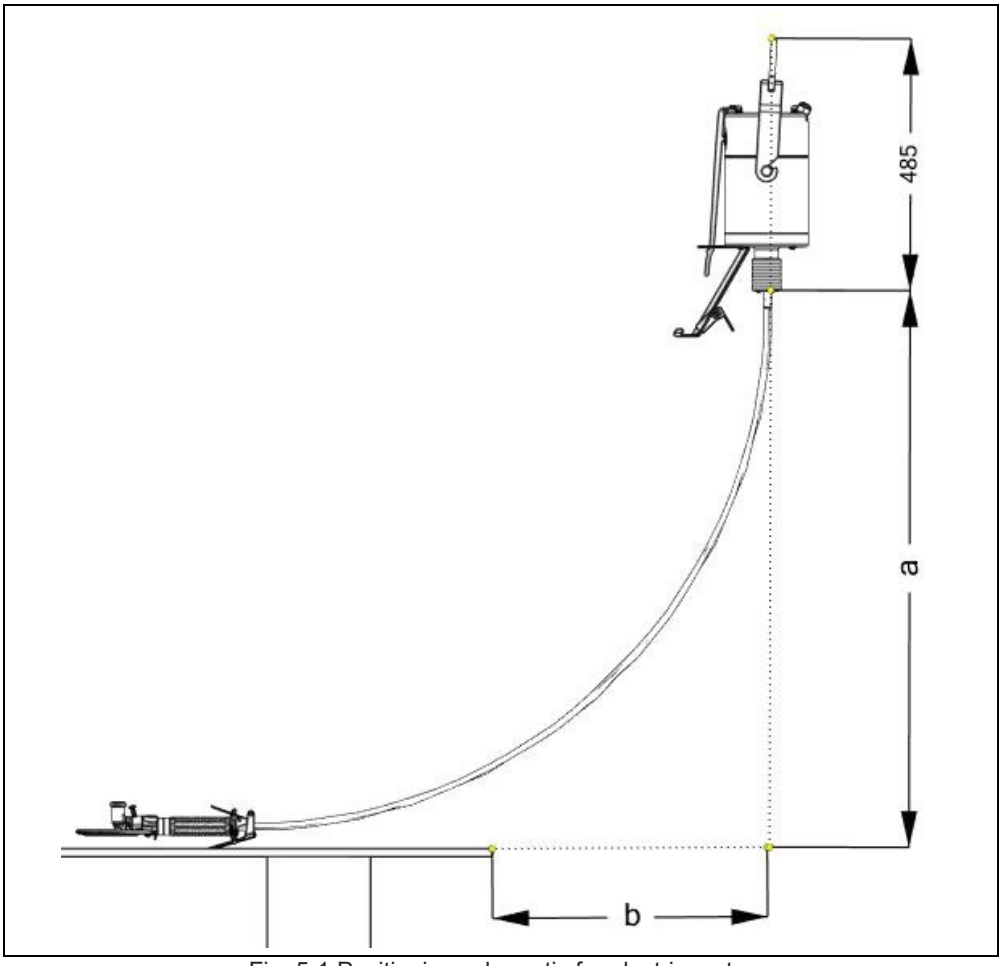


Fig. 5-1 Positioning schematic for electric motor

Length of drive cable	a [mm]	b [mm]
1.5 m	approx. 1,016	approx. 406
2.1 m	approx. 1,516	approx. 1,000

The relevant manual can be found in the appendix under the heading **TIN-013574.**

5.3.2 Connect drive line with electric trimmer

The relevant manual can be found in the appendix under the heading **TIN-014391.**

5.3.3 Connect drive line with electric trimmer with permanent coupling

The relevant manual can be found in the appendix under the heading **TIN-015688.**

5.4 Mounting the steeling device

The relevant manual can be found in the appendix under the heading **TIN-015017.**

6 Operation

The trimmer is suitable for right- and left-handers.

6.1 Safety information



WARNING!

Risk of accident caused by insufficiently qualified personnel.

Danger to Life and most severe injuries are possible.

- The machine may only be operated by instructed and authorized 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.



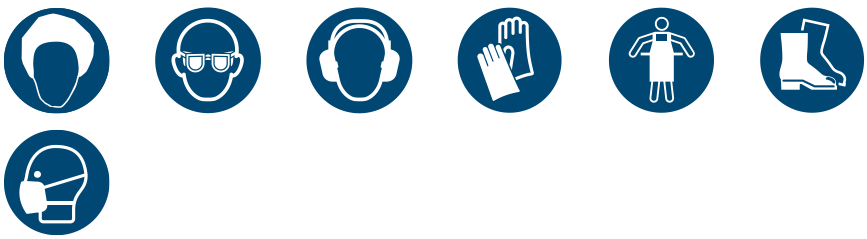
WARNING!

Rotating saw blades and blades.

Risk of being caught and drawn in due to wearing loose clothing, long hair and jewellery.

- Wear only close-fitting clothes.
- Do not wear jewellery while working.
- Protect long hair with a hair net.

6.2 Personal protective equipment



Additionally protect the hand not holding the machine with a stab-proof protective glove with gauntlet. The gauntlet must protect the entire arm.

6.3 Daily safety inspection

All machines

Before starting work, carefully check the machine for flawless and intended operation.

Only use technically sound and functioning machines.

- Never use a machine with defective safety devices, switches or other defective machine parts.
- Have defective safety devices, switches or other machine parts repaired, and notify your employer.

Check

- the machine for signs of visible damage and loose machine parts.
- the fit of moving parts. Ensure they do not block or show signs of damage.

All trimmers

- Check
- the ring blade for wear and damage to the blade.
- the ring blade. It must be held securely in the blade housing.
- the ring blade play. The play between the ring blade and the ring blade guide must not exceed 0.5 mm.
- the ring blade guide for wear and damage.
- the quick-release fastener for wear and damage. It must have a minimum thickness of 0.5 mm in the area that fixes the ring blade.

Electric trimmer

- Check
- the electric motor's connection cable for visible damage.
- the flex shaft and flex shaft casing for kinks and damage.

Trimmer sharpening machine

Check

- all electrical connections and connection lines for external damage.
- the grinding disc for wear and damage.

6.4 Operating the electric trimmer



Do not switch on the motor until you have removed the trimmer from the holder and are holding it securely in your hand.

The Start-Stop system on the trimmer_evo3 allows the operator to start and stop the ring blade via a single-hand control.

The relevant manual can be found in the appendix under the heading **TIN-014100**.

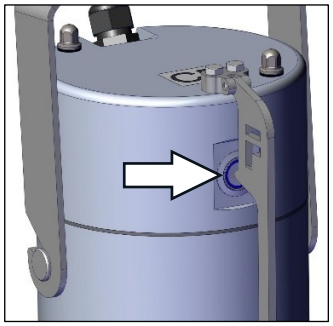
Not intended for use within the EEA

The trimmer_evo3 with permanent coupling is switched on and off using the button on the electric drive motor.

The relevant manual can be found in the appendix under the heading **TIN-015684**.

6.4.1 Motor - Status information

You can see the current status of the motor from the blue ring illumination:



No illumination	Motor is off
Constant illumination	Standby mode
Fixed flashing frequency	Motor is on (normal operation)

6.4.2 Overload protection MDL1

If the motor is overloaded (torque too high), it shuts off automatically for safety reasons.

To be able to restart the motor, it must first be *reset*. To do this, you must press and hold the pushbutton for 10 seconds.

6.5 Greasing the trimmer during work (filling the grease cup)

The relevant manual can be found in the appendix under the heading **TIN-014099.**

6.6 Adjusting depth control

Trimmer_evo3
69, 90, 128

The relevant manual can be found in the appendix under the heading **TIN-013569.**

6.7 Cleaning and disinfecting trimmers between work steps

The trimmer should be cleaned and disinfected after every work step wherever possible.

Disinfect the machine regularly using the FREUND disinfection-basin DES-B02 (Part-No. 913-101-230).

1. Fill the disinfection basin up to top level of the standpipe.

   The heating time depends on the temperature of the fresh water (about 30 min. at 20°C).
2. Submerge the trimmer with rotating ring blade in the disinfection basin.
3. Open the fresh water valve so far that all meat-particles as well as all other contaminations will be washed away by the standpipe.

6.8 Trimmer sharpening machine TSM-E1

6.8.1 Clamping the ring blade

Before you clamp the ring blade in place, make sure that:

- The machine is switched off.
- The grinding disc motor is swivelled down.
- The scraper is folded to the side.
- The safety disc is folded up.
- The correct clamping disc is installed:
  028-EL2-027 for ring blades 128, 90 and 69
  028-EL2-152 for ring blades 35, 52 and 69

The relevant manual can be found in the appendix under the heading **TIN-011739**.

6.8.2 Changing the clamping disc

The relevant manual can be found in the appendix under the heading **TIN-015685.**

6.8.3 Aligning the grinding disc

The relevant manual can be found in the appendix under the heading **TIN-011740**.

6.8.4 Sharpening the ring blade



CAUTION!

The ring blade may jump out of the clamping disc.
Cutting hazard.

➢ Wear cut-proof protective gloves.
➢ Only move the scraper gently against the ring blade.

The relevant manual can be found in the appendix under the heading **TIN-011743**.

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.

- Before starting any installation, cleaning, maintenance and repair work, disconnect the electric drive motor from the power supply.
- If possible, disconnect the trimmer from the electric drive motor.
- Trimmer sharpening machine: Disconnect the machine from the power supply.
- Trimmer sharpening machine: Do not clean the machine with water



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 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.



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 Cleaning and disinfecting the trimmer

- ➢ Only use detergents and disinfectants approved for the food industry.
- ➢ Pay attention to the marking as well as the safety and product data sheets for the detergents and disinfectants used.
- ➢ Store detergents and disinfectants in a separate location or in a special room.

  It is imperative that you prevent direct contact between detergents/disinfectants and food.

Caution!

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 ≤ 6 bar.

- ➢ Always wear the personal protective equipment specified by the detergent/disinfectant manufacturers.
- ➢ Only use cloths, brushes or other devices which are only used for cleaning.

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.

7.4 Cleaning the trimmer sharpening machine



DANGER!

Live machine parts.

Danger to life.

➢ Do not clean the machine with water.

➢ Use only a dry cloth or a brush to clean the trimmer sharpening machine.

EN

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.

German Playlist of the German maintenance videos!

English Playlist of the English maintenance videos!

8.1 Safety information



DANGER!

Live machine parts.

Danger to life.

- Before starting any installation, cleaning, maintenance and repair work, disconnect the electric drive motor from the power supply.
- If possible, disconnect the trimmer from the electric drive motor.
- Trimmer sharpening machine: Disconnect the machine from the power supply.
- Trimmer sharpening machine: Do not clean the machine with water



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 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.

8.2 Personal protective equipment



8.3 Recommended lubricants

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

Information and notes on the lubricants can be found in the appendix under the heading **TIN-100-013.**

For the refilling and topping up of the machine we offer you the following lubricants:

	Retail container	Part-No.
	Grease gun	028-300-119
	1kg box	100-013-058
Service unit	1-l oil bottle	047-004-004

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.

