

Instruction Manual

V5-AM-S

Multi Tool

Battery-operated Tool for Crimping, Cutting and Punching



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Serial No.

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Manual
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Content

1	General Information	3
2	General Safety Information	5
3	Product Description	8
4	Technical Data	13
5	Commissioning.....	15
6	Operation	17
7	Trouble-shooting.....	22
8	Maintenance and Service	23
9	Disposal.....	24
10	Declaration of Conformity	28

Thank you for placing your trust in us by purchasing this tool.

1 General Information

We hereby confirm that the tool described in this instruction manual complies with the basic safety and health requirements pursuant to the EC Machinery Directive 2006/42/EC, the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU relating to electromagnetic compatibility.

Keep this instruction manual in a place that all users of the tool are familiar with and can access easily. Read this manual carefully before using, maintaining, repairing or disposing of the tool. Make sure that you clearly understand the instructions and symbols explained in this manual or attached to any tools.

You can prevent accidents by adhering to the following basic safety advice pursuant to the EC Machinery Directive 2006/42/EC and the regulations for hand-operated tools. In any case inform yourself about and comply with the accident prevention regulations applicable in your country.

Do not remove existing labels and stickers, especially those containing legally required information.

Upon receiving the tool, make sure that the packaging is intact, and the tool did not suffer any transportation damage. In case of damage, please contact HOLGER CLASEN's customer service at +49 40 511 28-0. Keep the packaging.

If operated correctly and if the required service intervals are adhered to, we grant a warranty of 24 months beginning as of the day of delivery unless legal regulations require other warranties.

Symbols used:



WARNING!



Danger of hand injuries



Please read instruction manual



Please wear protective goggles



Please wear protective shoes



Please wear protective clothes.



Don't dispose of in residual waste

Warranty:

2-year warranty for proper use in accordance with the annual maintenance intervals that have been carried out by the Holger Clasen Technik-Service-Center. We reserve the right to rework the product at any time.

Label:



Serial number: Head

2 General Safety Information

WARNING

Danger due to overheating, breakage or electric shock of the battery.

The tool, the battery and the charger are matched components.

- ▶ This tool may only be operated with a suitable rechargeable battery.
- ▶ Charge the battery with the appropriate charger.
- ▶ Only use the original battery and charger.

Charge the battery in accordance with the instructions.

- ▶ Connect the charger to a power source with suitable power specifications.
- ▶ Do not use a DC or motor-driven generator.
- ▶ Unplug the charger after charging is complete.
- ▶ Do not use the charger in the rain.

Pay attention to the temperature of the battery, the charger and the environment.

- ▶ Do not charge the battery at temperatures below 0° or above +40° C.

Ensure sufficient ventilation of the battery during the charging process.

- ▶ Do not cover the battery and charger during charging.

Do not short-circuit the contact surfaces of the battery.

Failure to do so may result in bursting of the battery and leakage of hazardous materials.

- ▶ Secure the contact surfaces of the battery with the cover provided for this purpose.
- ▶ Do not store the battery without the cover together with metal parts such as nails, screws, etc.

Do not place the battery in a fire.

Failure to do so may result in bursting of the battery and leakage of hazardous materials.

Hydraulic fluid under pressure.

Escaping fluid under pressure can cause severe injury or death.

- ▶ If injure, seek medical attention immediately.

Danger due to electric shock.

The tool is not insulated in contact with electrically charged parts.

- ▶ Never work live strands / cables!
- ▶ When using the device on or near live wires, wear suitable personal protective equipment
- ▶ Do not touch the power plug or the battery with wet hands.

Exposed Work Area.

Danger of hand injury.

- ▶ Never reach into the running tool.

Influence by electromagnetic waves.

The functionality of pacemakers can be influenced by electromagnetic waves emitted.

- ▶ Keep the tool at least 15 cm or more away from the pacemaker.

Risk of injury to the hand.

Prevent the tool from starting up unintentionally

- ▶ Always move the blade to the starting position after use or before changing parts and remove the battery.
- ▶ Keep your fingers away from the trigger when transporting the tool.
- ▶ Secure the trigger.

Danger due to inhalation of dust.

Depending on work environment dust hazardous to health may be generated during machining.

- ▶ Wear a protective mask during dusty operation.

