



INSTRUCTION MANUAL



Electrical Chain Peeler (Battery) For PE/PP pipes 800-1200 mm / 32-48" IPS / 30-48" DIPS

Optional extension to 1600 mm / 63" IPS / 60" DIPS

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1. Information about this manual

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No part of the document may be altered, copied, electronically processed or distributed without the prior written consent of PF Schweißtechnologie GmbH.

Read this instruction manual completely. The handling and use of the product described below are not always self-explanatory. Therefore the knowledge of the technical documentation is obligatory.

Only in this way can you use the product properly, correctly, safely and effectively.

If parts of the technical documentation are damaged, illegible or lost contact your dealer or the manufacturer to obtain the documents again.



Residual risk

This document informs you about remaining residual risks against which construction and protective measures are not or only partially effective.



Errata and technical modifications reserved!

All notes and technical specification in this instructions manual were prepared with all necessary care. The manufacturer reserves all rights for technical modifications of the Saddle Drilling Equipment or its components without prior notice to customers. Technical modifications cannot always be directly transferred to the documentation.

If you are in doubt about the topicality of the documentation please contact your distributor or the manufacturer.

1.1. Applicable Documents

The product includes additional documentation from suppliers. The following documents are included in delivery and are to be seen as part of the technical documentation. Therefore, it is imperative that you also read and observe them completely.

Document

Insctruction manual for battery charger

1.2. **Warnings**

When using the product, it is always necessary to carry out activities in which danger may occur. In this document, dangerous situations are preceded by warnings, which must be observed under all circumstances.

1.2.1. Description of the structure of the warnings

The warnings are provided with a signal word and one or more symbols. The signal word with the pictogram describes the severity of the danger. Below is an example for clarification.



A CAUTION (A)



Hazard description (B)

Further explanation on the nature and cause of the danger (C)

Measures to prevent or avoid the danger (D)

Symbol	Information	Content	Example
0	Signal word	Classification of the danger by symbol and signal word	Caution
В	Danger description	What is the danger and when does it occur?	Danger due to hot surface
С	Possible consequences if the danger occurs	What will or can happen if you do not pay attention to the warning?	The hot surface can cause burns.
D	Measures to avoid the danger	What needs to be done? What must be avoided? What protective measures must be taken?	Keep your distance and wear fire resistant gloves.

1.2.2. List of warnings



General remark

This is a remark of a general nature. These advices describe recommended courses of action to enable the user to perform steps quicker and safer. This warning symbol can also indicate important or obligatory general conditions.

NOTE



Potentially harmful situation

This signal word indicates a possible dangerous situation for the product, its components, accessories and / or the environment.





Potentially dangerous situation

This signal word indicates a danger with a low degree of risk. Failure to do so could result in minor or moderate injury.





Dangerous situation

This signal word indicates a danger with a medium degree of risk. Failure to do so may result in serious injury or death.



Immediate danger

This signal word indicates a danger with a high or very high degree of risk. Failure to do so will result in serious injury or death.

1.3. Symbolism

In this document, various symbols are used as aids. The meaning of each is explained below.

1.3.1. General symbols and signs

Symbol/sign

Explanation



Important information

1.3.2. Warning symbols

Symbol Explanation



General warning symbol



Warning: Electricity



Warning: Hot surface



Warning: Risk of entanglement



Warning: Risk of cutting or puncturing



Warning: Risk of injury to the hands / extremities

1.3.3. Requirement symbols

Symbol/sign **Explanation**



General requirement



Information about / in the documentation

This symbol indicates that special attention must be paid to the technical documentation.



At least 2 people required for operation!



Wear ear protection!



Wear eye protection!



Cover long hair with hairnet or cap!



Use hand protection!



Wear safety shoes!



Ground before use!



Pull out the mains plug!

1.3.4. Prohibition symbols

Symbol/sign	Explanation
	General prohibition
	No reaching in!
	Wearing gloves is prohibited!

1.4. Preconditions, requirements and steps

1.4.1. Preconditions and requirements

If certain prerequisites or conditions are attached to the execution of a work step, these are mentioned separately prior to the process description and marked with an exclamation mark.

Example: Precondition

- ! Key SW4 is ready.
- ! Case is open.
- ! ...

1.4.2. Steps without fixed sequence

Steps that can be performed without a fixed sequence are indicated by an arrow. Nevertheless, the steps are absolutely necessary!

Example: Action steps without fixed sequence

- à Wear safety shoes.
- à Watch the oil pressure.
- à ...

1.4.3. Action steps with a predetermined sequence

Steps that must be carried out according to a fixed sequence are provided with a consecutive numbering. These steps can be interrupted by intermediate results or descriptions of running processes, which is represented by a square. When the result of the work steps is reached, this is indicated by a tick.

Example: Action steps with fixed sequence

- 1. Press button A to start the trimming procedure.
- ▼ The trimmer starts to trim.
- 2. Watch the trimming procedure.
- 3. Press button B to stop the procedure.
 - ü Trimming procedure is finished.

2. Warranty and liability

Warranty and liability claims for personal injury and property damage are excluded if they are attributable to one or more of the following causes:

- **1** Improper use of the product, its components and accessories outside its scope of application.
- Improper assembly, commissioning, operation, maintenance and improper transport of the product including its components and accessories.
- Operation of the product including its components with defective or improperly installed safety devices.
- **5** Failure to follow the instructions in the instruction manual.
- Unauthorized structural changes on the product or its components and accessories.
- **1** Inadequate monitoring of machine parts that are subject to wear.
- Ø Repairs carried out improperly.
- **Ø** Disasters due to foreign bodies and force majeure.

3. Identification

3.1. Product labeling

Product description: Electrical Chain Peeler (Battery)

Product type: Tool for scraping PE/PP pipes

Serial number: Construction year:

3.2. Information about the manufacturer

PF-Schweißtechnologie GmbH Tel.: +49-6631-9652-0
Karl-Bröger-Str.10 Fax.: +49-6631-9652-52
DE-36304 Alsfeld E-Mail: info@pfs-gmbh.com
Germany Web: www.pfs-gmbh.com

3.3. Type plate

The type plate is a unique identifier of the product and is structured as follows:



No. Description

- 1 Code
- 2 Productname in German
- 3 Productname in English
- 4 Transport weight
- 5 Dimensions

4. Product description



Note

When the term "Electrical Chain Peeler" is used below, this includes all variants of the tool. Otherwise, details of each specific feature will be mentioned seperately.

4.1. Purpose and intended use

The Electrical Chain Peelers 800-1200 mm (Battery) (800-1600 mm with optional extension) meant for the removal of the oxide layer on polyethylene pipes as preparation for electrofusion (EF). Additionally they are approved for usage on polypropylene (PP) and cross-linked polyethylene (PE-X) pipes. The peeler chains can universally be used to peel pipe ends (for welding fittings) and to peel spots on pipes (for welding saddles).

The Electrical Chain Peeler (battery) is powered by a removable cordless screwdriver. The installed torque attachment offers a sufficiently high torque to move the chain peeler around the pipe without any other user intervention. The drive is switched on and off via a switch fixation.

The product may only be used with the components with which it was delivered or with accessories that have been explicitly released for use by PF-Schweißtechnologie GmbH. Only the use of original spare parts and original accessories is permitted. It is forbidden to replace parts or components of the product with third-party products.

The use of the product is reserved to trained professional personnel only. The applicable standards and guidelines (e. g. DVS, CEN, ISO, national standards, etc.), as well as, in particular, the accidental regulations must be complied with. The manufacturer is not liable for damage caused by improper handling or operation.

The described product must only be operated, maintained and repaired by personnel that is familiar with use of the tool and its dangers.

Proper use includes observing all instructions in the entire associated documentation, performing the inspection and maintenance work, in accordance with the instructions in this documentation as well as adhering to the general accident prevention regulations and taking note of all safety and application instructions.

4.2. Improper use



Disclaimer!

The product may not be used for any purposes other than those mentioned. The basic conditions mentioned must be adhered to. The use of the product as a whole or parts thereof for purposes other than those mentioned above shall be considered as improper use.

The operator or user is liable for improper use!

4.3. Modifications and alterations

Modifying the product without prior consulting of the manufacturer is forbidden and shall be considered as improper use.



Constructional modifications are subject to prior approval!

No modifications, additions or conversions of the product or its components may be made without the manufacturer's approval.

In the case of infringements, the warranty and liability claims shall be void.

4.4. Ambient conditions

4.4.1. Environmental conditions

The Electrical Chain Peeler (battery) must not be used on wet or oil-smeared pipes.

4.4.2. Space requirements

The Electrical Chain Peeler (battery) requires a space of at least 22 cm around the pipe surface in order to run freely.

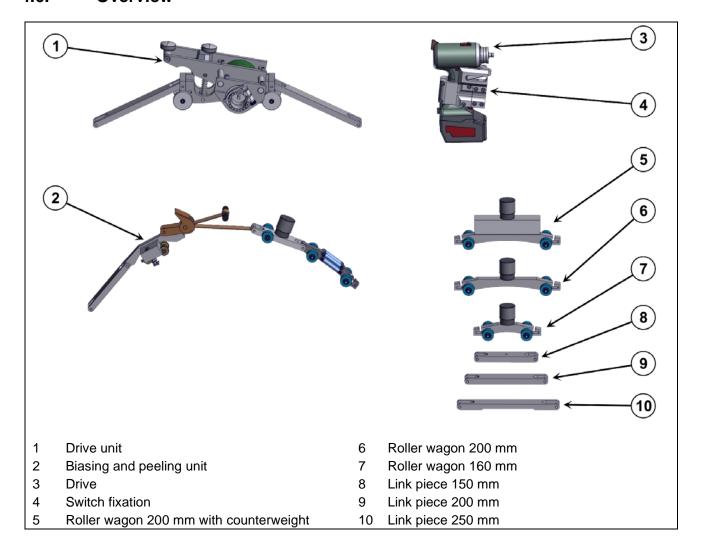
4.4.3. Weight

Due to the high weight, the transport as well as the mounting and dismounting must be performed by at least 2 people.