8.4.1 All trimmer

Interval	Maintenance job	→ chapter
During work	Sharpening the ring blade by whetting	
	Filling the grease cup	→ chapter *Greasing the trimmer during work* on page 35
Daily	Visual inspection before starting any work	→ chapter *Daily safety inspection* on page 34
	Sharpening the ring blade	→chapter *Sharpening the ring blade* on page 44
If required	Replacing the ring blade	→ chapter *Changing the ring blade* on page 44

8.4.2 Electric trimmer

Interval	Maintenance job	→ Chapter
Once a week	Clean and grease the flex shaft and flex shaft casing	→ Chapter *Greasing the flex shaft* on page 46.
Motor TM-E6000_evo3:		
Every 6 months	Electrical recurring inspection in accordance with VDE 0701/0702/EN60204-1	→ Chapter *Periodic inspection of* electrical equipment on page 45
As necessary	Replace the fuse	→ Chapter *Replacing the fuse* on page 45

8.4.3 Trimmer sharpening machine TSM-E1

Interval	Maintenance job	→ Chapter
If required	Replace the grinding disc	→ Chapter *Cleaning the grinding di* on page 43
	Replace the scraper pins	→ Chapter *Replacing the scraper pins* on page 46
	Replace the drive belt	→ Chapter *Replacing the drive belt* on page 46
	Cleaning the grinding disc	→ Chapter *Cleaning the* grinding disc on page 46

8.5 Sharpening the ring blade

Sharpen your blades with the trimmer sharpening machine → Chapter *Trimmer sharpening machine TSM-E1* on page 36.

It is essential that you remove the swarf every time the blade is sharpened.

8.6 Changing the ring blade

The relevant installation manual can be found in the spare parts list under the heading **MTA-013568-C**.

8.7 Measuring ring blade clearance

Check the ring blade clearance every time you change the ring blade. The clearance between the ring blade and ring blade guide must not be greater than 0.5 mm.

The relevant manual can be found in the appendix under the heading **TIN-014108**.

If the ring blade play is greater, check the ring blade guide and the quick-release fastener for wear and replace these parts if necessary.

8.8 Checking the quick release

The relevant manual can be found in the appendix under the heading **TIN-014993**.

8.9 Changing the ring blade guide / the quick release

The relevant installation manual can be found in the spare parts list under the heading **MTA-014118-C**.

8.10 Changing the deburrer

Trimmer 90, 128

The relevant installation manual can be found in the spare parts list under the heading **MTA-014824-C**.

8.11 Electric trimmer

8.11.1 Periodic inspection of electrical equipment

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

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

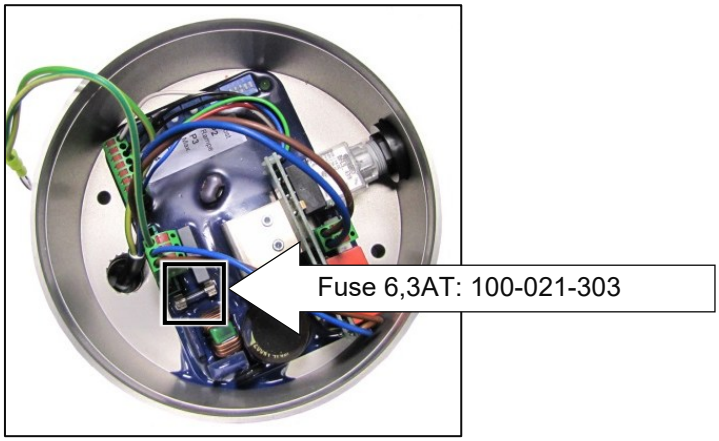
Service package SDL-003-004

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

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

8.11.2 Replacing the fuse on electric motor

TM-E6000_evo3



MDL1

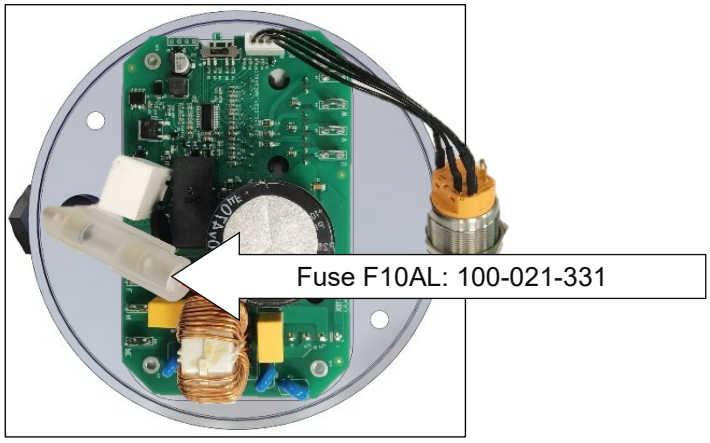


Abb. 8-1 Position of the fuse

Replace the defective fuse only with a fuse of the same amperage.
Do not use higher currents or other tripping characteristics when selecting replacement fuses

8.11.3 Greasing the flex shaft

Check the flex shaft casing and the flex shaft for kinks, cracks and deformation.

When pulling out the flex shaft, make sure not to kink or deform it. Damage to the flex shaft can increase wear.
Grease the flex shaft with food grade grease during installation in the flex shaft casing. As an alternative, we recommend Rivolta's chain oil F.L.88N.

The relevant manual can be found in the appendix under the heading **TIN-014138.**

8.12 Trimmer sharpening machine TSM-E1

8.12.1 Replacing the grinding disc

The relevant installation manual can be found in the spare parts list under the heading **MTA-011765-C**.

8.12.2 Replacing the scraper pins

The relevant installation manual can be found in the spare parts list under the heading **MTA-011766-C**.

8.12.3 Replacing the drive belt

Over time, the drive belt can elongate or harden. Check the drive belt at regular intervals and replace it as soon as the driving force falls or the rotation becomes irregular.

The relevant installation manual can be found in the spare parts list under the heading **MTA-011767-C**.

8.12.4 Cleaning the grinding disc

The relevant manual can be found in the appendix under the heading **TIN-015171.**

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, cleaning, maintenance and repair work, disconnect the electric drive motor from the power supply.
- ➢ If possible, disconnect the trimmer from the electric drive motor.
- ➢ Trimmer sharpening machine: Disconnect the machine from the power supply.
- ➢ Trimmer sharpening machine: Do not clean the machine with water



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 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.

9.2 Personal protective equipment



9.3 Overview of possible faults

9.3.1 All trimmers

Fault	Possible cause	Remedy
Vibrations in the trimmer, not running smoothly	Ring blade exhibits an unbalance.	Replace the ring blade.
	Ring blade/guide is very dirty.	Clean the ring blade or the ring blade guide.
	Ring blade guide and/or quick release are worn.	Replace the ring blade guide and/or quick release.
Ring blade guide gets hot	Too much grease.	Remove the excess grease and clean the ring blade guide.
	Ring blade/guide is very dirty.	Clean the ring blade and the ring blade guide.
Ring blade provides poor cutting results.	Ring blade has not been sharpened correctly.	Sharpen the ring blade.
	Steeling device is being used incorrectly.	Do not use the steeling device to sharpen the ring blade.

9.3.2 Electric trimmer

Fault	Possible cause	Remedy
Trimmer not running/stops during work.	The electric motor is not properly connected.	Check whether the connection cable is plugged in.
		Check the connection cable for interruptions and damage.
		Check the main fuse.
	Cable connections in the motor are loose or defective.	Check the cable connections.
	Fuse in the motor is defective.	Replace the fuse, → chapter *Replacing the* fuse on page 45.
	Flex shaft casing or flex shaft are defective or are not properly connected.	Check the lines.
		Replace the flex shaft and the flex shaft casing as a pair.

Fault	Possible cause	Remedy
Unusual noises coming from the electric motor.	There is increased bearing clearance and/or a bearing is defective.	Check the bearings. If necessary, have the bearing replaced.
	Fastening bolts loose.	Check all screws/nuts to ensure they are tight.
The On/Off switch is illuminated blue although the electric motor is not running.	Interruption to the power supply during operation, e.g. a power outage.	1. Switch off the motor. 2. Wait until the blue light has gone out (takes approximately 5 seconds). 3. Switch the motor back on.
	The On/Off switch was pressed before a connection with the power supply was established.	
Electric motor is running; however there is no power transmission or inadequate power transmission.	Fuse pin has been sheared off.	Send the motor to be repaired as special tools are required.
Increased wear on the trimmer drive cable.	Electric motor is not properly mounted.	Note the dimensions stated in → chapter *Connecting the electric motor* on page 31. Avoid small bends, angles, and kinks in the flex shaft casing.
Increased wear on the trimmer drive cable.	Excessive load on the trimmer.	Sharpen the ring blade.
	Flex shaft casing is defective.	Replace the flex shaft and the flex shaft casing as a pair.
Trimmer rotates on the flex shaft casing if it is released.	Flex shaft is too long or the flex shaft casing is too short.	Replace the flex shaft and/or the flex shaft casing.
Plastic cap melts and/or wears too quickly.	Flex shaft is too long or the flex shaft casing is too short.	Replace the flex shaft and/or the flex shaft casing. Check that the shaft end is in a tolerance range of 20 – 26 mm.
	Pinion gear strikes the cap.	Clean the pinion gear and the slide bearing.

9.3.3 Trimmer sharpening machine TSM-E1

Fault	Possible cause	Remedy
Burr on the cutting edge despite proper scraping	Wrong scraper pin set	Set the correct scraper pin
	Scraper pin notched	Replace the scraper pin → Chapter *Replacing the scraper pins* on page 46
	Spring on scraper holder insufficiently preloaded	Preload the spring tighter
Clamping disc not turning	The drive belt has stretched too much	Replace the drive belt or preload it tighter → Chapter *Replacing the drive belt* on page 46
	The screw in the centre of the clamping disc has not been tightened	Tighten the screw hand-tight
Grinding disc feed not working	The locking ring on the spindle is not seated in the intended groove	Replace the locking ring
Blades are irregular or slightly oval after grinding	The screw for clamping the blade into the clamping disc was over-tightened	Tighten the screw hand-tight only
Blades running unevenly and the blade surfaces are ground unevenly	The blade is not placed correctly on the contact surface	Place the blade evenly on the contact surface
	The support disc is not in contact with the contact surface of the drive shaft	Turn and tighten the support disc in front of the drive shaft

