

**Battery powered
hydraulic punching tool**

**„AS-6M“
Art. 217600**



**60
kN**

**700
bar**

360°



**LI-ION
18V
2Ah**



**Sensor
technik**

Video 217600



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1. Technical data

Area of application:	Punching of different holes in plastic, glas fibre, aluminium and steel.
Extent of supply:	Extent of supply: 1 hydraulic punch: 1 connecting rod 3/8-24 UNF (art. 217660), 1 connecting rod 3/4-16 UNF (art. 217662), 1 adapter (art. 217664), 1 spacer bushing (art. 217666), 1 transport case.
Pressing force::	55 kN
Oil type:	ISO class viscosity 15
Safety:	The tool is fitted with a safety value that has been set at the factory.
Structure:	The working head can be rotated by 180° to make it easier to adapt to the operation to be carried out. The model Art. 217600 does not protect the operator when working on cables that carry power.
Guarantee:	2 year guarantee if used for the purpose it is intended.

2. Area of work/Performance characteristics




- Pressing force: 55 kN
- Working pressure: 700 bar
- Battery charge time: 60 minutes
- Battery voltage: Li-Ion 18 V
- Battery capacity: 2 Ah
- Weight: 3.64 kg
- Weight of set: 4.7 kg

Features:

- 6 tonnes of pressing force for maximum performance
- Motor stop. The feed is stopped immediately the operating switch is released.
No post-travel of the piston
- 180 degree rotating crimping head. Can thus be mounted even in places that are difficult to access
- Manual return enables shorter process cycles and saves battery capacity
- The manual return enables the operator to bring the piston back to the starting point in the event of a faulty pressing.
- After the pressing is completed, the device operates in idle.
(If the compression is not completed, manual return of the piston on the return operation button is "very perceptibly" more difficult)
- The two button operation ensures logical, simple and quick single-handed operation.
- The tool is supplied with 1 Li-Ion battery 18 V, 2 Ah and a quick charger.

2.1. Sensortechnology

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred:

-  Light is green: Pressing completed as standard, motor stopped
-  Light is orange: Battery voltage not sufficient
-  Light is red: Pressing interrupted before completed

The device also has 1 white LED designed to illuminate the working area.

Introduction:

Before using the tool for the first time, ensure you read these operating instructions.

All current-carrying parts in the working area are to be switched to without power.

Otherwise, protective precautions for working in the vicinity of power-carrying parts must be made. (DIN EN 50110)

Do not use the tool if you are tired or under the influence of medication, drugs or alcohol.

Take account of the valid accident prevention and safety regulations and, please, only use the tool for the intended purpose.

Only persons aged 16 and above who are trained in electrical devices may use this tool to process connection material.

The operating instructions must always be carried with the tool.

The operating instructions must always have been read and understood by the user.

The operator must ensure that this takes place.

3. Operating instructions

- The tool is not insulated!
- Select the required punching insert.
- The punching process can be interrupted at any time by releasing the operating switch.
- No power-carrying parts may be punched.
- Damage may be caused to the tool if it is heated to too high a level
- Do not use under water or when it is raining.

Description of the electro-hydraulic punching tool

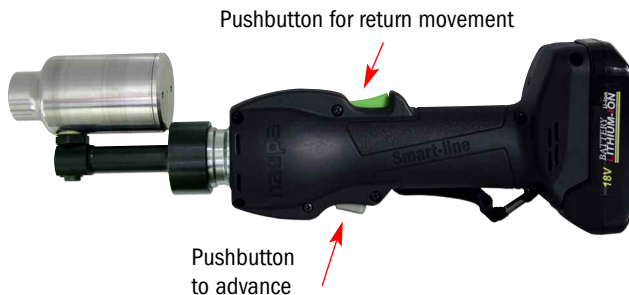
Description of components

The electro-hydraulic punching tool is a hand-held tool

Short description of the fundamental features of the tool

The punching head can be rotated infinitely about the transverse axis. This enables installation even in very difficult to access areas.

All functions of our tools can be controlled using two operating buttons. This ensures simple handling.



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Description of the operating functions

A punching process is triggered by activating the operating switch. The operating switch must be held down continuously during the punching process. The feed must be interrupted manually after the punching process is completed. It stops immediately after releasing the operating switch. A single push of the return button returns the piston back to the starting position.

Description of the punching process

The punching process is identified by the pulling of the plunger into the die. The plate to be processed is located between the plunger and the die. In order to start a punching process, it is necessary to screw the plunger close to the plate you wish to make a hole in such a way that there is contact between the plunger and the plate.