4.5. Assembly and mounting

The Electrical Chain Peeler (battery) is available in different variants. The assembly and mounting of the individual variants are identical. Special procedures are mentioned separately.

4.6. Overview



4.7. Description of the function

After the pipe surface has been cleaned of dirt such as sand, stones, mud, oil, water or other pollution, the installation (by at least 2 people) of the Electrical Chain Peeler (battery) can begin. The area of the pipe to be peeled must first be marked.

First, make sure that the drive wheel is in the home position (topmost position). It must not be in contact with the pipe surface during installation. Use the catch in combination with rotations of the adjusting knob on the threaded spindle to bring the drive wheel into its home position.

The state of charge of the battery should be checked before use using the corresponding test button.

The assembly table provides information about which elements need to be interconnected. Depending on the pipe dimension, the number of elements differs. If the necessary elements of the Electrical Chain Peeler (battery) are connected to each other, the tool is lifted onto the pipe by at least 2 persons. One person secures the tool against falling while another person connects the ends of the chain.

After that the ratchet strap has to be tightened. The ratchet strap should only be tightened so much that the tool can still be easily turned around the pipe.

Before tightening, the Electrical Chain Peeler (battery) must be aligned so that the peeling blade rests approx. 50 to 70% on the pipe or area to be peeled before starting to work. That ensures that during the first revolution no area of the tube remains unpeeled. After alignment, the strap must be tightened with the strap ratchet. It must still be possible to pull the tool, but must not lie too loose on the pipe.

Before starting the peeling process, the drive must be inserted into the receptacle and locked. The drive can be mounted in different positions. To reduce the space requirement, it should be as horizontal as possible in operation. The drive must be in 1st gear, never in the 2nd! The dial for the torque limitation should be set to a setting between 8 and 10. A switch fixation for the trigger switch is used to switch the drive on. The drive wheel starts to run.

To start the peeling process with automatic drive, press once briefly and firmly on the adjusting knob of the pressure element to lower the drive wheel to the pipe surface. Then the Electrical Chain Peeler (battery) is moved around the pipe.

As an alternative, the tool can also be pulled around the pipe manually without a drive.

4.8. Safety features

4.8.1. General

Safety features on the product or its components serve to protect operators. The product may only be used if all safety-related equipment is present and fully functional.



Danger due to manipulation or changes to the product or its safety features

Any tampering with the product, its components, accessories or the existing safety equipment can result in serious, life threatening injuries or even death. A manipulation can lead to a malfunction of the safety devices. The most serious adverse health effects or significant property damage can occur.

- Never tamper with the product its components or accessories.
- Ø Never tamper with safety devices.
- In case of doubt always contact your distributor or the manufacturer.





Risk of accident due to missing or defective safety features

If unauthorized changes are made to safety features, this can result in a high risk of injury.

- **Ø** Before starting work, check all existing safety features for function.
- Never work with damaged safety features.
- Replace defective safety features.
- **10** In case of doubt always contact your distributor or the manufacturer.

4.8.2. List of safety features on the product

Safety feature	Explanation
Switch fixation	The switch fixation made of aluminium with drawstring serves to hold down the switch during operation.
Automatic blocking in case of overload/stall	The drive has a function that shuts off in the event of a stall.

5. Safety

Our Electrical Chain Peelers (battery) are built according to the latest technology and the recognized safety rules and regulations. Nevertheless, dangers to the user or other nearby persons, as well as damage to property values, may arise if the use is improper, easy or incorrect.

The Electrical Chain Peeler (battery) as well as its components and accessories are only to be used if the following conditions are met:

- The use may only be carried out within the scope of the intended use.
- The Electrical Chain Peeler (battery) as well as its components and accessories must be generally, electrically and mechanically in perfect condition.

A DANGER



Warning!

Any faults which may affect safety must be rectified immediately. Until being fully rectified, the Electrical Chain Peeler (battery), including all components and accessories, must not be put into operation.

If you have questions or in case of doubt, always contact your supplier or the manufacturer.

5.1. General safety guidelines

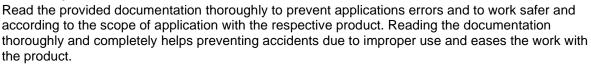
The basic condition for safely handling and a hassle-free operation of the product is the knowledge about the fundamental safety guidelines and safety regulations. This instruction manual contains essential information on how to handle the product, including its components and acessories, safely. The safety guidelines have to be acknowledged and observed by everyone working with the product. These instructions shall be read and implemented in accordance with the relevant standards, workplace health and safety legislation, installation instructions, Codes of Practice and technical connection guideline in force in your country.

- Keep and store Electrical Chain Peelers (battery) away from children. Do not let people, who are not familiar with the product or have not read and understood the instruction manuals, use the device. Electrical Chain Peelers (battery) are dangerous if being used by inexperienced users.
- Maintain the tool with care. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the operation of the tools. If damaged, have the tool repaired before use. Many accidents are caused by poorly maintained tools.
- ✓ Keep your Electrical Chain Peeler (battery) clean. Follow the servicing instructions and the instructions for changing the tools. Keep oil and grease away from the handles.
- Use power tools aw well as components and accessories etc. in accordance with these instructions. Take the working conditions and the work to be performed into account. The use of the Electrical Chain Peeler for purposes other than intended may result in dangerous situations.
- **9** Pipes and other workpieces must be firmly clamped or fixed. Poorly clamped or fixed workpieces may hurt you or affect your safe foothold.
- **Ø** Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp and clean blades do not get stuck as easily and are easier to handle during operation.

NOTE



Read the provided documentation!





All users of the product must thoroughly read and understand the provided documentation prior to use.

A DANGER



Danger due to non-compliance with accident prevention regulations!

In order to be able to use the product safely, the knowledge of the applicable accident prevention regulations in your country is absolutely necessary. Working with the product without the knowledge of the valid accident prevention regulations carries a great risk for irreversible injuries and property damage.

- Germany: Familiarize yourself with the general accident prevention regulations (UVV).
- International: Familiarize yourself with the standards and regulations for accident prevention in your country. Take note of these and act accordingly.

5.2. Duty of care of the operator

The operator is obliged to allow the usage of the product only to people that:

- are familiar with the basic regulations on work safety and accident prevention and are thoroughly instructed in the proper handling of the product, its components and accessories.
- be have read and understood the complete documentation of the product, its components and accessories.
- are sufficiently qualified and authorized to use the product as intended.
- g are fully trained and familiarized with the process of scraping of PE pipes.

Furthermore, the operator must ensure that:

- responsibilities of the staff / user shall be clearly defined with regard to transport, installation, dismantling, commissioning, setting up and adjustment, operation, maintenance and inspection, repair and disassembly.
- **19** the product and its components are used only in accordance with the intended use.
- the product, its components and accessories is used only together with accessories and retrofit parts provided by the manufacturer.
- **10** the product and its components must be in perfect and functional condition.
- the parts of the personal protective equipment necessary for carrying out the work are available and used for the personnel employed.
- **10** the documentation associated with the product and its components is always fully and legibly available on the job site.
- at each change of or ownership, or when loaned to other persons, all documentation must be included and its importance pointed out.
- **10** the general and local regulations for accident prevention and environmental protection are provided and adhered to.
- **g** all safety and danger warnings on the product, its components and accessories are kept in readable condition and renewed if damaged.

Technical condition of the product:

Subsequent requirements are based on the technical condition of the product. Compliance with these requirements must be ensured by the operator.

- The product may only be used as intended.
- **10** The product must be checked for perfect technical condition before each use.
- No unauthorized or arbitrary modifications or manipulations of the product, its components or accessories may be made.
- The full technical documentation must always be kept completely and legibly at the place of use of the product for inspection.

5.3. Duty of care of the user

All persons entrusted with work on the tool have the obligation to:

- familiarize themselves with the basic regulations on work safety and accident prevention before starting to work.
- thoroughly read the entire documentation.
- inform oneself about the functioning of the product, its components and accessories.

5.4. Safety in the work area

- **Ø** Keep your work area clean and well lit. Working in cluttered or dark areas can easily lead to accidents.
- **Ø** Prevent the product from unintentional movement or dropping and assume a secure foothold.
- **Do not work** with the product **in potentially explosive areas** in which flammable liquids, gases or dust is present. Power tools can produce sparks, which can ignite dust or fumes.
- ✓ Keep children and bystanders at distance while operating the product. Distractions can cause you to lose control over the tool.
- **10** Do not allow other people touch the Saddle Drilling Equipment or cables/lines and keep them away from your working place.
- Solution
 Run cables and hydraulic lines neatly to avoid trip accidents.
- Avoid an unnatural posture. Always make sure that you have a safe foothold and stay in balance. This ensures optimum control of the product in unexpected situations.
- According to national and international guidelines, the use of power tools with a supply voltage of 230 V AC or higher (or 110 V AC or higher) in trenches and confined spaces is only permitted if additional security measures are taken. Each electrical device operated in such an environment has to be powered by its own safety isolating transformer or its own insulation protective device.





Risk of tripping by cables/lines (electrical and hydraulic)!

There is a risk of tripping in the work area due to poorly laid or hidden cables.