10 Disposal and Recycling

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

More Information

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

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

10.1 Disassembling and disposing of the machine



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

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

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

10.2 Disposing of packaging material



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

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

TIN-100-013

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

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

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

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

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

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

TIN-100-013

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

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

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

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

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

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

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

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

TIN-100-013

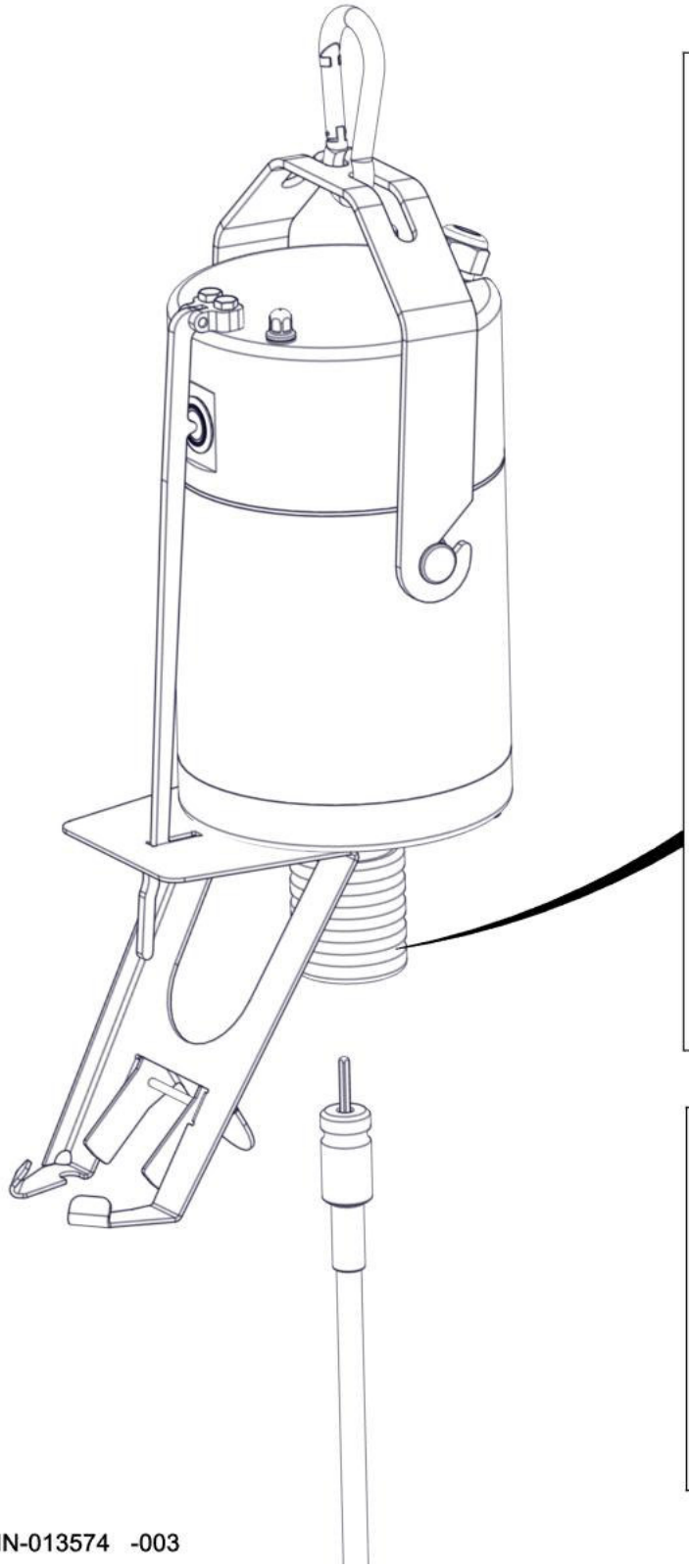
Schmierfett / Grease OKS 475 (100-013-038)

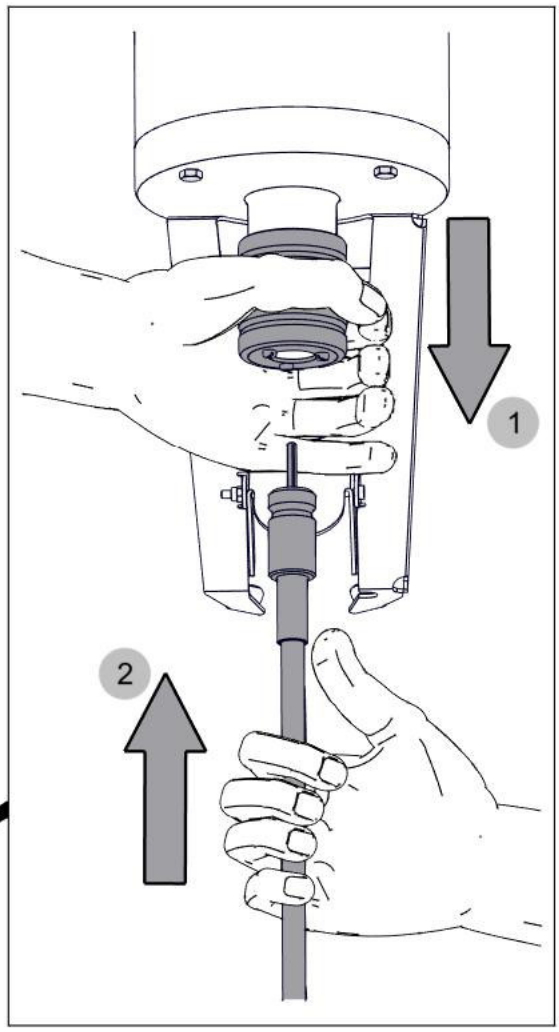
VK Gebinde / Disposal dimensions	Teile Nr. / Item No
0,4 kg Kartusche / Cartridge	100-013-037
0,14 kg Fettpresse ST / Grease Gun ST	151-002-039
0,14 kg Fettpresse EDF, SD11 / Grease Gun (EDF, SD11)	047-004-002
Verwendung / Ability for	Füllmenge / Filling capacity
Getriebe / Gear ST, SST, BBST	0,07 kg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

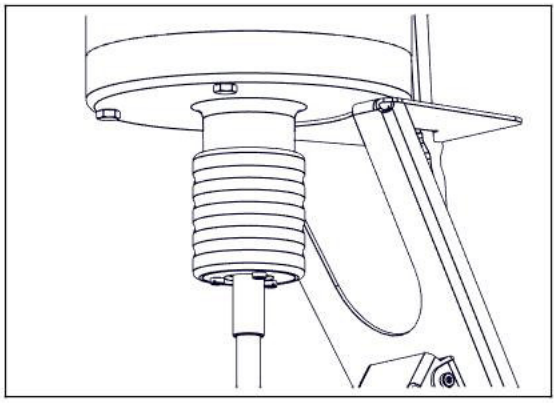
Schmierfett / Grease OKS 479 (100-013-039)

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

TIN-013574







TIN-013574 -003

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

Demontage
Disassembly

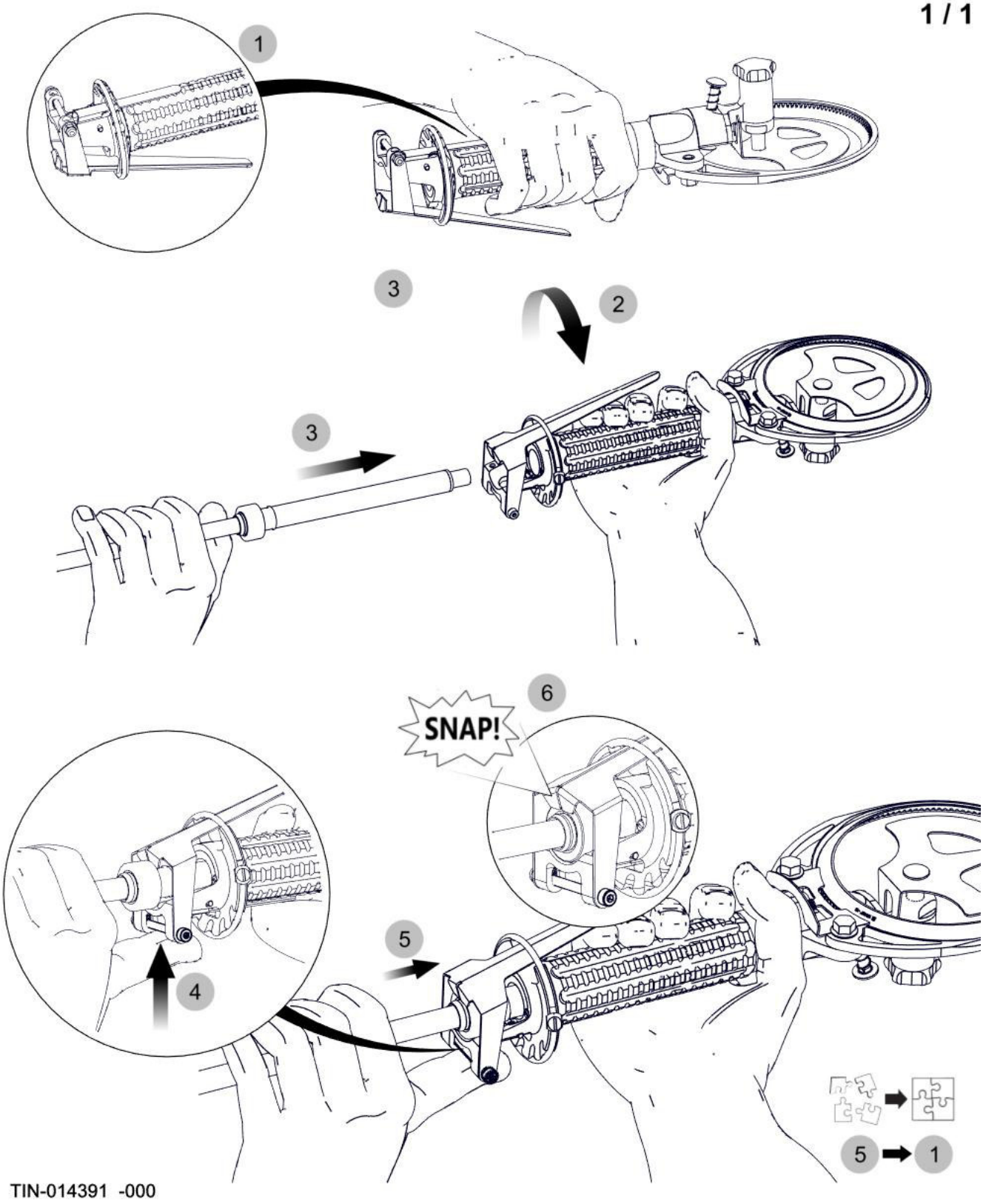
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