Danger of eye injuries

Material can fly around.

- ▶ Wear protective goggles. Normal goggles do not provide sufficient protection.

Danger to persons in the vicinity due to breakage.

During operation, overload/material fatigue can cause damage to the head. Parts flying around can cause injuries.

- ▶ Do not point the head of the tool at persons in your environment during operation.

Failure to observe the following instructions may result in property damage or accidents:

Use the tool within the scope of its intended use.

Do not overload the tool. Overloading can lead to blocking, excessive heat generation and ignition.

Keep handles and contact surfaces dry, clean and oil-free. Slippery surfaces reduce tool control and can lead to accidents in unexpected situations.

Refrain from any working method that could endanger safety. Only use attachments and accessories for the work intended for them.

Do not make any modifications to the tool. Ensure a fatigue-free working position.

Remain attentive when working with high concentration.

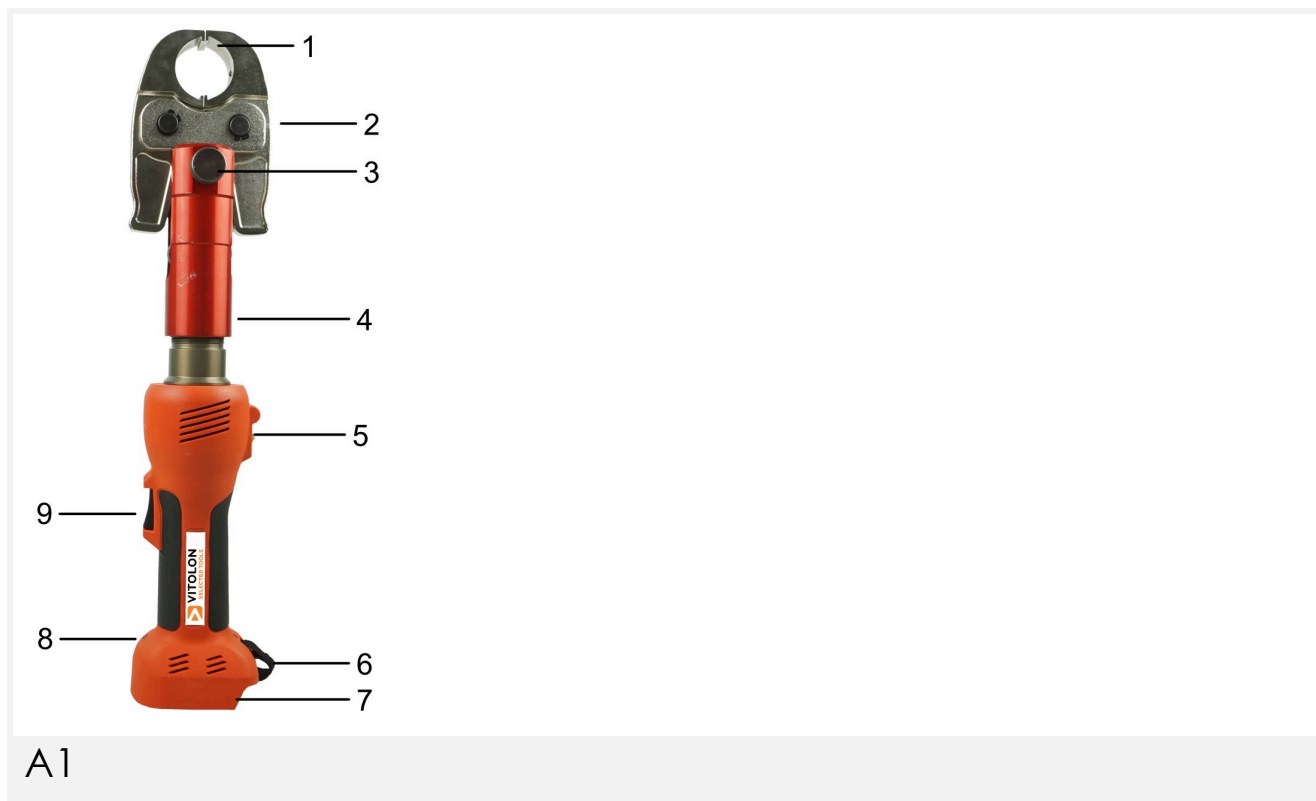
Do not operate the tool if you are in poor physical condition.