- Make sure that nobody must step over the lines.
- Install the cables so that there is no risk of tripping.
- Do not squeeze, bend, or otherwise deform the lines/cables.

5.5. General safety guidelines for power tools



The term "power tool" used in the safety guidelines relates to mains-operated power tools (with cord) as well as battery-operated power tools (without cord).

NOTE



Protect the tool from humidity!

All electrical tools must be protected against rain and dripping water.

- If necessary, place a welding tent.
 - Read and make sure you understand all safety guidelines and instructions. Failure to follow the safety guidelines and instructions can lead to electric shock, fire and/or serious injury.
 - Keep these safety guidelines and instructions for future use.

Electrical safety

- The plug of the power tool must fit in the outlet. Never modify the plug in any way. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- Avoid physical contact with earthed/grounded surfaces or objects such as pipes, radiators, stoves and refrigerators. There is an increased risk of electric shock if your body is earthed/grounded.
- **Ø** Keep the product clear of rain and wetness. The penetration of water into a power tool considerably increases the risk of electric shock.
- **10** Do not misuse the cords and lines of the product to carry it, hang it up or pull the plug out of the socket. Keep the cord away from heat, oil, sharp edges and movable machine parts. Damaged or bent cords increase the risk of an electric shock.
- When operating the product outdoors, use extension cords that are suitable and approved for outdoor use. Usage of an extension cord suitable and approved for outdoor use reduces the risk of an electric shock.
- The use of n residual current-operated protective device (RCD) is mandatory when working at outdoor construction sites. Note all directives and technical connection regulations in force in your country. **Always** use a residual current-operated protective device (RCD). Using an RCD reduces the risk of an electric shock.
- In accordance with the workplace health and safety legislation in force in your country for connection and usage of electric devices you must ensure that the tool, any extension cords and RCDs are regularly inspected (tested and tagged) by a licensed electrician or other competent person.
- It is very important that there is a Protective Earthing (PE) conductor which is continuous (i.e. <0.5 Ohms) from the earth terminal of the generator to the earth terminal of the plug on the flexible supply cord of the power tool. If the protective earthing conductor is interrupted or becomes higher in resistance, there is a risk of electric shock.

- The power tool shall only be used on a power circuit with a protective earthing conductor. Otherwise there is a risk of an electric shock.
- If the power tool is used together with a generator, the generator shall be grounded. Otherwise there is a risk of an electric shock.
- **10** Do not use any adapters in combination with earthed/grounded products.

Personal safety

- Stay alert! Watch what you are doing and use common sense when operating a tool. Do not use the product while being tired or under the influence of drugs, alcohol or medication. One moment of inattention while operating the product can cause serious personal injury.
- Remove adjusting tools and wrenches before switching on the device. A tool or wrench getting caught in a rotating part of the power tool can cause serious accidents.
- If dust extractors or chip trapping equipment can be installed, they must be connected and used. The use of these devices can prevent hazards due to dust or flying chips.
- **Ø** Do not have a false sense of security and do not overstep the safety rules for power tools, even if you are familiar with the power tool after many uses. Careless action can lead to serious injuries in a split second.

Power tool usage and care

- **Ø** Do not overload the power tool. Use the appropriate power tool for your application. When using an appropriate power tool you can work better and more safely in its range of capacity.
- **10** Do not use the power tool if the switches are broken. A power tool, which cannot be turned on or off, is dangerous and must be repaired.
- **Ø** Pull out the plug resp. the battery when you do not use the Electrical Chain Peeler or when changing the adapters and attachments. This precaution prevents an unintentional start of the power tool.
- Prevent unintentional starting of the device. Make sure that the power tool is switched off before connecting it to the mains and/or battery or before picking it up/carrying it. It can lead to accidents if you connect the product in a switched-on state to the power supply.
- Only use accessories, particularly extension cords and generators, that are specified/recommended in this instruction manual. The use of any other accessories than the ones mentioned in the documentation can damage the power tool and increases your risk of injury.
- Before each use of the product, the user must visually inspect that the product, its cables and accessories as well as its electrical supply cord to ensure that all parts are free from damage and are correctly installed. Damaged protection facilities and device parts must be repaired or replaced by an authorized service agent.

5.6. Safety instructions for battery packs and chargers

Use and treatment of the battery charger

- © Charge the batteries only with chargers recommended by the manufacturer. A charger suitable for a particular type of battery may present a fire hazard when used with other types of battery
- Follow all charging instructions and never charge the battery or the cordless tool outside the temperature range specified in the operating instructions. Incorrect charging or charging outside the permitted temperature range can destroy the battery and increase the risk of fire.
- Use chargers only at the intended supply voltage.
- **Ø** Pull out the mains plug immediately if the battery charger starts to smoke or flames emerge.
- **Ø** Do not insert objects into the ventilation slots on the battery charger. There is a danger of electric shocks and short circuits.

Usage and treatment of the battery pack

- Use only the appropriate batteries in the power tools. Use of other batteries than specified may cause injury or fire.
- **Ø** Keep the unused battery away from paper clips, coins, keys, nails, screws, or other small metal objects that could bridge the contacts. A short circuit between the battery contacts can cause burns or fire.
- Under abusive conditions, liquid may be ejected from the battery. Avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- **10** Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- Protect battery packs from water and moisture!
- **Ø** Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorised service providers. Please contact your distributor.
- If your power tool has a defect, remove the battery pack.





Danger due to electrostatic charge / discharge!

If metallic objects or tools are to be mounted on on insulating pipes, such as plastic pipes, they must be grounded because the pipe can get statically charged otherwise. Electrostatic discharge can cause sparks that can become a source of ignition or electrical shock.

Ground all metallic objects that you mount on plastic pipes.

5.7. Peronal protective equipment

NOTE



Obligation to use the personal protective equipment!

During transport, assembly, assembly and disassembly of the product, the respective personnel must wear and use the appropriate PPE.

Which parts of the PPE must be used must be evaluated on an individual basis, determined by the operator and announced to the personnel.



The nature and extent of the PPE to be worn must be assessed and determined for the individual case.

The following PPE is recommended when working with this product:



Wear eye protection!

When working with the product, eye protection should always be worn. Flying chips or foreign objects can damage your eyesight.



Wear safety shoes!

Wearing safety shoes protects the feet from falling objects and reduces the risk of slipping.



Cover long hair with hairnet or cap!

The tying of long hair or the wearing of a hair net or a cap prevents the danger of catching by rotating parts.

5.8. Qualification of personnel

Only persons with sufficient knowledge in the field of peeling PE pipes may work with this product. This knowledge may have been gained through several years of professional experience, training, instruction or other training. Persons who do not have sufficient knowledge in this area must be supervised and instructed by a person with appropriate knowledge.

MARNING



Danger due to insufficient personnel qualification

If insufficiently skilled operators work with the product or are in the work area, there is a risk of serious injury or property damage.

- Allow only qualified personnel to work with the product.
- **10** Unqualified personnel must be kept away from the danger area.
- Personnel in training may only work with the product under the supervision of an experienced person.

5.9. Deadlines for recurring checks

Annual

The product should be inspected at least once a year by a service center authorized by the manufacturer.

Upon need

Operability of the mechanism

Each working day

- **Ø** Visual inspection for damage to the components.
- **Ø** Visual inspection of the rollers for rolling resistance, damage and flat spots.
- Visual inspection of the brass rollers for rolling resistance, damage and flat spots.
- Checking the proper functioning of all switches and buttons on the tool.

5.10. Dangers during individual work phases

5.10.1. Dangers during transport and assembly

Transport

During loading and transport, only auxiliary tools such as lifting devices, load suspension devices and transport vehicles may be used which have sufficient carrying capacity and stability. When transporting, observe all mandatory safety measures and, if required, use the appropriate protective equipment.

Installation

The installation of the components may only be carried out by trained personnel who have read and understood all parts of the documentation. The assembly must be performed by at least two people.





Injury from falling parts

The heavy weight of each component can cause serious injury and / or property damage if it falls and hits people or objects.

Assembly and installation of the product must be carried out by at least two persons. That way, one person can secure the tool parts against falling and helps with transport.





Risk of cutting injuries on sharp edges

In case of carelessness or improper use, the very sharp peeling blade can lead to cutting injuries.

- Avoid touching the cutting edge of the peeling blade.
- Pay attention to the sharp edge when handling.
- Wear suitable protective gloves when handling.

A CAUTION



Accidental start of the drive

When installing and removing the tool always make sure that you do not switch on the drive unintentionally. If the drive starts unintentionally, this means that the user is in danger of being entangled.

- **9** Put the rotation selector in the middle position (locked). That way the trigger switch can not be pressed down.
- **Ø** Remove the battery during installation and removal.



Wear suitable protective gloves!

Wear suitable protective gloves during transport and assembly.

5.10.2. Dangers during operation

The operator must have been instructed by the operator in the handling of the tool. Working with the tool without prior instruction is prohibited. The proof obligation lies with the operator.

Only use the tool according to its intended use. Activities that impair safety are to be avoided.





Injury due to improper / unintended operation

Incorrect or unintentional operation of the tool can lead to injury and / or property damage.

- **8** Before using the tool, check that all components are free from damage.
- **Ø** Check all safety devices for damage before operation.
- **Ø** Never operate the tool if it has any damage, protective devices are defective or missing.

5.10.3. Dangers during dismounting

The disassembly of the components may only be carried out by trained personnel who have read and understood all parts of the documentation. The removal must be performed by at least two people.





Injury from falling parts

The heavy weight of each component can cause serious injury and / or property damage if it falls and hits people or objects.