1-6 **TIN-014391** 5-1



TIN-014391 -000

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

Demontage *Disassembly*

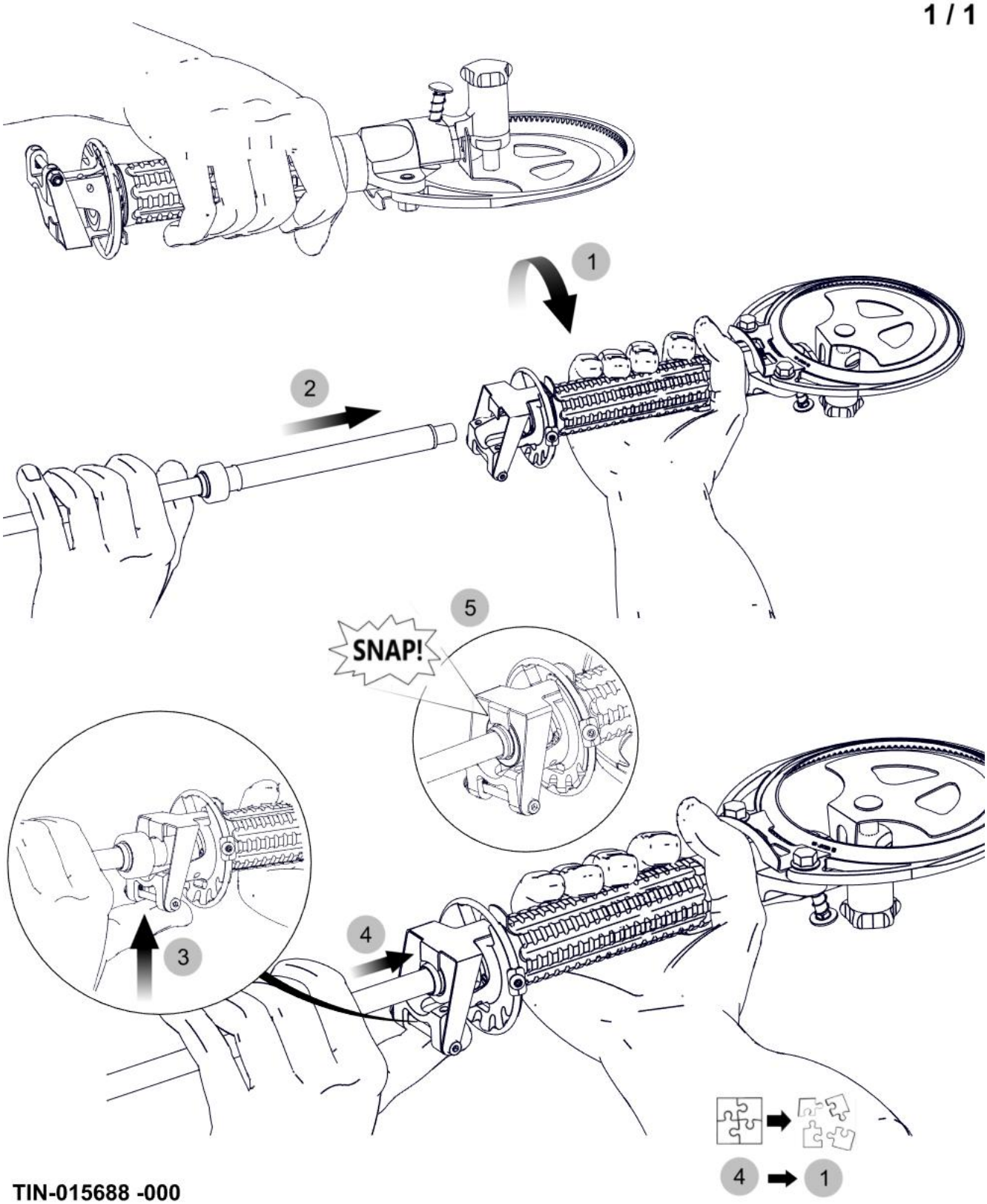
Montage *Assembly*

Betriebsanleitung beachten *Pay attention to operating manual*

Montageanleitung *Assembly instructions*

Werkzeugsatz *Toolkit*

1-5 **TIN-015688** 4-1



TIN-015688 -000

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

Demontage *Disassembly*

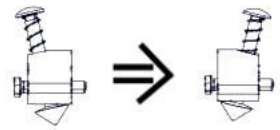
Montage *Assembly*

Betriebsanleitung beachten *Pay attention to operating manual*

Montageanleitung *Assembly instructions*

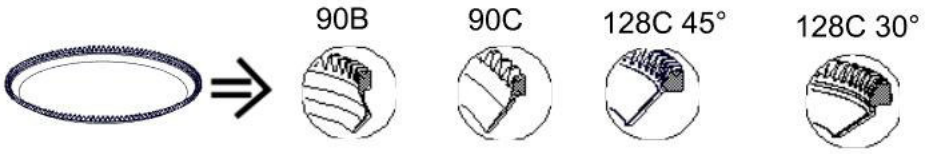
Werkzeugsatz *Toolkit*

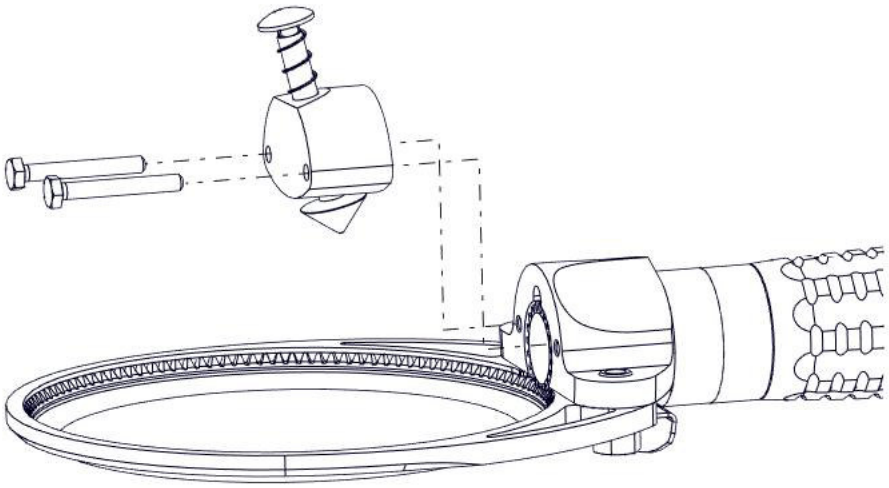
TIN-015017

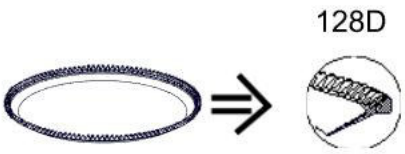


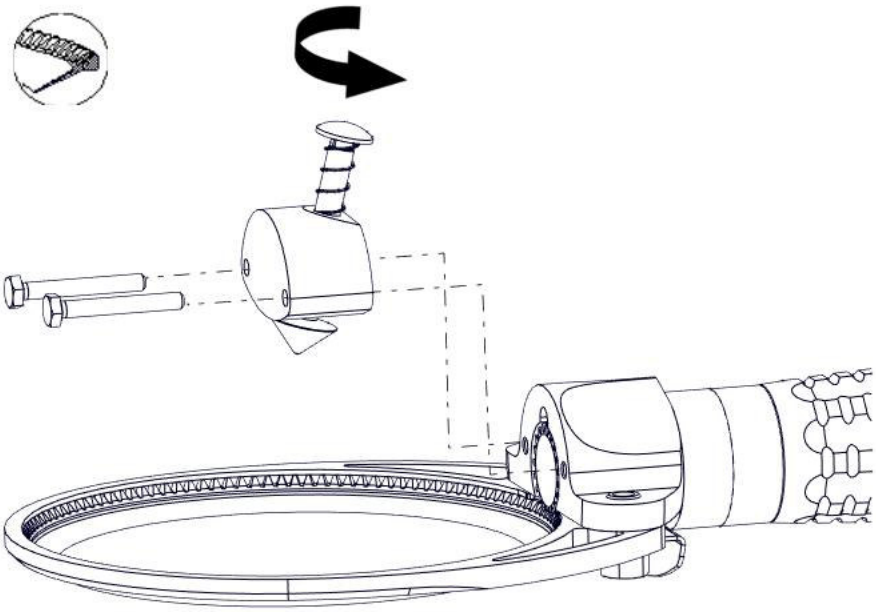


SW7









TIN-015017 -000

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

Demontage
Disassembly

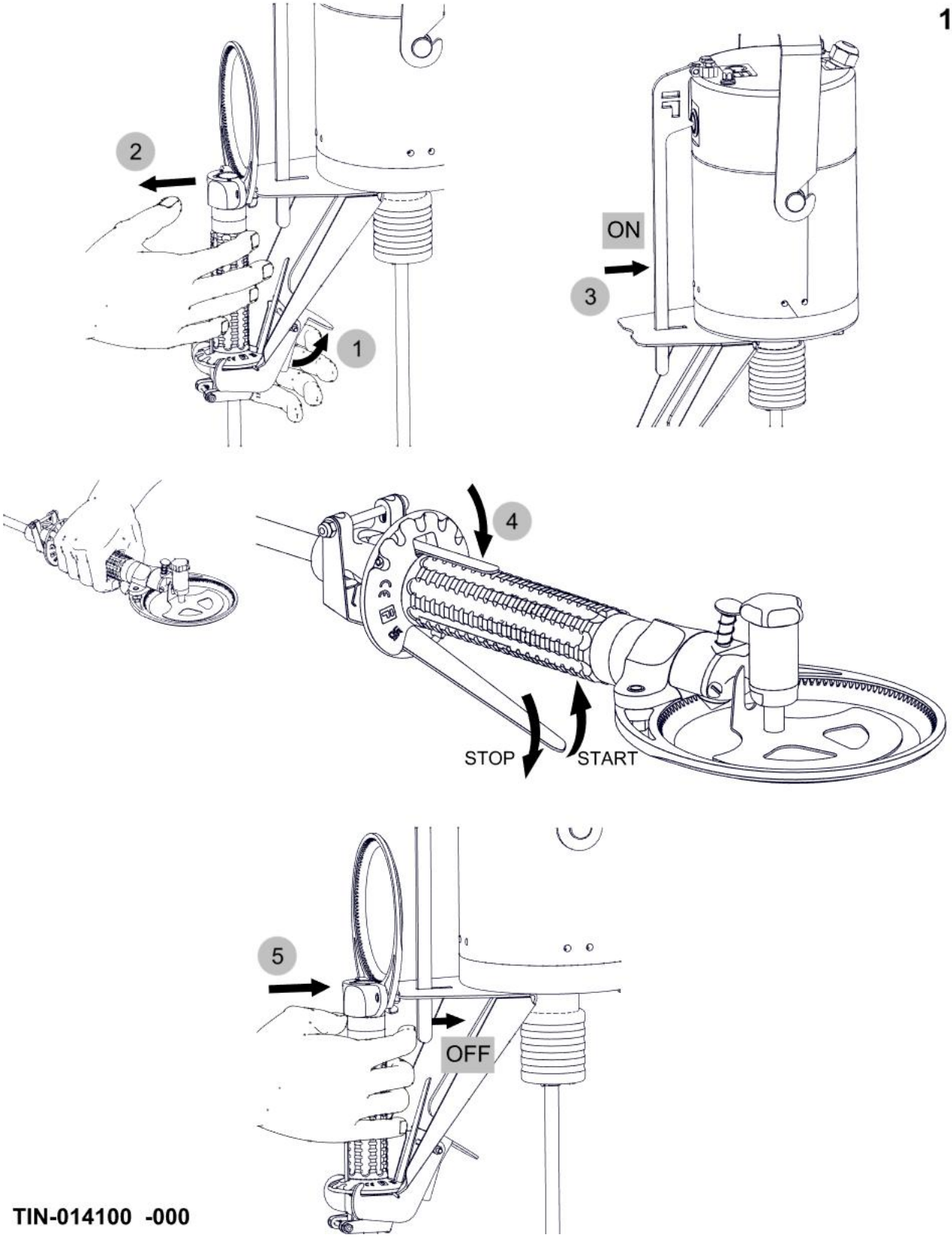
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