Do not operate the tool under the influence of alcohol.

When using the device on or near live wires, wear suitable personal protective equipment.

Do not touch the power plug or the battery with wet hands.

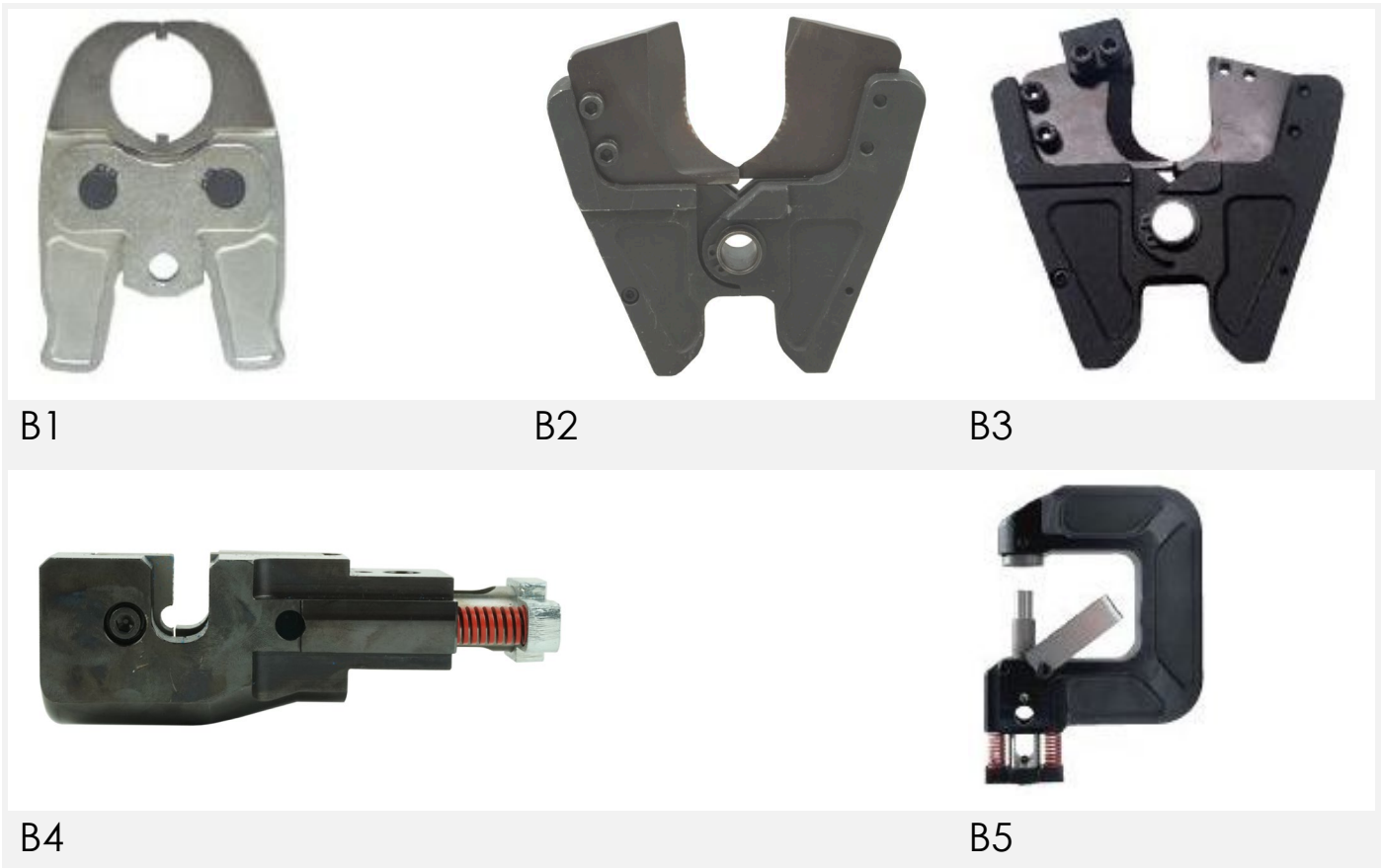
3 Product Description



A1: Description

- 1 Crimping Die Holder
- 2 Crimping Head Attachment
- 3 Safety Bolt
- 4 Fork Holder for Attachments, rotatable
- 5 Return Button
- 6 Lash
- 7 Chuck for Accumulator
- 8 LED Function Control
- 9 Release Button

Attachments, battery and charger are not included.