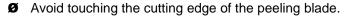
Removal and disassembly and of the tool must be carried out by at least two persons. That way, one person can secure the tool parts against falling and helps with transport.





Risk of cutting injuries on sharp edges

In case of carelessness or improper use, the very sharp peeling blade can lead to cutting injuries.





- Pay attention to the sharp edge when handling.
- Wear suitable protective gloves when handling.

A CAUTION



Accidental start of the drive

When installing and removing the tool always make sure that you do not switch on the drive unintentionally. If the drive starts unintentionally, this means that the user is in danger of being entangled.

- **9** Put the rotation selector in the middle position (locked). That way the trigger switch can not be pressed down.
- Remove the battery during installation and removal.



Wear suitable protective gloves!

Wear suitable protective gloves during transport and assembly.

5.11. Device specific dangers

5.11.1. Dangers due to electric current

A DANGER



Danger to life due to electric shock

Depending on the variant, the battery charger is operated with 230 V AC or 110 V AC. If the supply line or the battery charger itself is damaged or has been tampered with it can lead to life-threatening accidents. It is strictly forbidden to open the battery charger.

- Always check the supply line for damage before using the battery charger.
- In the event of damage to the supply line, the battery charger must not be used before it is professionally repaired.
- **Ø** Repairs to the supply line may only be carried out by the manufacturer.
- Operation on construction sites may only be carried out by means of a power distributor with a residual current circuit breaker in accordance with VDE 0100.
- General as well as nationally and internationally valid safety guidelines and regulations for handling power tools must be followed.



Pull out the mains plug!

If you are not using the tool, disconnect the power plug from the power source.

5.11.2. Risk of entanglement





Danger of entanglement due to turning drive wheel

In the event of carelessness or improper use, the drive wheel can catch objects, jewellery, long hair or clothing as it rotates during operation. This can lead to serious injuries, broken bones or property damage.

- Avoid touching the rotating parts of the tool.
- **1** If necessary, wear a hairnet or tie long hair together.
- Do not wear jewellery.
- 6 Keep foreign objects away from the rotating parts.
- Wear tight-fitting clothing.
- **Ø** Tools with mains connection: disconnect the tool from the power supply before and after work.
- **Ø** Battery powered tools: move the rotation selector switch into its center position and remove the battery.



Cover long hair with hairnet or cap!

The tying of long hair or the wearing of a hair net or a cap prevents the danger of catching by rotating parts.

5.12. Residual risks





Residual risks

Due to the design of the Electrical Chain Peeler (battery), certain residual risks can not be completely excluded. Read the following instructions carefully. This allows you to react faster and safer in case of a problem.

In the event of a blockage, you may not be able to reach/pull out the switch fixation during operation. In such a case grab a handle and hold this hard (against the force of the drive). This prevents the drive from moving further in the working direction. If you apply enough force, you can also pull the chain towards you against the drive direction. That way, in case of a dangerous situation, you can reach the switch fixation.

6. Scope of delivery



Note

The Electrical Chain Peeler (battery) is available in different variants. The scope of delivery differs, depending on the ordered variant.

The given technical information is valid for the standard setup of the tool. Depending on the ordered setup there may be variations.

Errata and technical modifications reserved!

6.1. Electrical Chain Peeler 800-1200 mm (Battery)

4_4200_037	Elect	Enclosed	
	1 ×	Instruction manual	EN282
	1 ×	Assembly plan	
	1 ×	Drive + 2 batteries	1_4200_521
	1 ×	Switch fixation	2_4200_211
	1 ×	Drive unit	2_4200_202
	1 ×	Biasing and peeling unit	2_4200_200
	2 ×	Roller wagon 100 mm	2_4200_223
	5 ×	Roller wagon 200 mm	2_4200_224
	1 ×	Roller wagon 200 mm with counterweight	2_4200_225
	3 ×	Link piece 150 mm	2_2400_005
	2 ×	Link piece 200 mm	2_2400_006
	3 ×	Link piece 250 mm	2_2400_008
	1 ×	Hex key SW4/2.5	1_2904_003
	1 ×	Spare blade M03, wide	2_4201_003
	1 ×	Plastic suitcase	1_2800_067

6.2. Optional extension 1400-1600 mm

4_4200_039	Exter	Extension 1400-1600 mm	
	2 ×	Roller wagon 200 mm	2_4200_224
	1 ×	Link piece 250 mm	2_2400_008
	1 ×	Plastic tool box	1_2800_065

7. Technical data



Note

Further technical data as well as important information can be found in the additionally applicable documents of the suppliers.

7.1. Electrical Chain Peeler 800-1200 mm (Battery)*

4_4200_037	Electrical Ch	nain Peeler 800-1200 mm (Battery)		
General				
Suitable for pipes made of		PE, PE-HD, PE-X, PP		
For pipe dimensions	[mm]	800-1200 (with optional extension 1600)		
For pipe dimensions	IPS	32-48 (with optional extension 63)		
For pipe dimensions	DIPS	30-48 (with optional extension 60)		
Scraping depth	[mm]	0.3 (0.25 to 0.35)		
Electrical data for drive				
Supply voltage for the battery charger	[V]	230*		
Battery voltage	[V]	18		
Mechanical data for drive with torque attachment				
RPM 1nd gear	[min ⁻¹]	Approx. 0-160		
RPM 2nd gear	[min ⁻¹]	Approx. 0-600		
Max. torque 1nd gear	[Nm]	Approx. 170		
Max. torque 2nd gear	[Nm]	Approx. 170		
Dimensions, weights and packaging				
Product dimensions L × W × H	[mm]	Depending on pipe dimension × 370 × 220		
Product weight	[kg]	20.5		
Packaging dimensions L × W × H	[mm]	820 ×560 ×430		
Packaging material		Plastic		
Packaging type		Suitcase		
Packaging weight	[kg]	13.5		
Transport weight	[kg]	34		

The given technical information is valid for the standard setup of the tool. Depending on the ordered setup there may be variations.

^{*} On request, the chargers are also available for 110 V supply voltage.

7.2. Optional extension 1400-1600 mm *

4_4200_039	Extension 1	400-1600 mm		
Dimensions, weights and packaging				
Product dimensions L × W × H	[mm]	Depending on pipe dimension		
Product weight	[kg]	1.8		
Packaging dimensions L × W × H	[mm]	340 ×300 ×130		
Packaging material		Plastic		
Packaging type		Suitcase		
Packaging weight	[kg]	1		
Transport weight	[kg]	2.8		

The given technical information is valid for the standard setup of the tool. Depending on the ordered setup there may be variations.

8. Transport, Installation and removal, storing



Qualification of personnel

The tool may only be transported, installed, removed and stored by persons with relevant professional experience and expertise in using the tool.



Safety

User and operator are responsible. Observe all safety instructions in this instruction manual as well as all valid safety regulations.

8.1. Transport damage

Check the tool for damage immediately after receipt. If damage or abnormalities are present, ideally document them with pictures and contact the manufacturer or your dealer.

8.2. Packaging

The tool is delivered in a plastic suitcase. Keep the suitcase for transport and storage.



Damage to the plastic suitcase

Damage to the plastic suitcase may indicate damage to the tool. If in doubt about the condition of the tool, contact the manufacturer or your dealer.

8.3. Means of transportation

8.3.1. Allowed means of transportation

The tool must be transported by suitable means of transport or carried by at least two persons.

8.3.2. Notes on the tranport



A DANGER

Dangers due to defective lifting gear

The use of damaged lifting gear can lead to life-threatening accidents in case of failure.

- **Ø** Use only suitable and approved lashing and slinging equipment.
- Only use lashing and lifting gear that is completely intact.
- Always carry out a visual inspection of the lashing and slinging equipment before transport. If parts are damaged or bent, they must not be used.

A DANGER



Dangers due to suspended loads

If the tool is e. g. transported floating with a crane, it can lead to uncontrolled movements, such as swinging or commuting in case it is not inadequately secured.

- Mever stay under a hovering load.
- Make sure that there are no loose objects and foreign objects on the device that could fall off during transport.
- Stay out of the working area of the hoist during transport.

8.4. Assembly and installation

The Electrical Chain Peeler must be installed by at least 2 people. This can either be done on the pipe or on a flat, clean surface.





Danger from falling parts

The Electrical Chain Peeler 400-800 mm (battery) consists of many individual components. These have a high weight in combination and pose a danger if they are not sufficiently secured or held during the installation. Falling parts can cause serious injury or property damage.

- Always carry out the installation and removal with at least two persons in order to have sufficient security.
- Do not stand in the work area if parts of the tool are not adequately secured against falling or slipping.

Conditions for the installation site

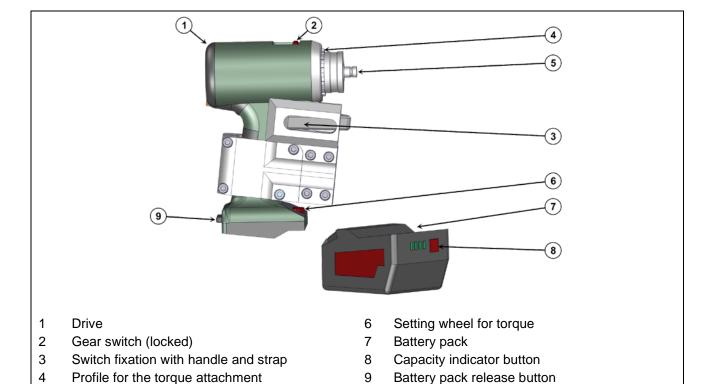
- Make sure you have enough space and good lighting.
- ▼ The pipe must be free of dirt and foreign objects.
- **▼** There must be no moisture near the power cord or power supply.
- ▶ Provide a free escape route in case you lose control of the tool during assembly.
- If necessary, set up a tent to protect the work area and the tool from the effects of the weather, such as strong sunlight, rain or moisture.