TIN-014100



TIN-014100 -000

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

Demontage *Disassembly*

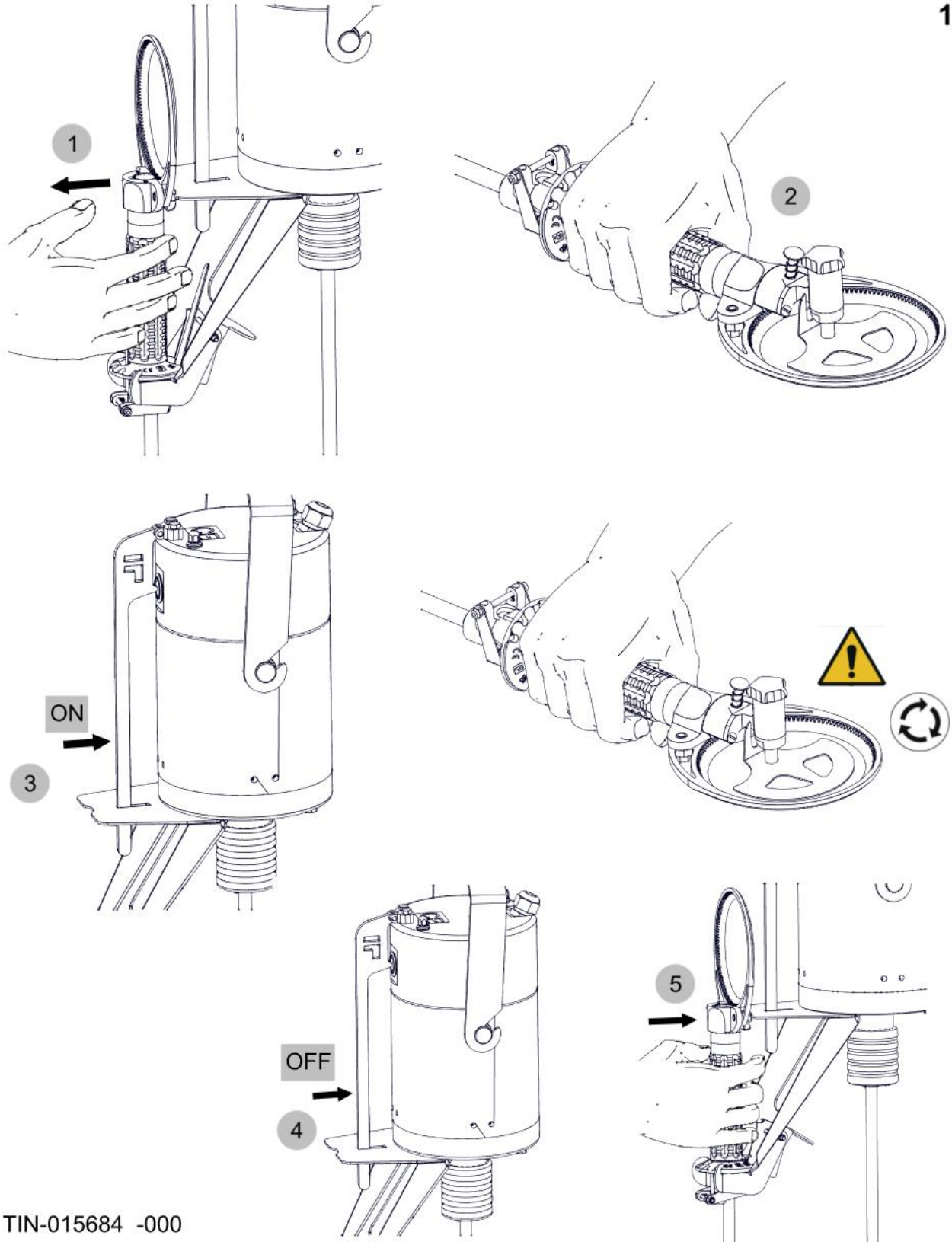
Montage *Assembly*

Betriebsanleitung beachten *Pay attention to operating manual*

Montageanleitung *Assembly instructions*

Werkzeugsatz *Toolkit*

TIN-015684



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*

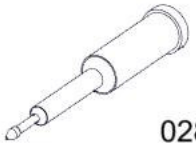
Montageanleitung *Assembly instructions*

Werkzeugsatz *Toolkit*

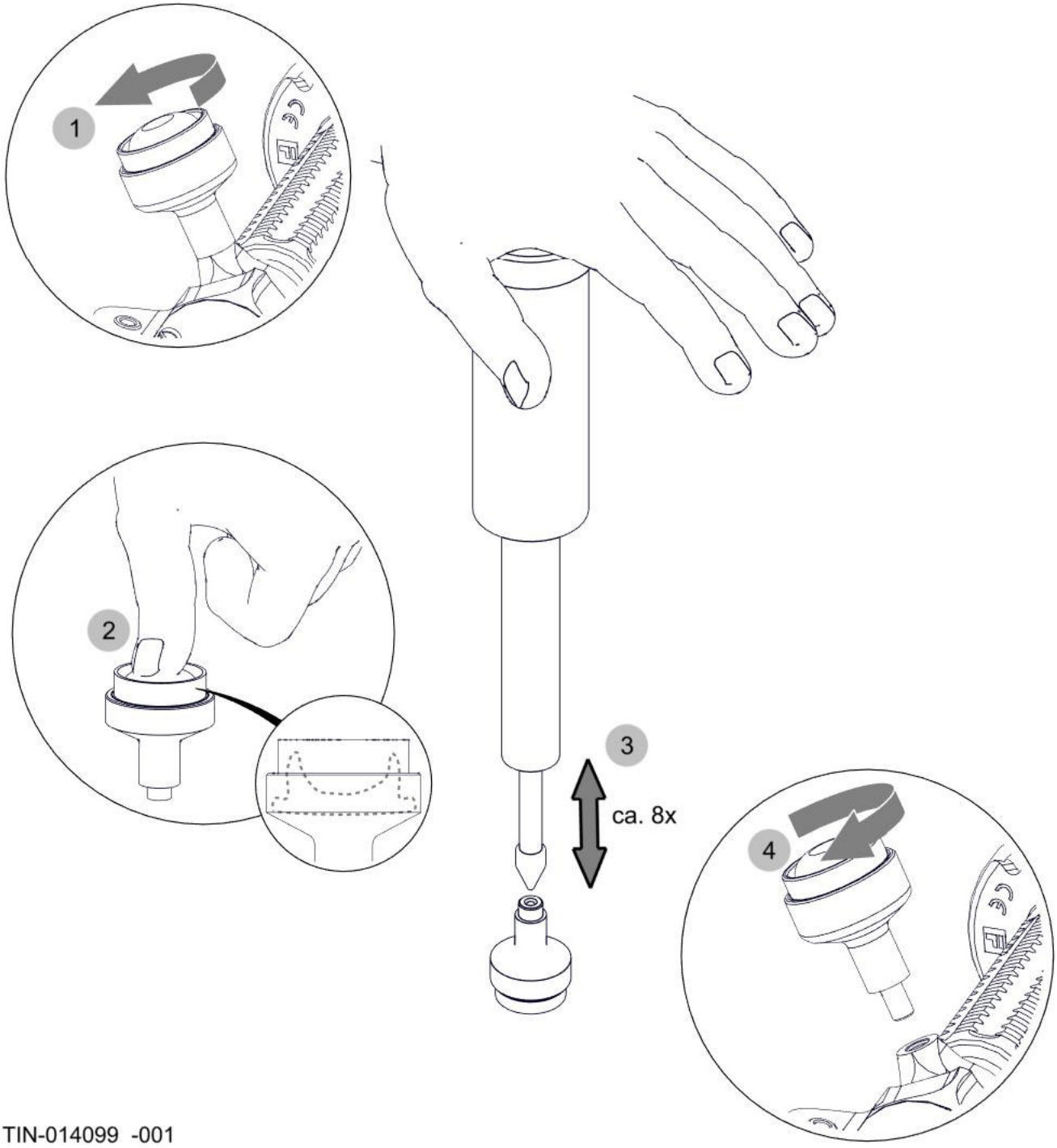
TIN-014099



028-300-049



028-100-006



TIN-014099 -001

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

Demontage
Disassembly

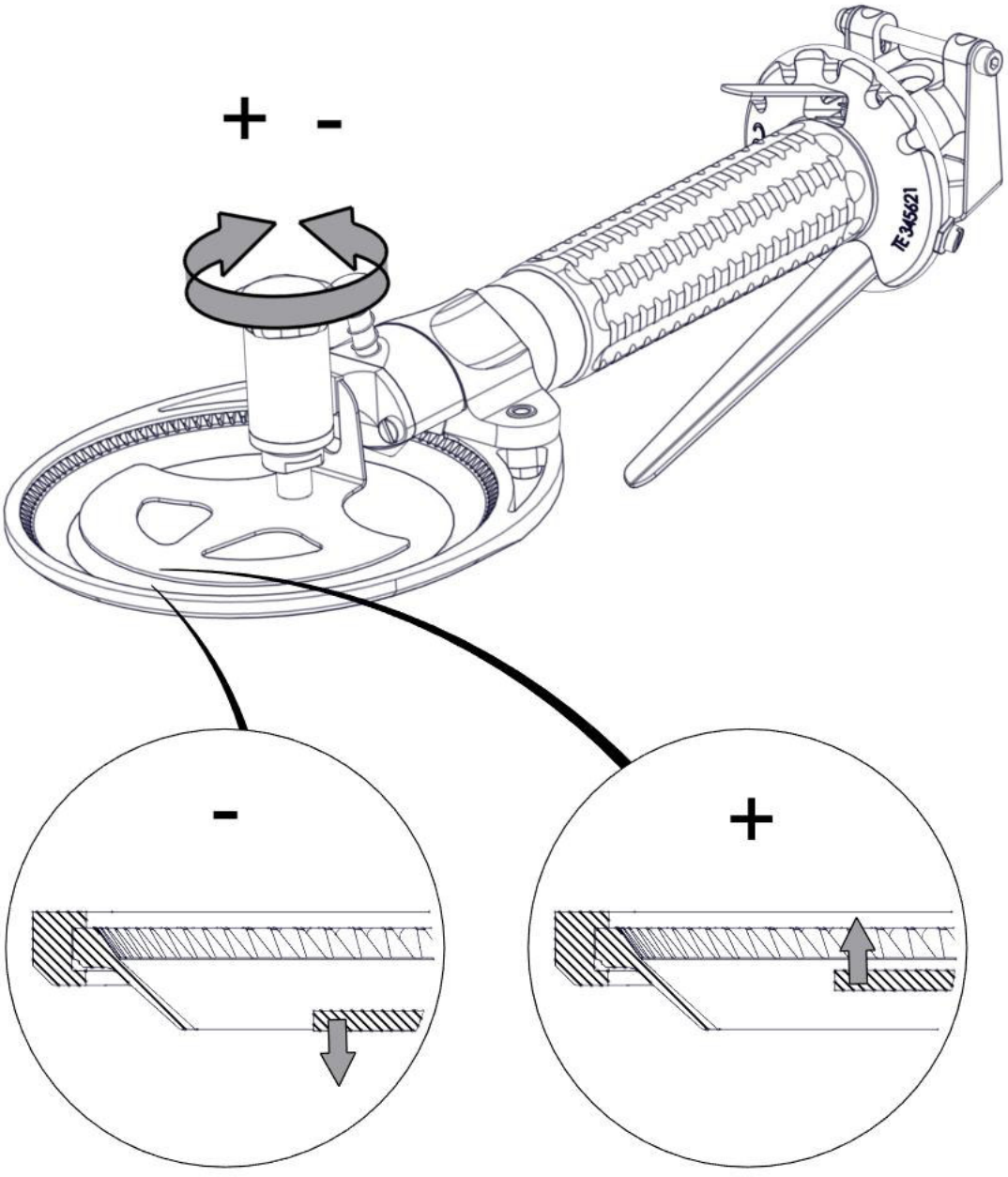
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