B1: Crimping Head Attachment for narrow C-shaped Crimping Dies (CS) 505820

B2: Cutting Head Attachment Cu/Al 505819/22

B3: Cutting Head Attachment Al/St 505819/23

B4: Bolt Cutting Head Attachment 505821

B5: Punching Head Attachment 505825

3.1 Intended Use

This Battery-operated hydraulic tool has been designed for crimping, cutting, bolt cutting or punching according to technical data (vitolon.com) and used attachments:

Crimping Head Attachment for narrow C-shaped Dies (CS): Crimping of connectors and cable lugs Cu and Al DIN /non-DIN with narrow C-shaped crimping dies (type CS).

Cutting Head Attachment for Cu/Al: Cutting of Cu and Al cable as well as Cu and Al energy cable.

Cutting Head Attachment for ACSR: Cutting overhead utility lines.

Punching Head Attachment: Punches holes up to Ø 12.5 mm.

Bolt Cutting Attachment: Cuts threaded bolts up to Ø 3/8" (9.525 mm).

For other applications, please contact HOLGER CLASEN. The tool has been designed to be connected to an accumulator Makita, 18 V. Although this tool has been designed according to the state-of-the-art and recognized safety requirements, its use may constitute a potential threat to the life and limbs of its user or third parties or damage the tool or other material assets. Use or application for purposes other than those intended by the manufacturer will be considered improper. HOLGER CLASEN will not be liable for damage resulting from improper use. The operator works at his own risk.

3.2 Expected Misuse

Do not retract the tool without inserted crimping dies.

This will cause damage and possibly break the head.

This tool is not suitable for cutting fine/very fine stranded conductors, this will cause the blades to jam.

3.3 Qualification

This tool may only be used by qualified personnel who have read this safety advice and instruction manual.

3.4 Operator Protection



Danger due to chips flying around.

Wear protective goggles.

Standard glasses do not provide sufficient protection and are no proper substitution for safety eyewear.



Danger of drawing in of clothes and hair.

Wear protective clothes.

Loose or baggy clothes increase the risk of catching or winding on moving parts.

- Wear tight-fitting work clothing.
- Do not wear long hair open. Wear it well covered.
- Do not wear rings, chains or other jewellery.



Risk of crushing/sliding.

Wear protective shoes.

Make sure to stand firmly.

3.5 Workplace

Do not use the tool in environments where there is a risk of fire or explosion. Keep your workplace clean.

Keep children and unauthorized person away from your work environment. Ensure that there is sufficient lighting at the workplace.

Before switching on the tool, make sure that no one is endangered by the starting tool. Protect the tool from moisture, water, extreme heat / cold, chemical solutions and gases. Do not use the tool, the battery and the charger in the rain or in a wet environment or a wet environment. Do not charge the battery there either.

Protect the battery tool from falls or impacts.

3.6 Temperature Range

If the tool is colder than -5°C , store it for at least one hour temperature of $+10$ to $+25^{\circ}\text{C}$ for at least one hour to warm up the tool to room to warm up the tool to room temperature again.

3.7 Transport and Storage

Ensure dry storage to protect the tool from rust.

Clean the tool before / after use and before storage.

Secure the contact surfaces of the battery with the cover provided.

If the tool is transported to another factory department or location, make sure that the tool and/or accessories are not damaged. Pack the tool accordingly.

Store the tool properly when not in use.

Store the tool in a place inaccessible to unauthorized persons.

Do not store the tool and battery in a place where the temperature may rise to $+40^{\circ}\text{C}$ or more (in a metal box, in a car in summer, etc.). Overheating may cause damage, smoke generation or ignition.

⚠ Due to the high energy density of rechargeable batteries, there is a higher risk potential, especially when shipping used rechargeable batteries.

One of the greatest risk factors when transporting rechargeable batteries or battery-powered devices is the danger of short circuits if the battery terminals meet other rechargeable batteries, metal objects or other conductive material.