8.5. Storage

Store the Electrical Chain Peeler in your transport box, protected from the weather. The temperature should be between 10 and 30 °C with a humidity of not more than 60%.

9. Overview

9.1. Drive



9.2. Drive unit

Seat for the bit

5

2 3 Seat for the drive 1 Pressure element 5 Adjustment knob for the height adjustment of 2 6 Wheel for presetting the clamping fixture the drive wheel Quick adjustment catch 3 7 Lever for clamping fixture 4 Drive wheel

10. Installation

A CAUTION



Danger of cutting

When handling the tool there is a risk of cuts by the peeling blade.

- Wear cut-resistant gloves and long-sleeved clothing.
- Avoid touching the peeling blade with your bare hands.



Qualification of personnel

All persons involved in the assembly and installation must have read and understood this instruction manual and in particular all safety instructions.



Important information about your safety

You are responsible!

All safety instructions in this instruction manual and the generally applicable measures for accident prevention must be adhered to.

Requirement:

- ! The safety instructions are observed.
- ! The outer diameter of the pipe was measured to prevent from peeling the pipe to much (under nominal diameter).
- ! The pipe has been thoroughly cleaned of all dirt.
- ! The pipe surface was cleaned and foreign objects were removed.
- ! The area to be peeled was marked with an approved marking pen.
- ! There is at least a space of 22 cm around the pipe.

10.1. Assembling the chain



Installation

If the roller wagon with counterweight is used, it should be installed on the opposite side of the drive

For the installation the necessary elements of the chain must be connected to each other. To make the job easier, you should only connect the drive when the chain is closed and pre-tensioned on the pipe.

Connecting of the chain links:

- 1. Use the assembly plan to check which chain links you need.
- 2. Connect all necessary elements as shown in the following pictures. Attaching the individual elements is only possible when inserting them at a certain angle. This prevents an unintentional falling apart of the assembled chain.



ü The chain is assembled.

10.2. Preparing the drive unit

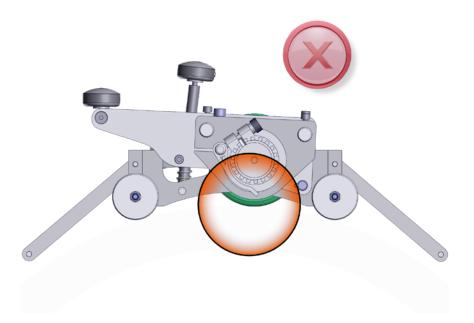
Preconditions:

- ! The drive unit is cleaned from pollution.
- ! The drive wheel is free from foreign objects and pollution.

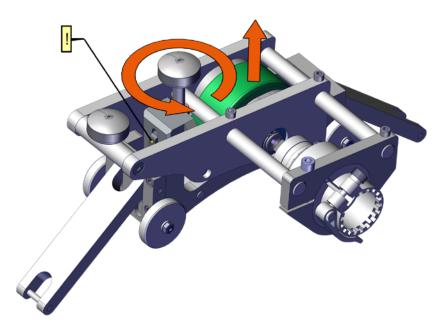
The drive unit must be inspected and prepared for trouble-free operation and easy clamping. When the drive unit is lowered, the drive wheel touches the pipe surface during installation. This must be prevented by raising the drive wheel.

Checking and preparation of the drive unit:

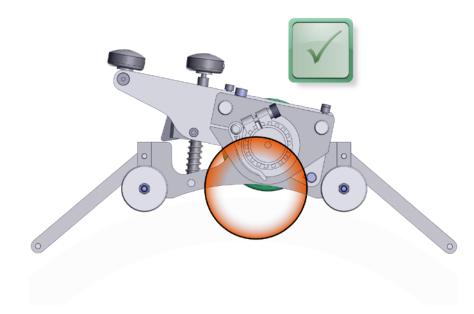
- 1. Check the drive unit.
- 2. If the drive wheel is lowered too much (first picture), you must bring it up.



3. Bring it up by turning the adjustment knob. You can also press the quick adjustment catch and pull the pressure element upwards when it is up far enough.



4. Move the drive wheel to a position as shown.



ü Drive unit is prepared.

10.3. Connecting the chain on the pipe

A CAUTION



Danger of cutting

When handling the tool there is a risk of cuts by the peeling blade.

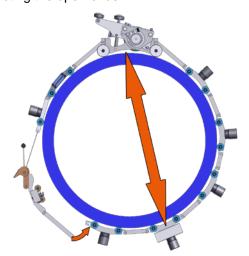
- **Ø** Wear cut-resistant gloves and long-sleeved clothing.
- Avoid touching the peeling blade with your bare hands.



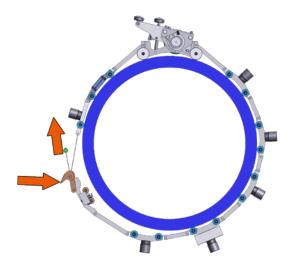
Installation

The Electrical Chain Peeler must be installed by at least 2 people.

- 1. Put the chain peeler onto the pipe with 2 persons.
- 2. Connect the drive unit to the biasing and peeling unit as well as to the rest of the chain.
- 3. Make sure that the roller wagon with counterweight is positioned on the opposite side of the drive unit when the chain is closed.
- 4. Close the chain by connecting the open ends.



- 5. Then tension the chain with the strap ratchet.
- 6. When tensioning, make sure that you tension the chain only so much that you can still align it easily without scratching the pipe with the peeling blade.



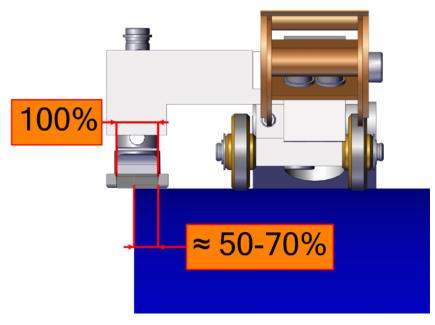
10.4. Aligning the Electrical Chain Peeler

Preconditions:

- ! The chain is still sufficiently loose to be able to perform the alignment without effort.
- ! The pipe surface was cleaned and foreign objects were removed.
- ! The area to be peeled was marked.

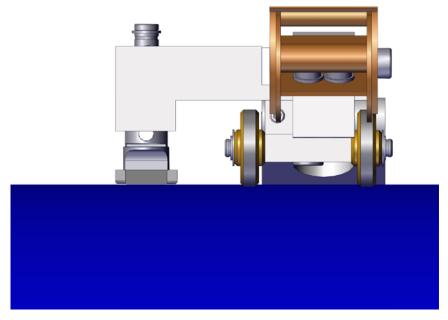
Alignment when peeling pipe ends:

Position the chain peeler in such a way that the peeling blade rests between approximately 50 to 70 % on the pipe. That ensures that during the first revolution no area of the pipe remains unpeeled.



Alignment whenm peeling saddle installation areas:

1. Position the chain peeler in such a way that the peeling blade rests approximately 50 to 70% on the outer boundary of the marking of the saddle installation area.

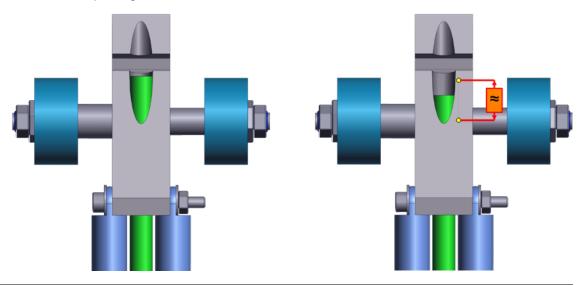


ü The electrical chain peeler is aligned.

10.5. Tensioning the chain

To tension the chain, you must observe the tension indicator on the spring wagon. This must be within a range when the chain is tensioned. There is no general setting here because the chain can also be used on different pipe dimensions.

- 1. Actuate the strap ratchet and observe the tension indicator.
- 2. In the picture on the left you can see the indicator position when the chain is not tensioned. The right picture shows the range in which the indicator must be located when the chain is tensioned for peeling.



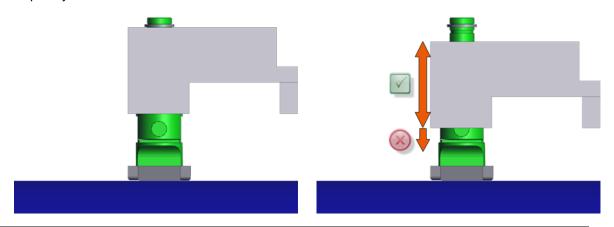


Chain tension

If you notice that the chain is too loose or too tight to pull around the pipe with normal force, loosen the chain tension with the strap ratchet and re-tighten the chain.

10.5.1. Note the indicator on the blade holder

The blade holder features an indicator pin. When the tensioning force is increased it will protrude on the upper side. The indicator should, with correct chain tension, emerge upwards, but not completely.





Attention!

Always make sure that the blade holder is not fully compressed. Only then the spring in the blade holder will push the peeler blade forcefully enough against the pipe surface to peel flat spots.

10.6. Do a test rotation

Pull the chain manually 1 or 2 times around the pipe to check if the peel has a suitable width and to check if the tension is correct. If necessary, correct the feed or tension force of the chain.