TIN-013569



TIN-013569 -002

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

Demontage
Disassembly

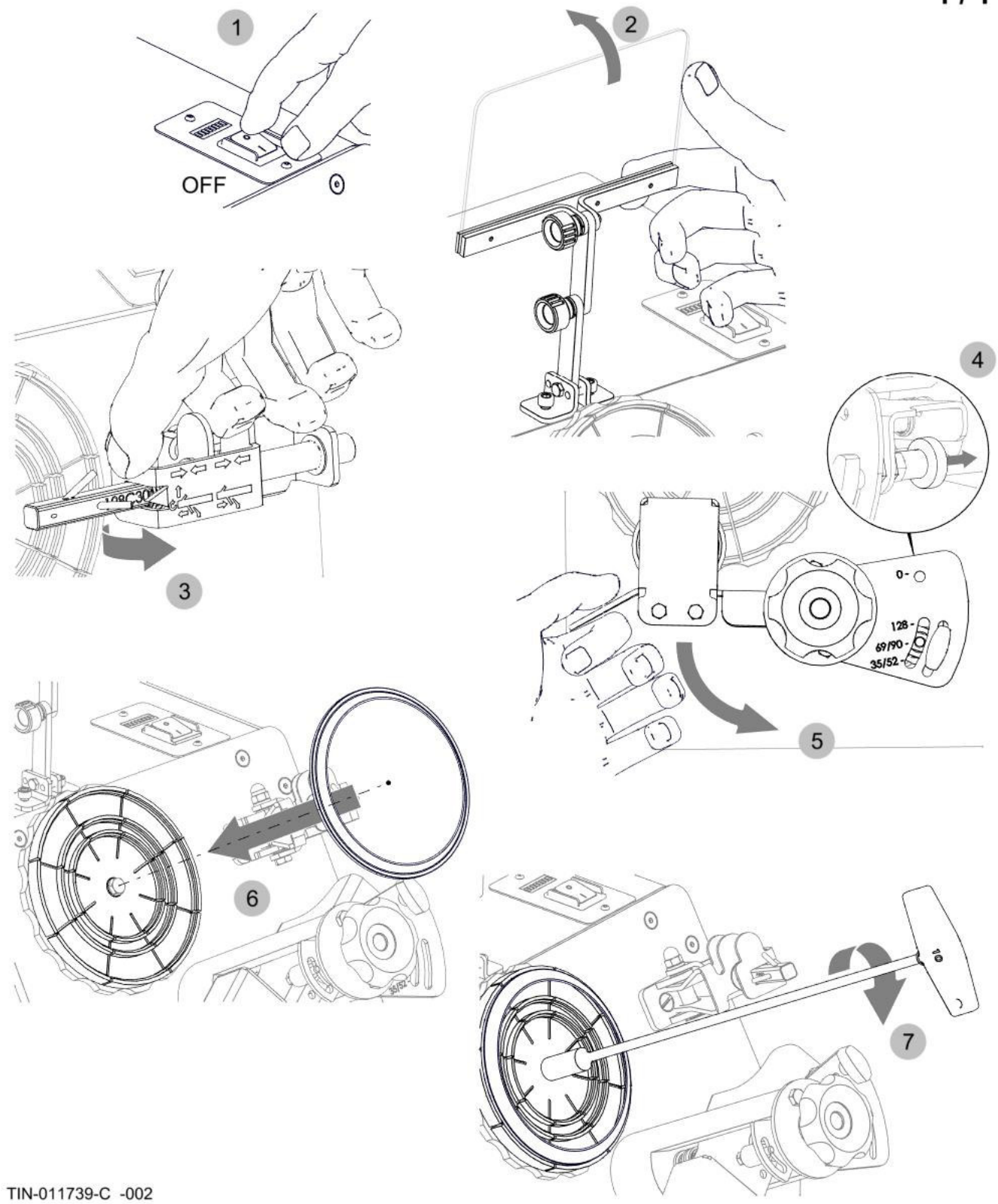
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

TIN-011739



TIN-011739-C -002

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

Demontage
Disassembly

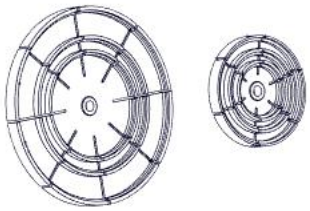
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