After triggering the operating switch, the plunger is pulled into the plate.

A punching process is completed when the plunger enters the die. At this point, the operating switch must be released in order to prevent damage to the plunger or die.

Then the hole can be pulled out of the plate on the side of the tool. The plunger and die must be dismantled and the plate remains removed.

Notes on the use and operation of the tool

First, prepare the corresponding punching set (plunger and die).

Only original HAUPA components may be used since third-party components may cause material failure which may result in people in the area being hurt.

Determine the precise location for the hole. Use the HAUPA twist drill and make a hole that is slightly larger than the tension bolt. Make sure that the piston has been returned fully.

When drilling and punching, wear goggles.

Do not make holes with the thread not screwed fully into place.

When the thread of the plunger, for example, cannot be fully screwed to the tension bolt, the structure must be dismantled and the spacer sleeve removed. **Make sure that the cutting side of the plunger faces the plate.**

The plunger must be screwed into place in such a way that it already has light contact with the plate. When mounting the bolt for square holes, only the side of the tension bolt adapted to the inner diameter of the cylinder may be screwed in.

If you do not do so, the piston is screwed to the bolt and cannot be pulled back. This incorrect operation will damage the piston and it will need to be replaced.

Ensure that no one is standing in front or in the immediate vicinity of the plunger when punching since these persons could be injured by flying splinters in the event of material failure.

During the punching process, do not put your hands into the plunger area since this may lead to crushing and grazes.

The tool may not be operated after a hole is made/deactivation, since this could result in the plunger and the die coming into contact. This may result in a breaking of the holes and people may be injured by flying splinters.

The punching process can be interrupted at any time by releasing the operating switch.

Before changing the punching inserts, always remove the battery pack from the unit to ensure it cannot be activated accidentally.

Only those materials covered by proper use may be punched.

If other materials are to be punched, it is necessary to consult the factory before doing so.

No power-carrying parts may be punched.

Before starting work, ensure that the area you are working in and the plates to be punched are free of power (e.g. switching cabinet).

4. Removing and inserting the battery

Hold the tool firmly and press the battery release button to remove the battery.

ATTENTION:

Never short-circuit the battery.

Inserting the battery

Insert the battery until it clicks into place. Make sure the poles are facing the right way



Charging

Before using the tool, charge the battery as follows: Connect the cable of the charger to a socket (AC).

Inserting the battery into the charger

Insert the battery firmly, as shown in here until it touches the bottom of the charging compartment.

ATTENTION:

If the battery is inserted incorrectly, it will not only not be charged, it may also damage the charger (e.g. by bending the terminals/short-circuiting).

Charging

When you insert a battery into the charger, the battery is charged and the charging light.

When the battery is fully charged, the charging indicator shows 100% and a beep.

Remove the battery immediately and disconnect the charger from the mains.



Attention!

Please remove the battery during transport and after usage – because of avoiding deep discharge!

Li-ion Battery & Charger Instruction



Li-ion Batterie

Voltage	18 V
Weight	0,380 kg
Length	120 mm
Width	70 mm
Height	50 mm
Capacity(Ah)	2 Ah
Charge time	60 min.

Charge(for Li-ion)

Voltage	110V / 220V
Weight	0,430 kg
Length	175 mm
Width	90 mm
Height	80 mm
Feature	Digitaler Monitor Auto-Inductions laden








Charging only for HAUPA batteries.






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Li-Ion Battery Manual Instruction

Panel Description:

1. Connect power shows , comes a beeping,
2. Fully charged, it shows  and comes beeping every 3 seconds.
3. Unusual working == Too low voltage shows  and comes a beeping every second.
4. Unusual working == Unusual temperature shows , and comes a beeping every second.
5. The voltage is not rising after 10 minus charged. The battery is charged incompletely. The battery is faulty, showing  and coming beeping every 2 seconds by a second.