11. Feed adjustment

NOTE



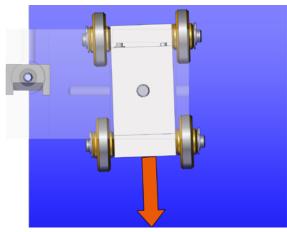
Adjusting the feed to the pipe dimension!

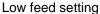
If you are peeling changing pipe dimensions, it may be necessary to adjust the feed to obtain a sufficient chip width. If the feed is not adjusted, it may happen that the tool rotates on the spot or that parts of the pipe remain unpeeled because more than the full blade width per revolution is peeled.

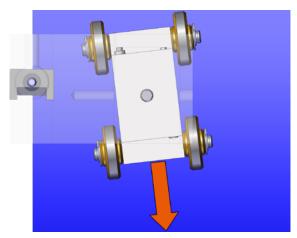
- The peel width should be between 50 to 70 % of the blade width.
- **Ø** Before the peeling process, especially when changing pipe dimensions, check whether the peel width is within this range. If it is out of this range, the feed must be adjusted.
- The bigger the pipe dimension of the pipe to be peeled, the less feed is necessary to maintain a peel width of about 50 to 70 % of the blade width.

Explanation:

The amount of feed means how far the tool moves per revolution in the axial direction ("corkscrew").







High feed setting

- **Ø** The feed setting determines the peel width.
- If the peel width deviates from 50 to 70 % of the peeling blade width, the feed should be readjusted.
- For example, if the feed is set for a 500 mm pipe, this setting will also work on a 450 mm or 560 mm pipe. If, however, the pipe size to be peeled deviates more from the pipe size to which the feed has been adjusted to, a new adjustment must be made.

11.1. Determining the amount of feed

Procedure:

- 1. To determine the current feed setting pull the chain 2-3 times by hand, without drive, around the pipe.
- 2. The peel width should be between 50 to 70 % of the peeling blade width.
- 3. If the peel width deviates from this, you must either increase the feed (peel becomes wider) or reduce the feed (peel becomes narrower).

11.2. Reducing the feed (reducing the peel width)

NOTE



Feed adjustment

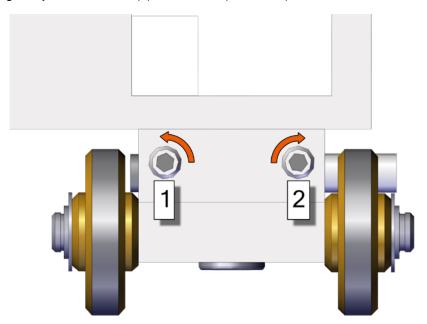
- Adjust the feed only when the chain is tensioned.
- Adjust the feed only in 1/4 turn increments and check the effect. Never turn more than 1/4 turn in one adjustment step.

Preconditions:

- ! The allen key SW2.5 is available.
- ! The chain is installed and tensioned.
- ! The drive wheel does not touch the pipe surface.

Procedure:

- 1. Turn the left adjustment screw (1) for 1/4 turn (counter-clockwise).
- 2. Turn the right adjustment screw (2) for 1/4 turn (clockwise).



- 3. Then check the tightness of the adjustment screw (1). If necessary, tighten it slightly to maintain the setting.
- 4. Then determine the feed again as described above
- 5. If the adjustment is insufficient, repeat steps 1 to 3.
 - **ü** This concludes the procedure for decreasing the feed.

11.3. Increase the feed (widen peel width)

NOTE



Feed adjustment

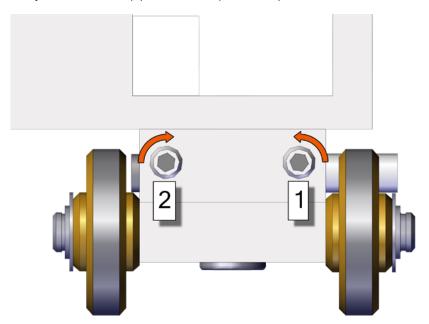
- Adjust the feed only when the chain is tensioned.
- Adjust the feed only in 1/4 turn increments and check the effect. Never turn more than 1/4 turn in one adjustment step.

Preconditions:

- ! The allen key SW2.5 is available.
- ! The chain is installed and tensioned.
- ! The drive wheel does not touch the pipe surface.

Procedure:

- 1. Turn the right adjustment screw (1) for 1/4 turn (counter-clockwise).
- 2. Turn the left adjustment screw (2) for 1/4 turn (clockwise).



- 3. Then check the tightness of the adjustment screw (1). If necessary, tighten it slightly to maintain the setting.
- 4. Then determine the feed again as described above
- 5. If the adjustment is insufficient, repeat steps 1 to 3.
 - **ü** This concludes the procedure for increasing the feed.

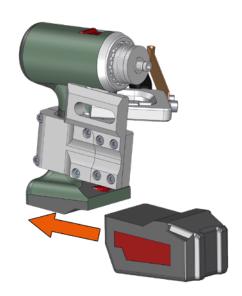
12. Preparing the drive

Requirement:

- ! The battery is charged.
- ! The chain peeler is installer and aligned.
- ! The drive wheel does not contact the pipe surface.

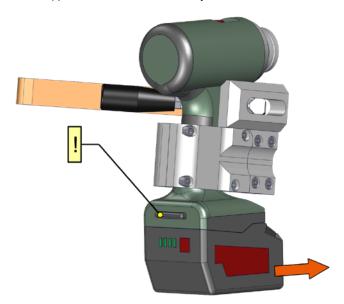
12.1. Connecting the battery

1. Slide the battery in until it clicks into place.



12.2. Removing the battery

1. Press and hold the button (!) then remove the battery in the direction of the arrow.



12.3. Setting the gear

NOTE

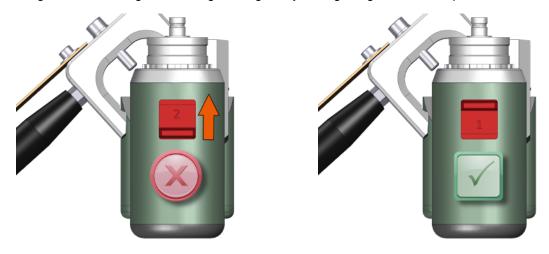


Never work with the drive in 2nd gear!

The electrical chain peeler is designed for working with the drive in 1st gear. The drive is set to 1st gear in the factory and blocked accordingly.

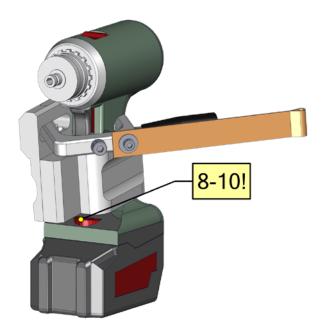
For controlled work, the drive must be used in 1st gear. When you start in 2nd gear, the tool moves too fast around the pipe. You can no longer work in a controlled manner.

- 1. Check the gear setting.
- 2. If 2nd gear is set, change the setting to 1st gear by sliding the gear switch to position 1.



12.4. Setting the torque

- 1. Turn the torque setting wheel to between 8 and 10.
- ▼ If you notice during operation that the electrical chain peeler stops, turn the torque setting wheel higher.



12.5. Installing the drive

NOTE



The drive must be pushed in completely!

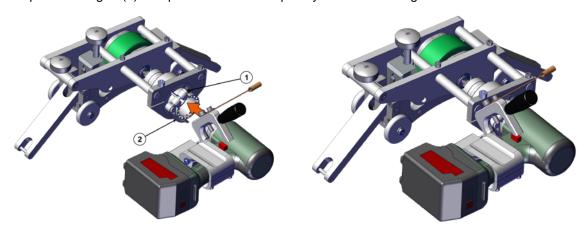
To ensure reliable power transmission, the drive must be mounted correctly. Only when fully inserted, the force can be transmitted reliably.

Requirement:

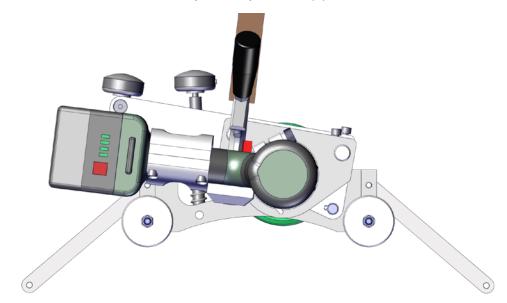
- ! The chain peeler is tensioned.
- ! The drive is prepared.

Installation

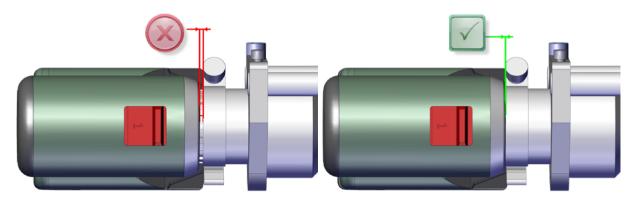
- 1. Adjust the knurled nut (1) so that the tensioning force is sufficient to properly hold the drive.
- 2. Open the tongue (2) and push the drive completely into the toothing.



3. Make sure that the drive is sufficiently far away from the pipe surface when it is installed.



4. There must be no gap between the drive and the receiver when the drive is clamped. Only then is it mounted correctly. If you still see a gap, loosen the clamping and fully insert the drive before re-clamping it.



NOTE



If you have problems with fully inserting the drive:

If you have problems trying to insert the drive fully, turn the drive wheel slightly forward or backward with your hand. This turns the bit and the drive will fit into the receiver.