If the battery is inserted in the tool, the battery terminals are secured.

If they are stored separately or shipped individually, secure storage must be ensured. A possible short circuit and damage to the connection terminals must be prevented. For this purpose, the battery terminals must be secured with a non-conductive material (e.g. adhesive tape) or the contact protection cap. Batteries must be adequately protected against movement.

On the Makita website you will find recommendations for sending in lithium-ion batteries:

https://www.makita.uk.com/data/pam/public/content-pages/support/battery-transportation/mb_36_shipping_lithium_ion_batteries.pdf

Special protective measures must be taken when shipping in airplanes or batteries over 100 Wh.

Notice IATA Packing instruction 965 Part 2 for lithium-ion-batteries. If package/battery is damaged, batteries must be quarantined, inspected and repacked.

Attention: Following the IATA Packing instructions the batteries are delivered on 30 % charge level. Please completely charge the battery before usage with the recommended battery charger.

Follow the Makita charger operating instructions (DC18RC):

<https://www.makita.uk.com/user-manuals>

4 Technical Data

Item	V5-AM-S
Force	60 kN
Stroke	30 mm
Battery Voltage	DC 18 V Li-Ion Makita-kompatibel
Weight*	1.9 kg
Dimensions* L x B x H	500 x 80 x 120 mm
Head	180° rotatable
Item No. Set	78003100

* without battery and attachment

Scope of Delivery:

Tool with transportation case

Attachments, battery and charger have to be ordered separately.

Crimping Head Attachment

Item: 505820

Item No.: 78003110

Weight: 1.5 kg

Crimping Dies: Narrow C-shaped (CS)

Narrow C-shaped crimping dies (CS) can only be used in conjunction with this holder.

Cutting Head Attachment Cu/Al

Item: 505819/22

Cutting Ø: max. 32 mm

Item No.: 78003120

Weight: 1.0 kg

Cutting Head Attachment ACSR

Item: 505819/23

Cutting Ø: max. 28 mm

Item No.: 78003130

Weight: 1.0 kg

Bolt Cutting Head Attachment

Item: 505821

Cutting Ø: max. 3/8" (9.525 mm)

Item No. 78003140

Weight: 1.5 g

Punching Head Attachment

Item: 505825

Punching Range:

Ø 8.5 mm / 10.5 mm / 12.5 mm

Item No.: 78003150

Weight: 2.4 kg

5 Commissioning

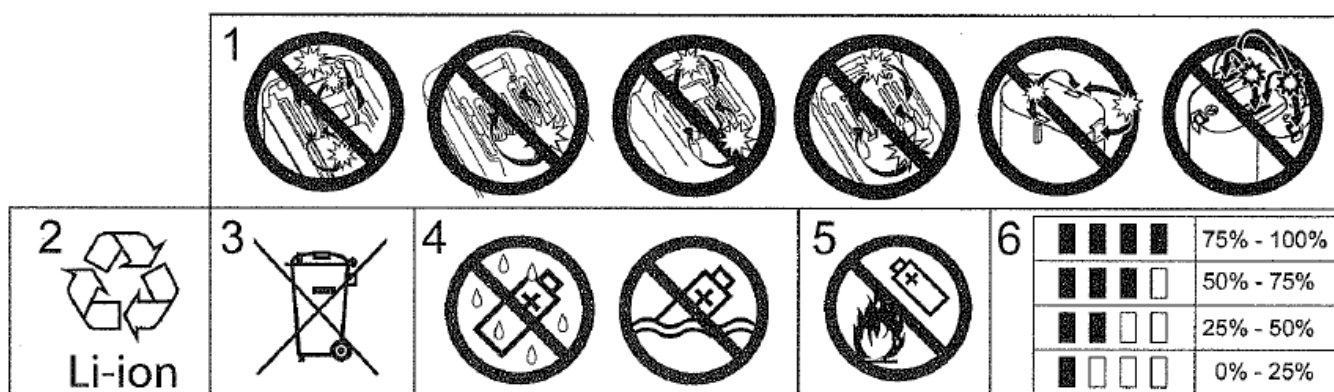


Fully charge the battery before using it for the first time.
Make sure that the accumulator is charged before each use.
The LEDs indicate the battery capacity.
To do this, press the test button on the battery.
Reload if necessary.