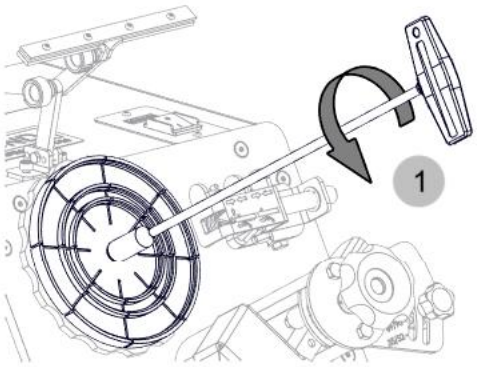
Werkzeugsatz
Toolkit

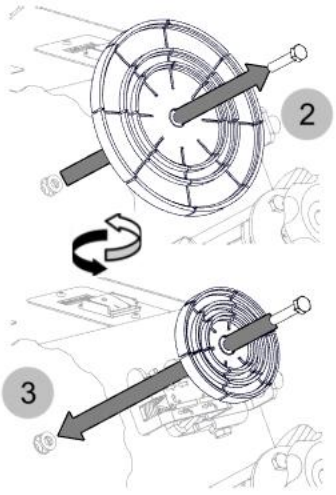
1-2 **TIN-015685** 3-4

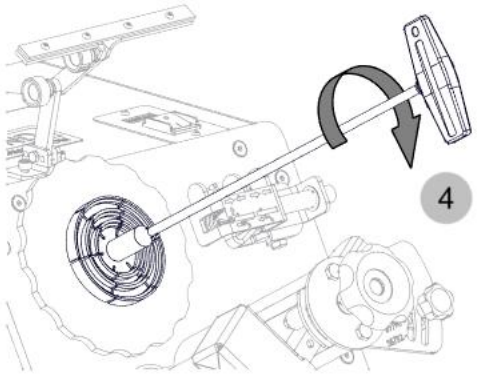




028-EL2-027	**028-EL2-152**
128/ 90/ 69	69/ 52/ 35







TIN-015685 -000

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

Demontage *Disassembly*

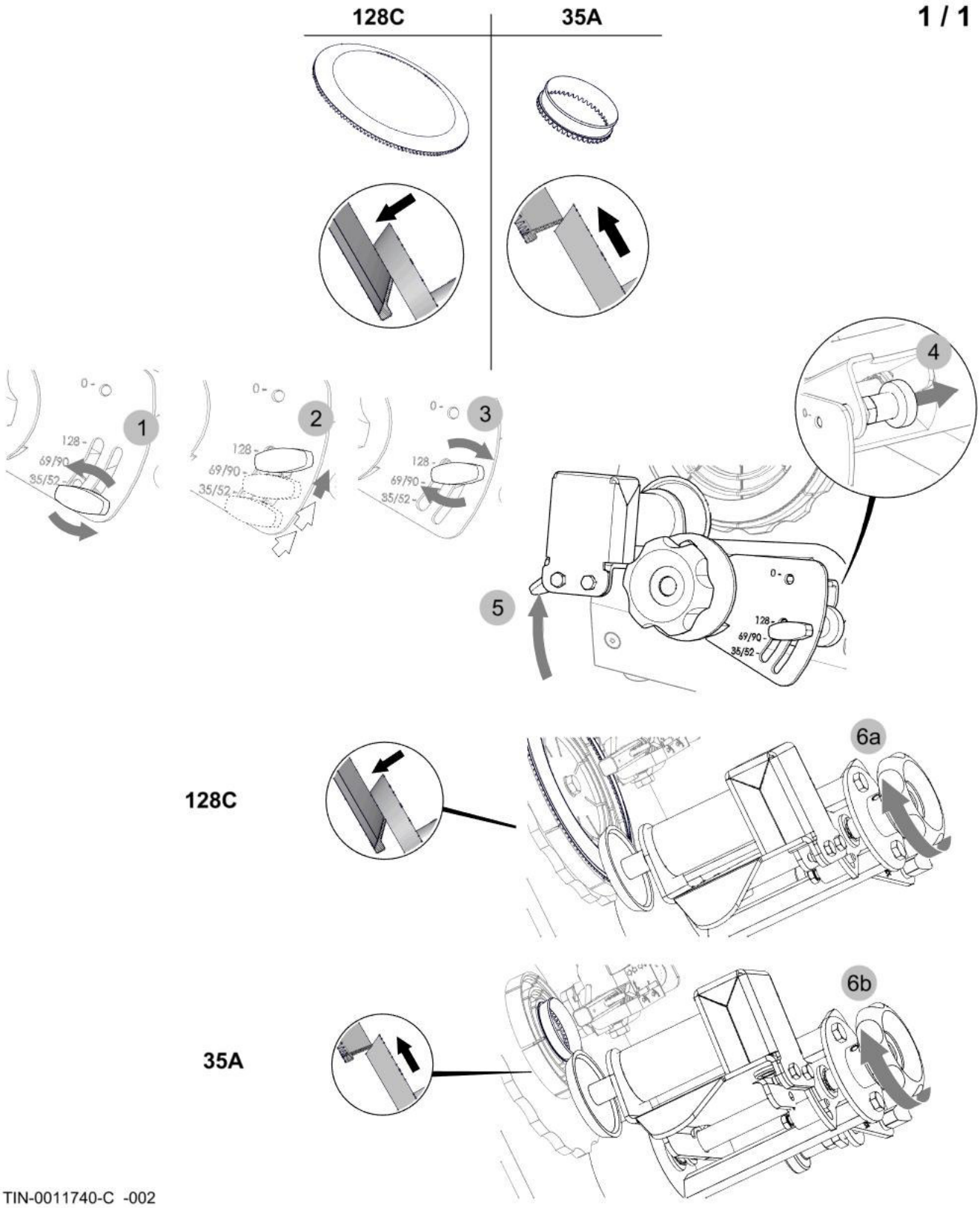
Montage *Assembly*

Betriebsanleitung beachten *Pay attention to operating manual*

Montageanleitung *Assembly instructions*

Werkzeugsatz *Toolkit*

TIN-011740



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

Demontage *Disassembly*

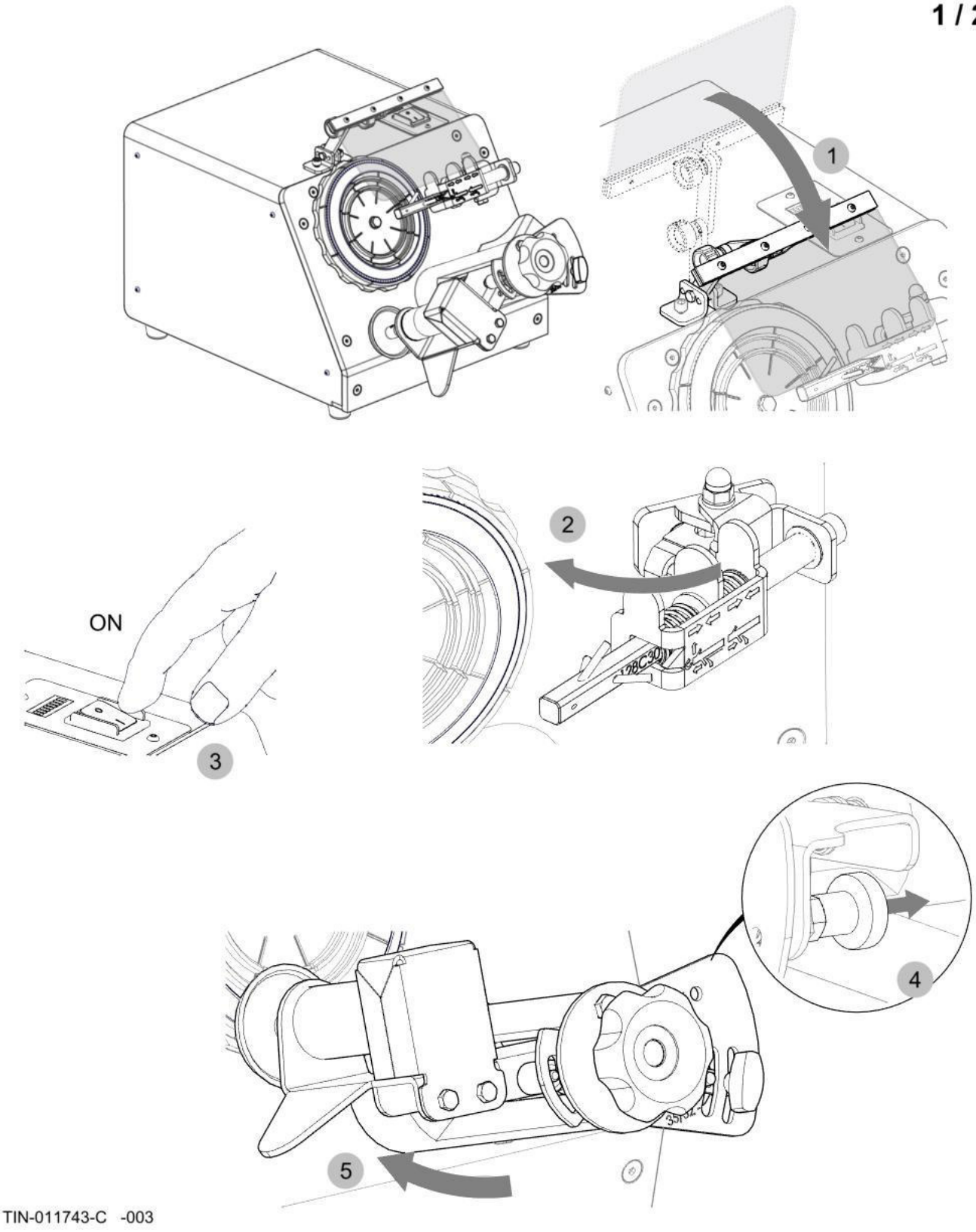
Montage *Assembly*

Betriebsanleitung beachten *Pay attention to operating manual*

Montageanleitung *Assembly instructions*

Werkzeugsatz *Toolkit*

TIN-011743



TIN-011743-C -003

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

Demontage
Disassembly

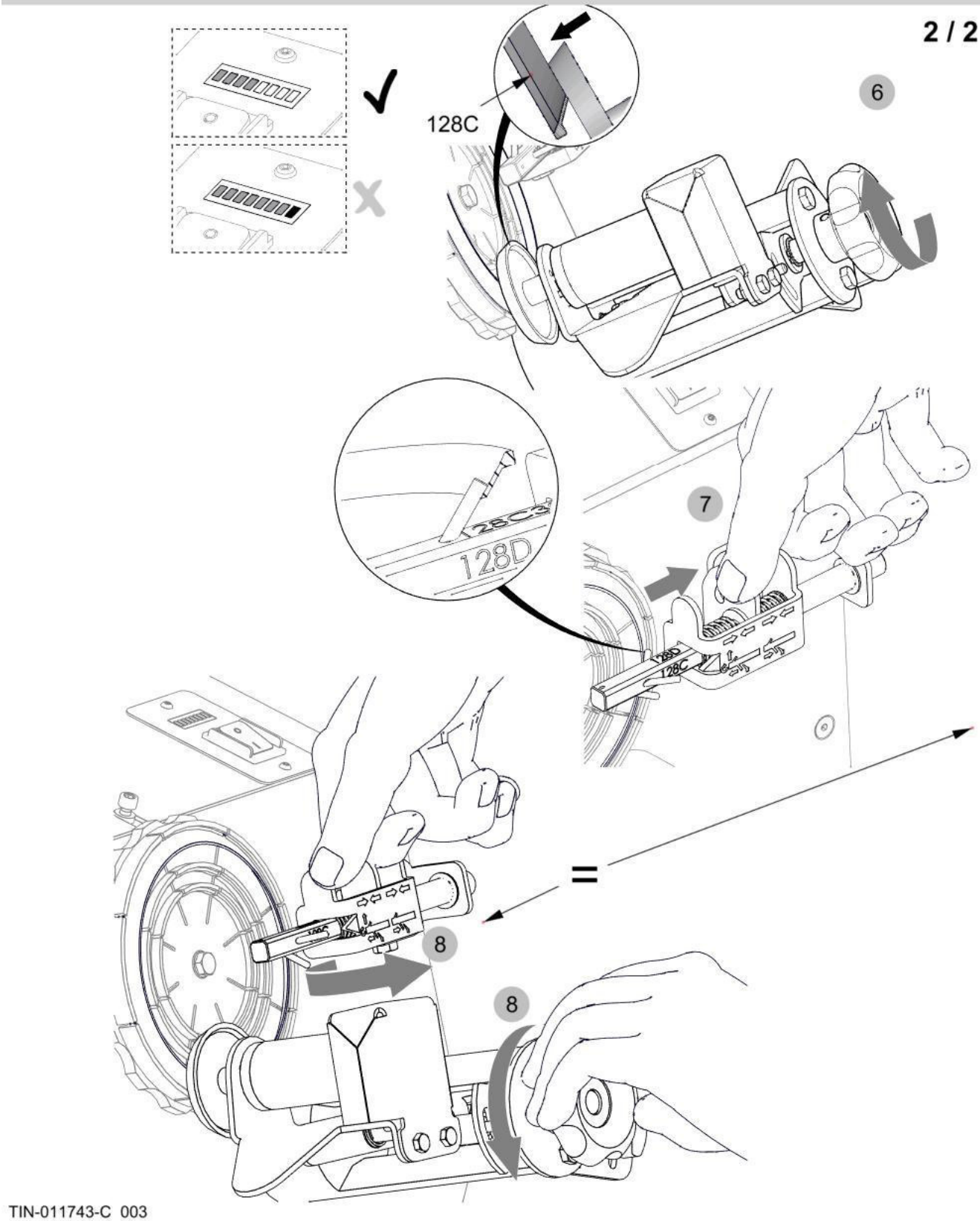
Montage
Assembly

Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

TIN-011743



TIN-011743-C 003

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

Demontage
Disassembly

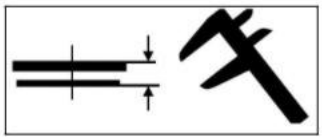
Montage
Assembly

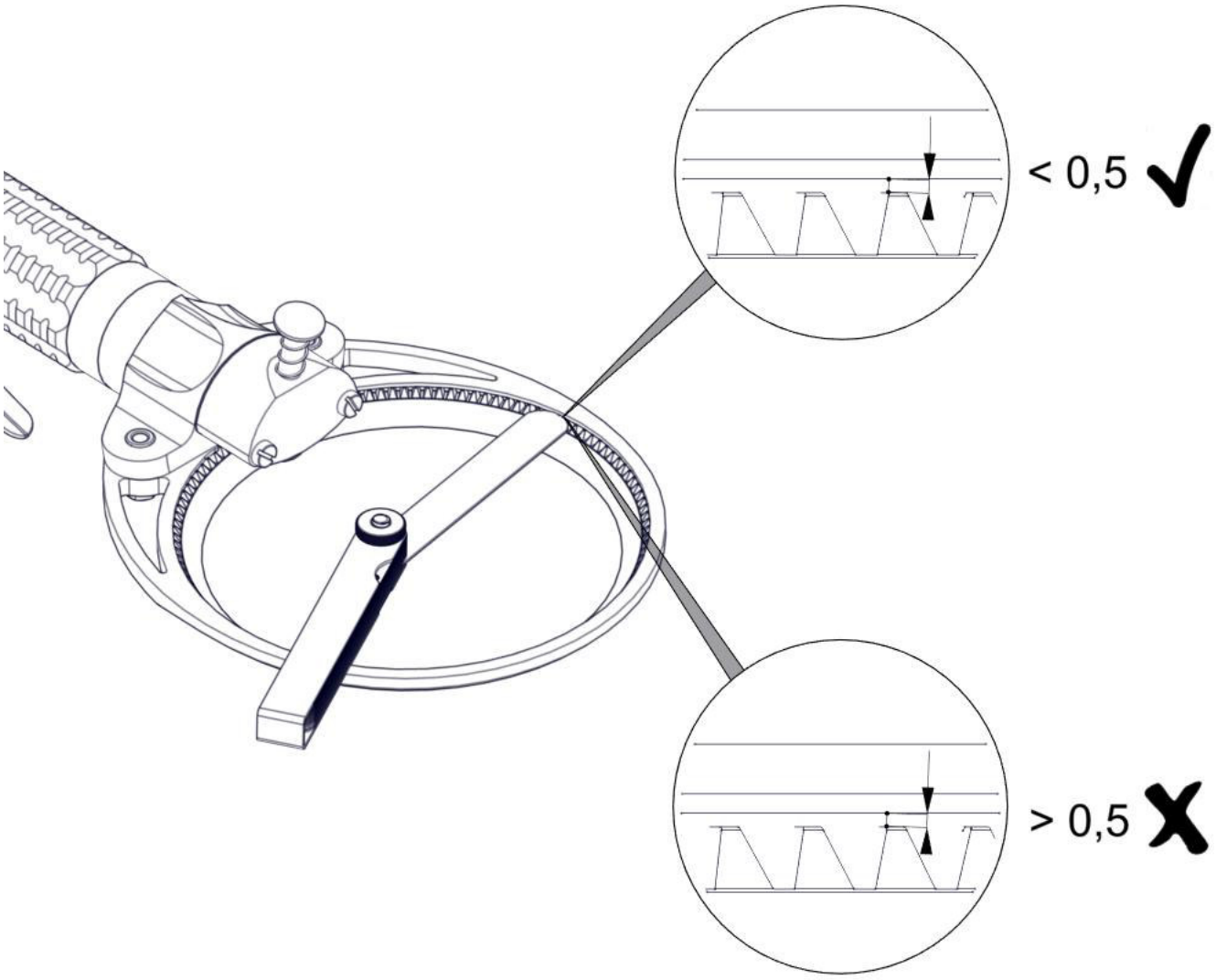
Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