13. Peeling procedure

Preconditions

- ! The chain is properly tensioned.
- ! The battery is charged resp. has enough charge.
- ! The drive is in 1st gear.
- ! The torque setting wheel is set to between 8 and 10.
- ! The rotation selector switch is set to clockwise rotation.
- ! A manual test run without connected drive was carried out to determine the peel width and test the tensioning force.

MARNING



Familiarize with the procedures and the operation!

Before starting the peeling procedure, you must be familiar with the operation of the electrical chain peeler and know what to do in the event of breakdowns or emergencies. Failure to comply with these notes and advice can lead to severe injuries or damage to goods.

☞ Familiarize yourself with all procedures and operations, as well as emergency procedures, before turning on the electrical chain peeler.

NOTE



Read the safety guidelines!

Before working with this chapter and putting the tool into operation, read and understand the general and specific safety instructions in all chapters of this manual.

NOTE



Before working check for damages!

Before starting to work, check the electrical chain peeler and its accessories for visible damage and proper function. If there is any damage, the electrical chain peeler must not be used until the damage has been properly repaired. In case of doubt always contact the manufacturer or your distributor.

↑ WARNING



Behavior in the event of a feed disturbance

In the event of a blockage, you may not be able to reach/pull out the switch fixation during operation.

In such a case grab a handle and hold it hard (against the force of the drive). If you apply sufficient force, the safety stop of the drive becomes active. This will then stop the tool.

NOTE



Never leave the electrical scraper chain unattended!

The user has to monitor the electrical chain peeler throughout the entire work process.

Only in this way can it be ensured that the user can react quickly in the event of a problem.

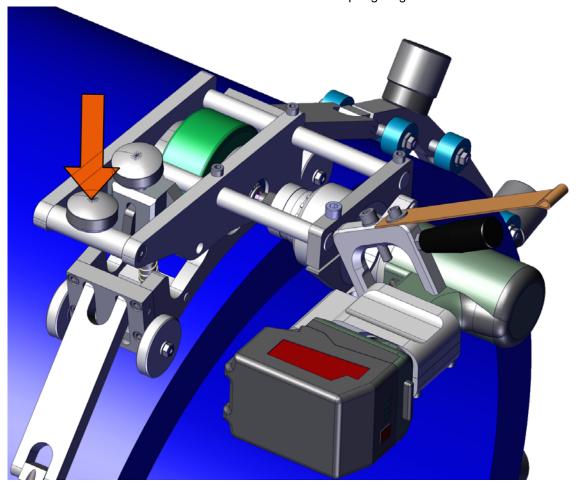
13.1. Pressing down the pressure element

Preconditions

- ! The drive is correctly connected to the chain peeler.
- ! The drive has not been switched on yet.

Pressing down the pressure element:

- 1. Press the pressure element down as shown in the picture.
- 2. When you feel resistance, keep pushing. The drive wheel then touches the pipe surface. The chain is also tensioned a little. Note the indicator on the spring wagon.



13.2. Switching the drive on and staring the peeling procedure

Preconditions

- ! All preparations according to the previous chapters have been made.
- ! The pressure element is pressed down, the drive wheel is touching the pipe surface.

Applying the switch fixation

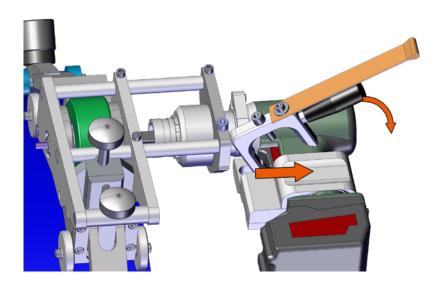
NOTE



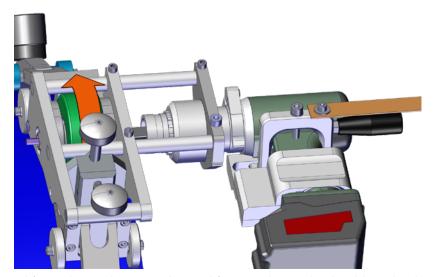
Drive starts immediately!

If you activate the on/off switch with the switch fixation, the electric chain peeler starts immediately.

1. Use the black handle on the movable part of the switch fixation to pull it towards the on/off switch and then pull it downwards. The drive starts to run.



2. The drive continues to run until you switch it off again by releasing the switch fixation.

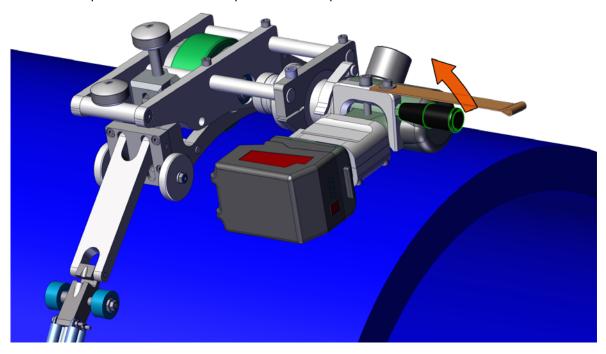


- 3. Watch the peel formation and prevent the peel from getting under the drive wheel.
- 4. Wait until the electrical chain peeler gets to the end of the marked area.

13.3. Finishing the peeling procedure

13.3.1. Stopping the electrical chain scraper

- 1. To stop the electrical chain peeler, grab the handle or the strap on the switch fixation and pull it upwards.
- 1. This will deperess the on/off switch pressed and stop the drive.



13.3.2. Stopping the Electric Chain Peeler in an emergency

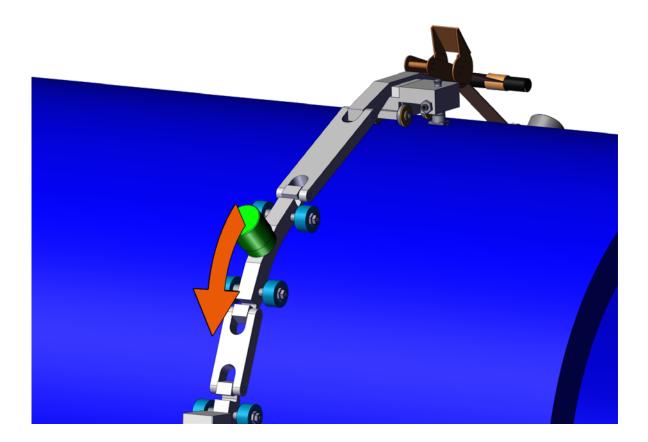
NOTE



Emergency stop

In an emergency or in the event of an unexpected situation that requires the immediate stopping of the Electrical Chain Peeler, you can stop it at any time without removing the switch fixation.

In the event of a blockage, you may not be able to reach/pull out the switch fixation during operation. In such a case grab a handle and hold this hard (against the force of the drive). This prevents the drive from moving further in the working direction. If you apply enough force, you can also pull the chain towards you against the drive direction. That way, in case of a dangerous situation, you can reach the switch fixation.



14. Dismounting and disassembly of the Electrical Chain Peeler



Dismounting

The Electrical Chain Peeler must be removed by at least 2 people.

The removal of the Electrical Chain Peeler can be done in reverse order as the installation.

15. Battery charger

Preconditions

! You have read all safety guidelines in chapter 5.

NOTE



Read the safety guidelines

Before using the charger, carefully read all safety instructions in this document and all accompanying documents.

NOTE



Mains operation!

Make sure that the rated voltage of the product and all its components match the voltage level provided by the mains supply.

A CAUTION



Do not use in areas with high metal dust pollution / EX areas!

The active cooling can cause metal dust, which enters the charger's housing, to cause damage to the fan or cause sparking. This represents a source of ignition.

- The charger must not be used in areas with high levels of metal dust.
- The charger must not be used in potentially explosive (EX) environments.

The charger has a power indicator and a warning indicator. These two indicator lights let you read the status of the connected battery pack.

15.1. Charging the battery pack

After you plug in the power plug, the charger performs a self-test. The power indicator and the warning indicator light up one after another for approx. 1 second. The built-in fan runs for about 5 seconds.

To charge the battery pack, connect the charger to mains voltage and slide on the battery pack. Notice the indicator lights.

15.2. Power indicator (lights up green)

Symbol	Status of the indicator lights	Meaning		
— —	Flashes	The battery pack is being charged.		
100%	Lit up constantly	The battery pack is charged. A trickle charge is applied.		

15.3. Warning indicator (lights up red)

Symbol	Status of the indicator lights	Meaning		
X	Flashes	No charge The battery pack is defective and must be removed.		
		The battery pack is not seated correctly.		
	Lit up constantly	No charge		
		The temperature of the battery pack is too high or too low.		
		Only when the temperature is between 0 °C and 50 °C, the battery pack can be charged.		

16. Troubleshooting



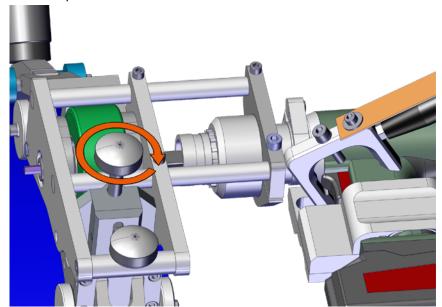
The drive wheel is turning but the chain peeler does not move



- The pipe surface is not dry.
- The drive wheel is not dry.
- **Ø** The tensioning of the chain is insufficient.



- Immediately switch off the drive.
- Make sure that the pipe surface is clean and dry.
- Make sure that the drive wheel is clean and dry.
- Observe the tensioning force indicator on the spring wagon and tighten the chain slightly or turn the aluminium knob 1-2 turns to increase the tensioning force in the chain. Try this several times until the problem is solved. Always switch off the drive if the electric chain peeler does not move or stop.