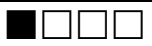
Observe the operating instructions for the Makita charger (DC18RC):

<https://www.makita.de/bedienungsanleitungen.html>

The following information is placed on the battery:



1. Do not short-circuit the battery
2. Always recycle used batteries.
3. Do not dispose of used batteries in household waste.
4. Do not expose the battery to water or rain
5. Do not throw the battery into fire
6. Battery charge level indicator:

	75 % - 100 %
	50 % - 75 %
	25 % - 50 %
	0 % - 25 %

Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

6 Operation

WARNING

Exposed Work Area.

Danger of hand injury.

- ▶ Never reach into the running tool.

This tool is not suitable for cutting fine/very fine stranded conductors, this will cause the blades to jam.

Overheating of the motor is possible after continuous operation.
Allow the tool to cool down in good time for a few minutes.

6.1.LED-Workplace Illumination

WARNING

Very bright light source.

Danger due to damage to the eyes during prolonged eye contact.

- ▶ Do not look directly into the LED.



B1: Switch on LED

Press the forward button (9).

The LED (8) switches on.

It lights up until the button is released.

6.2. Inserting / Removing the Battery

Press the test button on the battery to indicate the battery capacity.

Inserting:

Push the battery firmly into the battery holder of the tool.

The locking button must engage.

Check that the battery is firmly engaged.

Removing:

Press the locking button.

Hold the locking button pressed.

Pull the battery out of the tool.

6.3. Inserting / Removing Attachments

Inserting:

Slide the attachment into the guides of the fork.

Lock the attachment by inserting and turning the safety bolt a quarter turn (3). Check that the attachment is firmly locked in place.

Removing:

Unlock the attachment by turning a quarter turn and pulling the lock (3). The attachment is released. Pull the attachment out of the fork.

Check the head and the control buttons for function and damage. If there is obvious damage, do not put it into operation.

6.4. Starting/Stopping

Press the forward switch (9) to start.

The advance can be interrupted by releasing the advance switch, the piston stops at the desired position.

Keep the forward flow switch pressed until the maximum force is reached. The overflow valve triggers. The piston automatically moves to the starting position.

The piston can be returned manually using the return switch (5).

6.5. Crimping with Crimping Head Attachment

Assemble the crimping head attachment.

Select the correct crimping dies for the connector.

Insert the crimping dies into the tool in pairs.

Hold the connector material between the inserted crimping dies.

Advance the piston until the connector material is held by the crimping dies. Insert the cable into the connector material.

Hold the head at an angle of 90° to the material to be crimped.

Keep the forward switch (9) pressed until the maximum pressure is reached. The pressure relief valve stops the pressure build-up when the maximum pressure is reached.

Check that the crimping dies are fully closed.

Only then is the crimping process fully completed.

If possible, use a measuring gauge to check the crimping.

The piston automatically returns to the starting position.

6.6. Cutting with Cutting Head Attachment/ Bolt Cutting Head Attachment

Assemble the cutting attachment.

Position the material to be cut.

NOTICE

Failure to comply with the following recommendation will result in damage and possibly breakage of the blades.

Hold the head at an angle of 90° to the material to be cut.

Press the forward switch (9) to cut the material. The tool stops after reaching the maximum force and the cutting blade automatically returns to the starting position.

You can interrupt the return movement by releasing the forward switch; the cutting blade stops at the desired position.

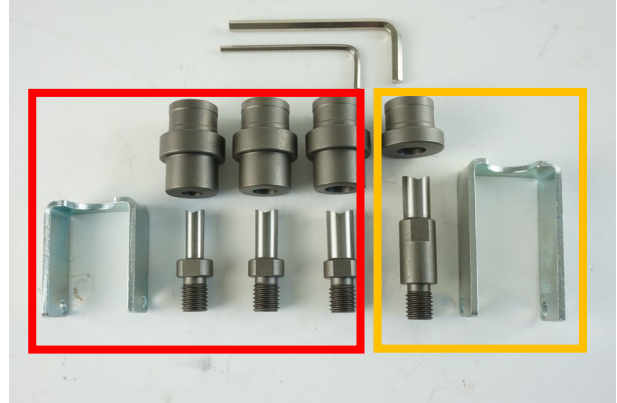
You can move the piston to the starting position by pressing the return switch (5).