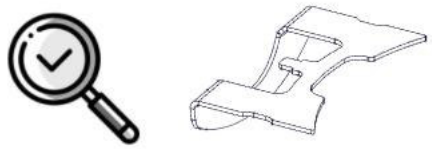
TIN-014108

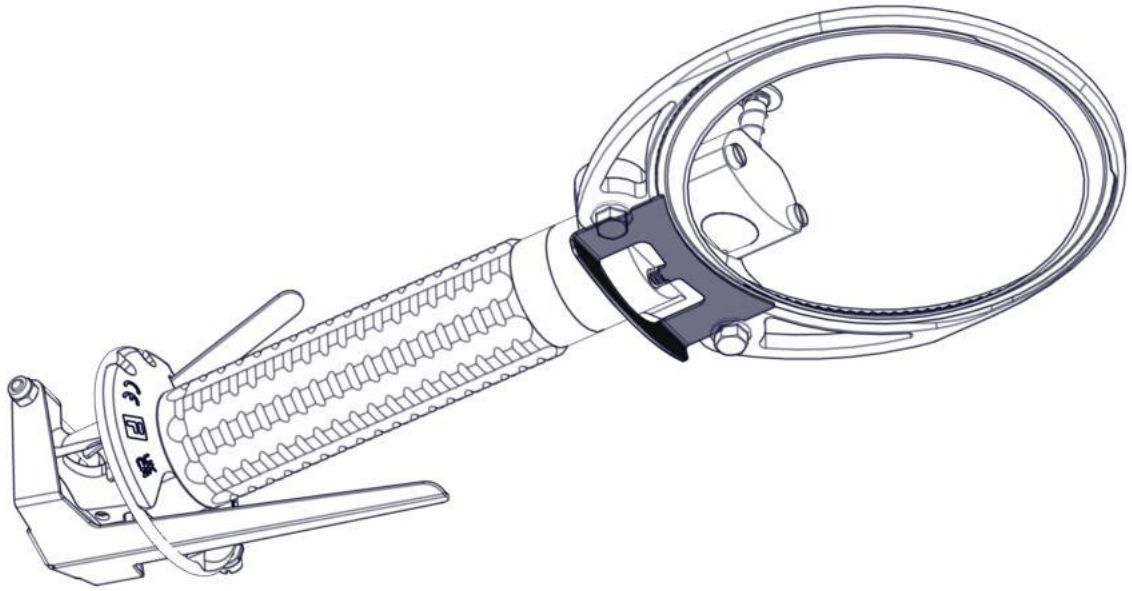


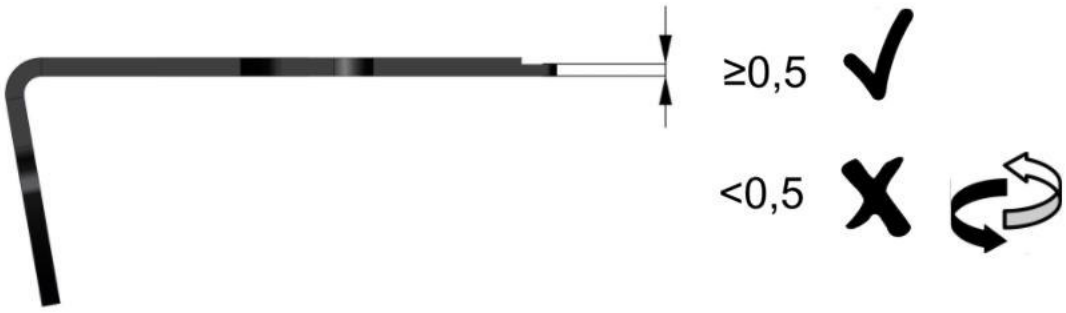


TIN-014108 -000

TIN-014993







TIN-014993 -000

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

Demontage
Disassembly

Montage
Assembly

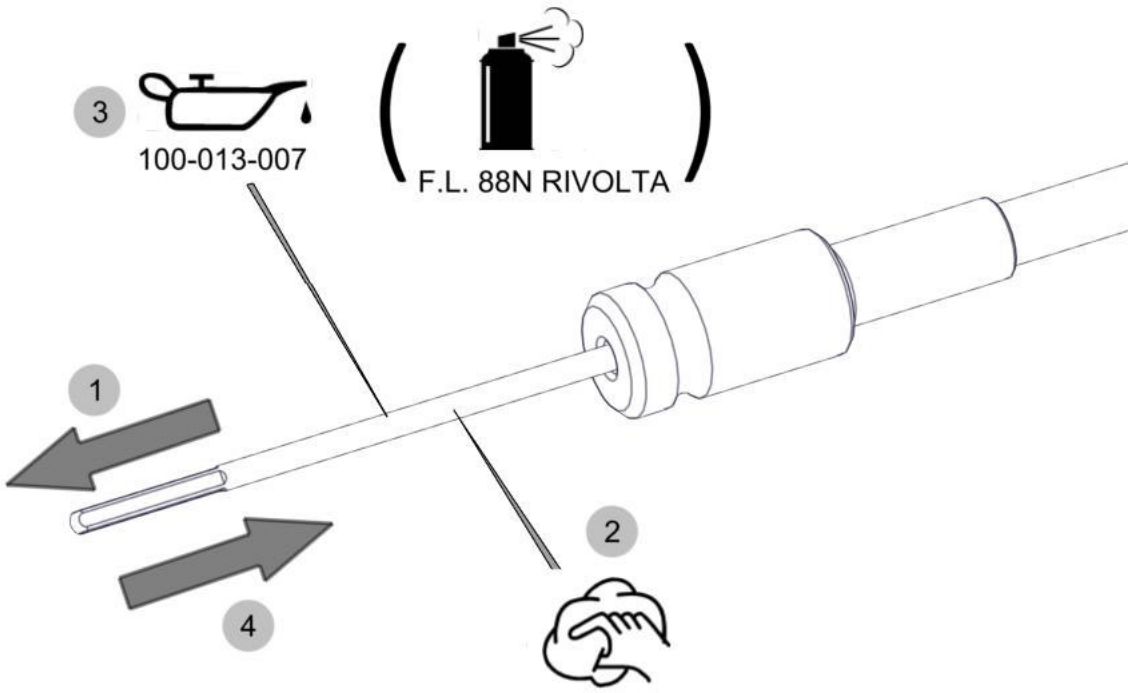
Betriebsanleitung beachten
Pay attention to operating manual

Montageanleitung
Assembly instructions

Werkzeugsatz
Toolkit

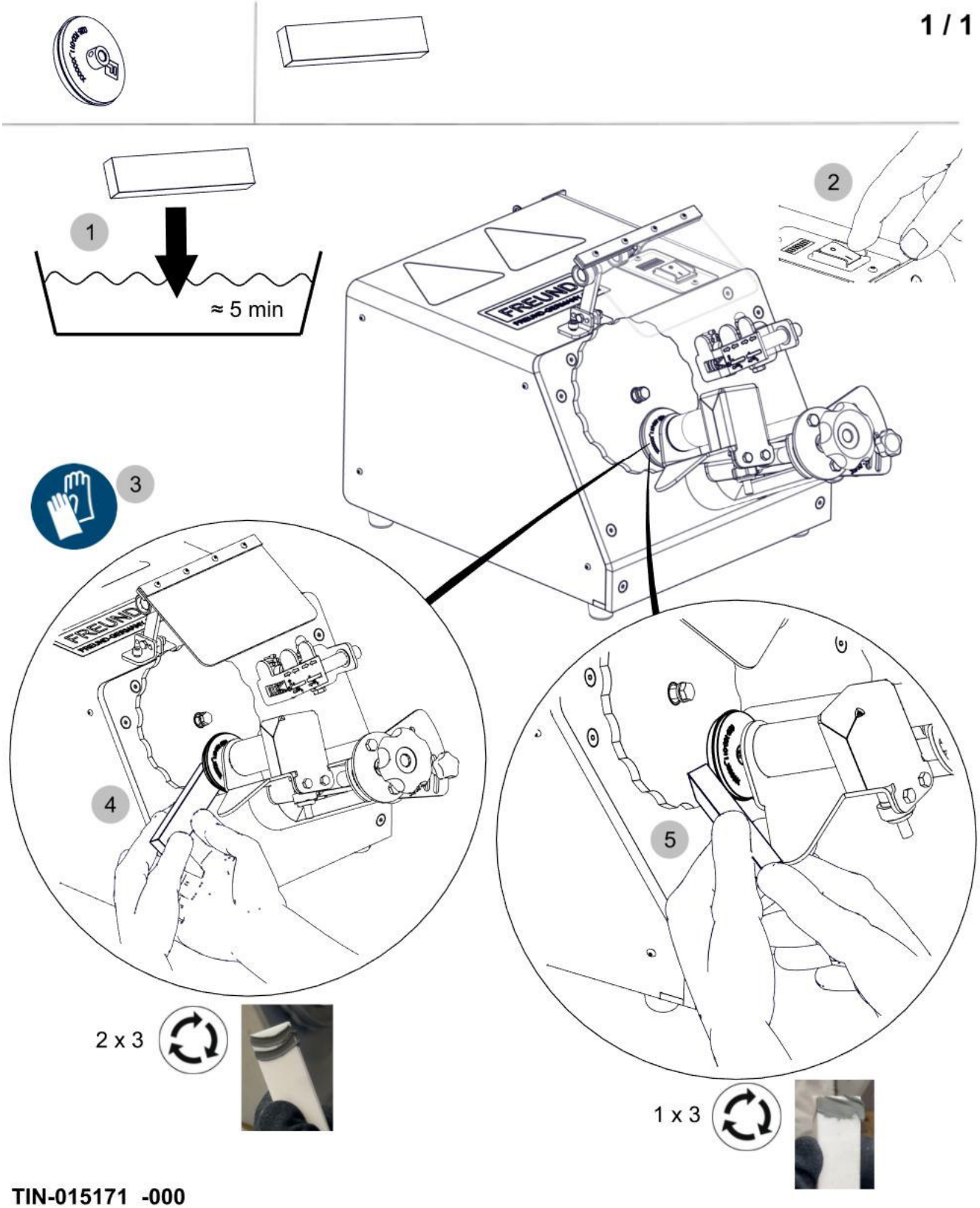
TIN-014138





TIN-014138 -003

TIN-015171



TIN-015171 -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*

Material Declaration of Conformity

GERMAN QUALITY SLAUGHTER-TOOLS

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

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

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

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

Machine type: **Trimmer-evo3**

Machine parts	Material designation	Comment
Frame	Aluminium	anodized
Blade housing	Stainless steel	
Knife	Stainless steel	hardened
Corrugated hose, Protective hose	Plastic	
Quick release	Stainless spring steel	
Screws	Stainless steel	
Cover	Stainless spring steel	
Hose adapter	Stainless spring steel/ Stainless steel	

Material Declaration of Conformity

GERMAN QUALITY SLAUGHTER-TOOLS

Machine parts	Material designation	Comment
Depth control	Plastic/ Stainless spring steel/ Stainless steel	
Sprocket	Stainless steel	
Puller	Plastic/ Stainless steel	

Paderborn, 19.08.2025

Head of Mechanical Design

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

Hereby we declare that the machine:

Type	**Trimmer E35_evo3, Trimmer E52_evo3** **Trimmer E69_evo3, Trimmer E90_evo3** **Trimmer E128_evo3**

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:

Regulation 1935/2004	**Food safety**
Regulation 10/2011	**Plastics Regulation**
Regulation 2020/1245	**Amendment to the Plastics Regulation**

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

EN ISO 12100:2011-03	**EN 12984:2011-03**
EN ISO 13861:2012-01	**EN ISO 1672-1:2014-12**
EN ISO 1672-2:2021-05	**EN ISO 5349-1:2001-12**

Sample

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

Hereby we declare that the machine,

Type **TM-E6000_evo3**

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

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

DIN EN ISO 12100:2011-03	**DIN EN ISO 13732-1:2008**
DIN EN 60529:2014-09	**DIN EN 60204-1:2008**
DIN EN 12984:2011-02	

Sample

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

Hereby we declare that the machine,

Type **MDL1**

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

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

DIN EN ISO 12100:2011-03	**DIN EN ISO 13732-1:2008**
DIN EN 60529:2014-09	**DIN EN 60204-1:2008**
DIN EN 12984:2011-02	

Sample

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

Hereby we declare that the machine.

Type **TSM-E1**

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

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

DIN EN 60204-1:2018	**DIN EN ISO 12100-2011-03**

Sample