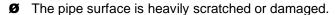




The chain peeler stops again and again during operation



- **Ø** The tensioning of the chain is insufficient.
- The roller wagon with the counterweight was not installed opposite to the drive.



- The pipe surface is partially dirty or not dry.
- Observe the tensioning force indicator on the spring wagon and tighten the chain slightly or turn the aluminium knob 1-2 turns to increase the tensioning force in the chain.



- Always mount the roller wagon with the counterweight as exactly as possible opposite to the drive unit in the chain.
- Check the pipe surface for damages and clean resp. dry it if necessary.

17. Maintenance, repair and cleaning



Important information about your safety

You are responsible!

All safety instructions in this instruction manual and the generally applicable measures for accident prevention must be adhered to.

The product, its components and accessories must be handled with care and maintained regularly in order to achieve the best possible work result.

NOTE



Maintenance work

All maintenance beyond the removal of simple mechanical disturbances, such as for example disassembling the product into its components, may only be performed by the manufacturer or an authorized service center within the first 24 months of purchase. If you are unsure whether you are allowed to perform a particular activity, please contact your dealer or the manufacturer. For safety reasons, even after the expiry of the 24 months, we strongly advise that repairs and maintenance be carried out only by the manufacturer or an authorized service station.

Tampering with components of the product without prior consultation of your dealer or the manufacturer may compromise safety and is therefore considered improper use. In all correspondence, please provide the serial number (S/N) as shown on the type plate of the tool.

17.1. Safety measures



Remove the battery pack!

Before you start any maintenance or cleaning work, always remove the battery pack.

17.2. Qualification of personnel



Maintenance and repair

Only personnel with user and specialist knowledge in handling the product may service this according to the specifications.



Cleaning

The personnel responsible for the cleaning must at least have read and understood the safety instructions. Furthermore, it is only necessary that the generally valid procedures and safety regulations are observed when handling power tools.

17.3. Maintenance by laymen

Laymen should not perform any work on the product without the supervision of experienced people or professionals. Under supervision, laymen may carry out the following maintenance work on the product:

- Remove dirt and grime with a soft cloth or cotton bud.
- Apply a silicone oil film to the moving parts.
- General cleaning work

17.4. Maintenance by specialists

The manufacturer and service stations approved by the manufacturer are able to carry out all necessary maintenance and repair work that will bring your product to a technically sound and safe condition. The following activities may only be carried out by the manufacturer or an authorized service station:

- Elimination of mechanical or electrical malfunctions of the drive that require the drive or drive unit to be opened.
- Replacement of components that require disassembly of the product.

17.5. Maintenance cycles for safe operation

Please note that the product is a technically demanding machine for field application. In accordance with the product-specific applicable standards and regulations in your country (eg DGUV V3), this must be regularly checked and maintained. The maintenance interval is 12 months, with heavy use shorter intervals are recommended.

NOTE



Damage due to poor maintenance

If maintenance and service is omitted and maintenance intervals are exceeded, damage to the product or other property damage may result from product use.

Regular cleaning, checks and maintenance of the maintenance cycle can avoid this.

17.5.1. Cyclical maintenance activities



Important information about your safety

You are responsible!

All safety instructions in this instruction manual and the generally applicable measures for accident prevention must be adhered to.



Instructions for components of the product or external suppliers

Read the entire documentation. That's the only way you can reliably carry out your maintenance work.

The following activities are intended to maintain the proper and safe condition of the product. The stated intervals must be observed.

If defects in the product or parts of the product are detected during the execution of the activities, they must be rectified before reuse. Until the defects have been eliminated, the product must be taken out of service.

The staff responsible for carrying out the activities ensures that all activities have been completed successfully.

Action	Interval
Cleaning the product after completion of the work.	Each working day
Maintenance by the manufacturer or an authorized service station	Annual

17.6. Measures after maintenance or servicing

After maintenance or servicing, be sure to inspect all safety features of the product and to ensure that the product functions properly and safely. Do not work with the product without prior checking.

17.7. Cleaning

NOTE



Damage due to incorrect cleaning

Use a damp cloth for cleaning. Do not use any aggressive cleaners and avoid the penetration of cleaning fluid into the drive or the mechanics.

18. Maintenance and service by the customer service

The maintenance and the related checks are important for your safety and the continuous working reliability and safety of the product.

Should the product, its components or accessories fail despite the great care taken in manufacturing and testing it, the necessary repairs should only be carried out by an after-sales service centre authorised by the manufacturer.

Have this product serviced only by a qualified person authorized by the manufacturer and only with original spare parts. This ensures that the safety of the product is maintained.

During maintenance, the product will be upgraded to the current technical standard of our devices and you get a 3-month guarantee on function for the maintained tool, excluding wearing parts.

18.1. Addresses of service stations

Always contact your dealer or the manufacturer of the product.

18.2. Repackaging before transport

If the product is to be transported after use, it must be packed again in the packaging (boxes, suitcases) provided. This ensures that the product is best protected against transport damage.

19. Decommissioning, Disassemble, Disposal

The products, its components and accessories must be disposed of in an environment-friendly way sorted by materials. For products with hydraulic drive: Make sure that hydraulic oil and other lubricants are disposed of properly.

19.1. Environment-friendly disposal



EU countries only: Do not dispose of electric devices in the household waste.

According to the European directive 2002/96/EC for Waste Electrical and Electronic Equipment (WEEE) and its implementation into national legislation, electric devices which are no longer serviceable/usable must be collected separately and be recycled in an environment-friendly manner.

20. Composition table

1		Drive unit
2		Biasing and peeling unit
3		Roller wagon 100 mm
4		Roller wagon 200 mm
5		Roller wagon 200 mm with counterweight
6		Link piece 150 mm
7		Link piece 200 mm
8	*\ Only with optional extension	Link piece 250 mm

^{*)} Only with optional extension

			No. / Nr. (1)	No. / Nr. (2)	No. / Nr. (3)	No. / Nr. (4)	No. / Nr. (5)	No. / Nr. (6)	No. / Nr. (7)	No. / Nr. (8)
				/ (L)						F
Ø in mm	Ø IPS	Ø DIPS			100 mm	200 mm	200 mm +	150 mm	200 mm	250 mm
710	28		1	1	2	1		2		
	30		1	1	1	1	1	2		
800	32	30	1	1		2	1		2	
	34		1	1	2	1	1	3		
900	36		1	1		3	1	3		
		36	1	1		3	1	1		2
1000			1	1		3	1			3
	42		1	1	2	2	1		2	2
		42	1	1	2	3	1	3	2	
1200	48		1	1		5	1	3	2	
		48	1	1		5	1	1	1	3
	54		1	1	2	4	1	2		4
1400			1	1		6	1	2	2	2
		54	1	1		6	1	1	1	4
		60	1	1	1	6	1	1	2	4
1600	63		1	1		7	1	1	2	4



If the roller wagon with counterweight is used, it should be installed on the opposite side of the drive unit.



Declaration of conformity 21.

in accordance with the EEC machine directive 2006/42/EEC of 17th May 2006, appendix II A.

We hereby certify that the following described product in its conception, construction and design brought by us in circulation is in accordance with all the relevant essential health and safety requirements of EC machinery directive, as amended, and the national laws and regulations adopting this directive.

This declaration loses its validity if the product is modified without out our consent.

PF-Schweißtechnologie GmbH Manufacturer's name:

+49-6631-9652-0 Tel: E-Mail: Karl-Bröger-Str.10 info@pfs-gmbh.com DE-36304 Alsfeld / Germany Web: www.pfs-gmbh.com

Object of declaration: Electrical Chain Peeler 800-1200 mm (Battery)

Optional extension 1400-1600 mm

The product described above is in conformity with the requirements of the following documents.

Classification: D = Directive, H = Harmonised standard, o = Others

Document	Description	Edition	CI.
2006/42/EEC	Machine directive	2006	D
2014/35/EU	Low-voltage directive	2014	D
2011/65/EU	Restriction of use of certain hazardous substances (RoHS)	2011	D
EN 60335-1:2012/AC:2014	Household and similar electrical appliances - Safety - Part 1: General requirements	2012	Н
EN 60745-1:2009+A11:2010	Hand-held motor-operated electric tools - Safety - Part 1: General requirements	2009	Н
EN 60745-2-1:2010	and-held motor-operated electric tools - Safety - Part 2-1: Particular requirements for drills and impact drills	2010	Н
EN 60745-2-2:2010	Hand-held motor-operated electric tools - Safety - Part 2-2: Particular requirements for screwdrivers and impact wrenches	2010	Н
DVS 2208	Welding of thermoplastics – Machines and devices for []	2007-03	О
DVS 2207-1	Welding of thermoplastics - Heated tool welding of pipes, pipeline components and sheets made of PE	2005-09	0
DVS 2207-11	Welding thermoplastic materials - Heated element welding of pipes, piping parts and panels made of PP	2008-08	Ο

Achim Spychalski-Merle

CEO

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DE-36304 Alsfeld/Germany

Alsfeld, 20.08.2019 (Name, function, address) (Place and date of issue) (Signature or equivalent authorised by issuer)





General

Read complete manual!

Observe fitting manufacturer's installation guide!

Follow national and international directives!



Scraping

Remove dirt from the pipe! Mark welding area! Use rotational scraper tools only!



Cleaning

Wipe around the pipe!
Use approved cleaning agent!
Use lint-free cloths!



Marking

Do not touch the cleaned welding areas! Mark insertion depth of fitting! Use approved markers!



Alignment

Use proper alignment tools! Avoid mechanical stress on pipes and fitting! Wait for cooling before pressurising!

PF-Schweißtechnologie GmbH

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