Specification:

1. The input power is external power DC24V 3A.
2. The charge voltage is 24V 2.5A.
3. When plug in the power, the panel shows  and comes a beeping.
4. Uninstall the battery, the panel shows  and twinkles every second.
5. Detect the battery voltage first and shows battery capacity rate when install battery.
6. When battery charged completed, the panel shows  and comes beeping every 3 seconds.
7. When the voltage is too low, the panel shows  and comes a beeping every second.
8. When the temperature is too high, the panel shows  and comes a beeping every second.
9. The maximum charge time is 70 minutes. After 70 minutes, the charger will stop charging regardless the battery is charged completed.
10. The full charged voltage for 18V Li-Ion battery is ($5 \times 4.3 = 21.5\text{v}$); the voltage for 14.4V Li-Ion is ($4 \times 4.3 = 17.2\text{v}$) (reference valve). The battery is coming with a protective plate which will stop charging automatically when charged completely.
11. The lowest battery voltage for 18V Li-Ion battery is ($2.9 \times 5 = 14.5\text{v}$); and the 14.4v is ($2.9 \times 4 = 11.6\text{v}$).
12. It will stop charge when the battery temperature is higher than 65 degree centigrade.
13. The usual temperature for battery is between -20° to 65° centigrade when a fan is applied. The fan working voltage is 12V.
14. Under 90% battery capacity will carry in adding per 5%. Over 90% battery capacity will carry in adding per 1%.

5. Care and maintenance

Cleaning

- Careful cleaning of the tool, in particular, the moving parts contributes towards a longer useful life. Remember that dust, sand, environmental influences, in particular a high salt index, and dirt in general are extremely damaging to hydraulic tools.
- Particular care should be taken when cleaning the pump drive piston and the piston. The tiniest of contaminations may scratch the walls of the cylinder and damage the leak-proof seals. For the correct cleaning of the piston, we recommend extending the piston and then cleaning it with a high-quality, non-corrosive solution.

Power switch

Check to see whether the switch on the machine automatically pops out again when you release it.

Storage

To prevent damage to the tool as a result of bumps, dust etc. you should if possible store the tools in the original packaging.

Guarantee:

2 year guarantee when used as intended and with the annual maintenance intervals maintained and work carried out by a HAUPA service centre.

We reserve the right to modify the product.

This tool is a hand-held tool that may not be mounted. It may not be used in a stationary situation.

Sparks may be generated when operating electrical motors. These may, in turn, set light to combustibles or explosive materials.

The electro-hydraulic punching tool may not be used in heavy rain or under water.

Processing notes

The hand-held cordless hole punch is designed for punching a variety of holes in plastic, fibreglass, aluminium and steel.

It may be operated using the following HAUPA punching inserts:

round, rectangular, square and special shape forms

Special shape forms for electronic connections are made up of a plunger, die and tension bolt

The standard, punching inserts and special shape forms can be used to make holes in plastic, fibreglass, aluminium and steel. Extra VA punches and tension bolts can be used to make holes in the materials named above and also in stainless steels.

Maintenance note

The electro-hydraulic punching tool is to be cleaned after each use and you should ensure that it is dry before storing. In order to ensure perfect functionality of the tool and to prevent potential functional faults, the punching tool should be sent for maintenance or servicing at the end of every year of use. The bolt connection on the punching head and the moving components of the punching head should be oiled lightly.

The device must be cleaned after each use and stored in a dry place. Both the battery pack and the charger must be protected from damp and foreign objects.

Within the framework of this maintenance work, worn parts are replaced and safety-relevant components are checked and, if necessary, replaced to be on the safe side. This action is carried out for your safety and prevents downtime due to material wear.

Take good care of your power tools. Check whether all moving parts of the tool function properly and do not jam. Make sure no parts are broken or damaged to such an extent that the functionality of the power tool is affected.

Have damaged parts repaired by a qualified specialist or by our HAUPA service centre before using the power tool.

Tool seal

The seal may not be damaged. If it is damaged the guarantee is voided. Please only use the HAUPA service centre for the checking of your tool and for any necessary repairs.

Faults:

Oil loss

Send to the HAUPA service centre.

Do not open!

Very slow feed of the piston:

Air in the hydraulic system.

Hold the head upright and simultaneously operate both operating switches for 10 seconds in neutral. As soon as the air has escaped from the hydraulic system, the feed speed and the pressure are secured again.

Disposal:

...in accordance with the scope of validity of the European WEEE (2002/96/EC) directive and RoHS directive (2002/95/EC). Battery packs must be disposed of separately in accordance with the directive on batteries.

WITH EVERY REPLACEMENT PART ORDER, INCLUDE THE FOLLOWING INFORMATION:

- 1) Article number.
- 2) Article description.
- 3) Reference to the operating instructions and/or date.
- 4) Tool type.
- 5) Serial number of the tool.

The guarantee is voided if you use parts that are not original replacement parts from HAUPA.