6.7. Punching

Assemble the punching attachment.

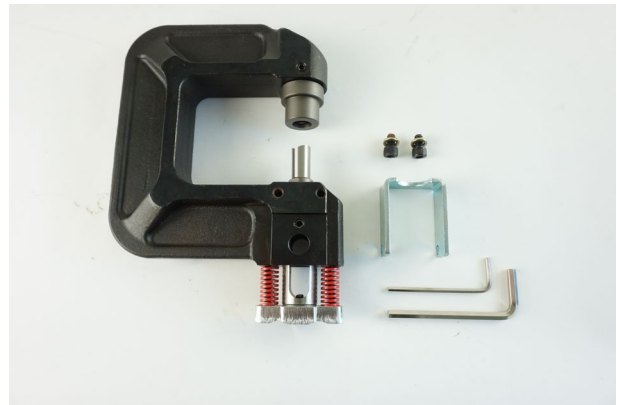
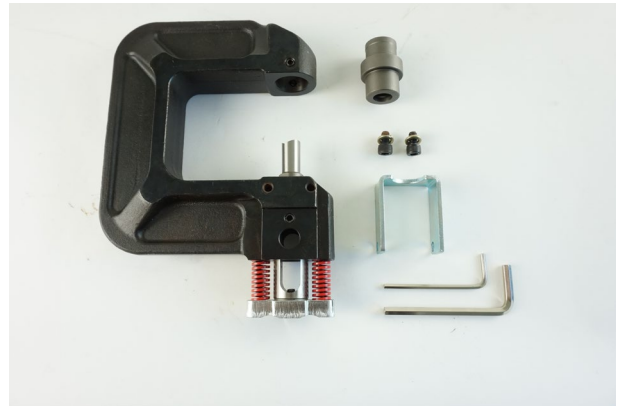
Select the desired punching insert.

The spacer must match the punching insert (see photo).



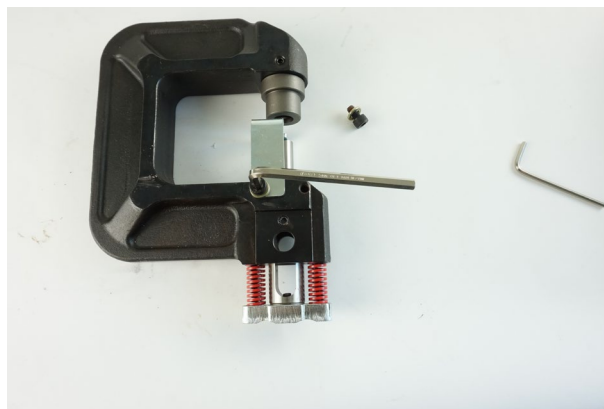
Insert the die and punch into the holders as shown in the photos.

Secure the die on the right and left using the hexagon key supplied.



Assemble the spacer to the punching head using the two screws and the appropriate hex key.

Note the position of the cut-out. It must point outwards.



Position the material to be punched between the punch and die on the spacer.





Press the forward switch (9) to punch.

The tool stops after reaching the maximum force and the piston automatically returns to starting position.

You can interrupt the return movement by releasing the forward switch; the piston stops at the desired position.

You can move the piston to the starting position by pressing the return switch (5).

6.8. LED-Function Display

	The tool is fully operational
	Battery empty - it must be recharged Battery faulty - it must be replaced
	Tool overheated - let cool down
	AFTER reaching the maximum force - ok BEFORE reaching the maximum force - error of the memory, to the manufacturer for verification.

7 Troubleshooting

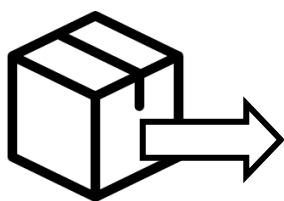
If the tool is colder than -5°C , store it for at least one hour in a room with a temperature of $+10$ to $+25^{\circ}\text{C}$, in order to remove the tool to room temperature again.

Error	Cause	Solution
The tool does not work.	The battery is not charged.	Recharge the battery.
	The battery is not inserted correctly.	Insert the battery correctly.
	The contacts between the battery and the tool are dirty.	Clean the contacts.
	Fault in the hydraulic system (e.g. air)/valves.	Have the manufacturer inspect the tool.
The attachments do not move to starting position	The head is dirty.	Remove chips and metal left on the movable parts.
	Wear of the return spring.	Have the manufacturer inspect the tool.
	Defect hydraulic system.	Have the manufacturer inspect the tool.
Material will not be cut.	Wrong application.	Check the application area.
	The material to be cut is excessively cold.*	Heat up the material to be cut.

* At temperatures below 10°C , the cutting properties of electrical conductors change. It is possible that cuts are not possible even if they are within the range of intended use.

8 Maintenance and Service

Task	Period	Maintenance by
Clean and grease movable parts. ► Use machine care oil Not authorised: chemicals, water or wet clothes	Daily	User
Inspection for damage and defects	Daily	User
Maintenance: ▪ Tool ▪ Operating pressure ▪ Hydraulic oil ▪ Blades/attachments	Every 12 months (approx. 10.000 work cycles)	HOLGER CLASEN

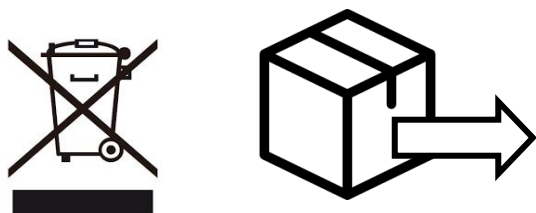


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NOTICE

Only use the hydraulic oil SHELL TELLUS T-15 or OEM-Öl used by us. The use of any other hydraulic oil may damage the tool or affect functionality.

9 Disposal



HOLGER CLASEN GmbH & Co. KG
 Alsterdorfer Straße 228
 22297 Hamburg, Germany
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holger-clasen.de

Do not dispose of the tool as a unit in residual waste.
 Tool components can cause environmental damage!

Dispose of the tool in accordance with the scope of the European WEEE (2012/19/EU) and RoHS directives (2011/65/EU). Rechargeable batteries must be disposed of in accordance with the Battery Directive (2023/1542/EU).

Improper disposal is punishable under the Environmental Liability Act!

In accordance with § 19 ElektroG, HOLGER CLASEN offers the following options for returning old appliances:

1. send in the old appliance with clear notification for disposal to the following drop-off address: **HOLGER CLASEN GmbH & Co. KG, Alsterdorfer Straße 228, 22297 Hamburg, Germany.**
2. personal delivery of the old appliance to the above address.
3. chargeable commissioning of HOLGER CLASEN GmbH & Co. KG to collect the old appliance. The end user is responsible for the proper packaging of the old appliance.

The owner of the waste equipment is responsible for the disposal of personal data in physical or digital form prior to handover.

The owner of the old appliance is responsible for the non-destructive separation or appropriate packaging of old batteries and accumulators in accordance with Section 10 (1) ElektroG, unless they are enclosed by the old appliance.

The battery, the circuit boards and other components must be disposed of separately in accordance with the environmental standards in force in the European Union or in your country. Send the tool to HOLGER CLASEN for disposal.

Do not dispose of battery pack together with household waste material! In observance of the European Directive 2006/66/EC, on batteries and accumulators and waste batteries and accumulators and the implementation in accordance with national laws, batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

10 Declaration of Conformity

V5-AM-S*

Multi-Tool
Battery-operated Tool for Crimping, Cutting and Punching

(D) CE-* - Konformitätserklärung. Wir erklären in alleiniger Verantwortlichkeit, dass dieses Produkt mit den folgenden Normen oder normativen Dokumenten übereinstimmt:

IEC 55014-1:2021, IEC 55014-2:2021, gemäß den Bestimmungen der Richtlinien 2006/42/EG, 2014/30/EU, 2011/65/EU

(EN) CE-* - Declaration of conformity. We declare under our sole responsibility that this product is in conformity with the following standards or normative documents:

IEC 55014-1:2021, IEC 55014-2:2021, in accordance with the regulations of directives 2006/42/EG, 2014/30/EU, 2011/65/EU

Hamburg, 22.06.2023



Lennart Clasen, CEO