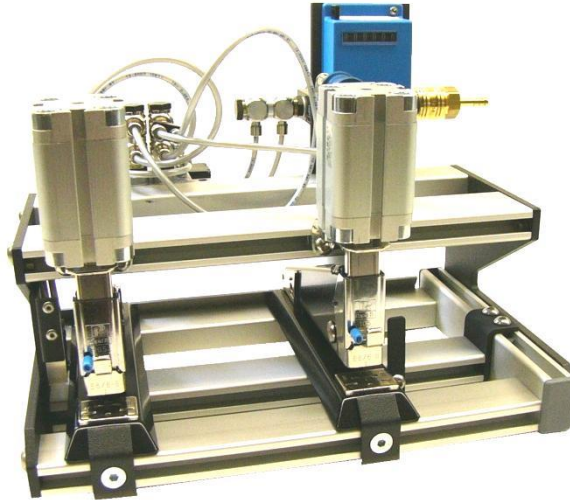


Operating Instructions



TH 210/2/MZ

**Pneumatic table stapler
TH 210**

IMPORTANT

Before the first commissioning read this manual thoroughly and completely and keep it in a safe place. Observe and follow the safety instructions and only use the stapling device if you are sure that you have completely understood all the instructions. Failure to comply can lead to injuries!

If you have any questions, contact the manufacturer

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Model

Type/description:

See device label

Preface

For a safe operation of the stapling device it is necessary to acquire the knowledge conveyed by these **ORIGINAL OPERATING INSTRUCTIONS**. The information is presented in brief and clear form. The chapters are sorted by numbers.

Copyright

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1 Conformity

This stapling device was built in conformity with the following EU guidelines:
Machinery directive 2006/42/ EG

2 Safety information

Safety instructions and important explanations, are labelled with the following pictograms. The symbols used in the operating instructions have the following meaning:

Symbol	Signal word	Meaning
	Warning notice	Warning of possible injuries to persons or possible damage to property Warning of possible defects or destruction of the machine
	Prohibition	Indicates general prohibitions!
	Warning notice	Risk of fingers being crushed!
	Prohibition	Protect from moisture!

Read all these instructions before using the stapling device and keep the safety instructions in a safe place. Safety on the well.

The operating personnel must be trained in the handling of the stapling device and they must have fully read and understood the operating instruction.

To avoid injury or damage, the operator must additionally observe the company's internal safety guidelines!

In addition, we would like to refer to further national rules and safety provisions which are not contained in this manual.



Keep persons who are not instructed, especially children, away from your work area!

If the operator discovers damage to the stapling device during production, the stapling device may no longer be used and must be repaired by a specialist!

The required personal protective equipment must be provided by the operator.

Only original parts may be used as spare parts!

3 Warranty and liability

Our “General Terms of Sale and Delivery” shall generally apply” These terms were made available to the operator by the time of contract award at the latest.

Any warranty and liability claims in the case of personal and material damage shall be excluded, if such damage occurred as a result of:

- Improper use of the tool (not in compliance with intended use).
- Non-compliance with the specification provided in the operating instructions as regards transport, storage, assembly, commissioning, operation, maintenance and setup of the equipment.
- Operation of the tool with defective safety equipment or improperly installed or non-functional safety and protection facilities.
- Improper monitoring of tool parts which are subject to wear and improperly executed repair work.
- Any type of manipulation of the tool.

4 Intended use

The stapling device is **only** to be used as intended. It may only be used, operated and maintained according to the information contained in this operating manual.

Only use the materials and staples defined for the respective stapling device, otherwise malfunctions and damage to the stapler may occur. The stapling device may only be used as specifically described in this operating manual. Any other application is only permitted after a prior written approval from the manufacturer.

Any other usage is not regarded as intended use and can lead to damage to persons or property. The operator of the machine is solely liable for damages deriving from any non-intended use.

The operator must ensure that the stapling device is only operated as intended and that all types of hazards to life and health for the user or third parties are avoided. In addition, a compliance with the accident prevention regulations and other safety regulations and laws must be observed.



If the stapling device is abused for purposes other than the specified usage scenarios, this can lead to accidents

5 Ambient conditions/Emission

The stapling device should be operated at room temperature, protected against environmental influences.

Use within an explosive atmosphere is permitted only with prior consent and written permission of the manufacturer.

The noise emission is less than 70 dB(A).

Non-atmospheric gases are not released during the stapling process.

6 Operating personnel

Only trained and knowledgeable staff is permitted to operate the machine.

Note: Competent, is someone who based on his training and experience has sufficient knowledge in the field of stapling devices and is familiar with the relevant government industrial safety regulations, accident prevention regulations and the generally accepted rules of technology (e.g. DIN standards, VDE regulations) to the extent that he can assess the secure state of machines and in particular the state of stapling devices.

7 Transport and initial commissioning

Before the stapling device is put into operation, please read all instructions in this manual. This stapling device may only be put into operation by **trained** personnel.

The stapling device is delivered completely assembled and can be transported as a whole. Transportation equipment can also be used for transporting the machine.

To make the stapling device ready for operation after delivery, the following tasks must be carried out:

- Check the equipment for completeness
- Load the stapling device with staples
- Connect the compressed air

The air pressure is 4 - 6 bar overpressure.

It is necessary to install a filter regulator upstream which consists of a filter and a pressure regulator.

As a connecting hose, a hose with an internal diameter of 6 mm is required.



Oxygen or combustible gases may not be used as a propulsion source for pressure driven machines.

8 Fundamental notes on the work technique and handling

Before the operator starts to use the machine he must acquire information about the application scenario and check if the stapling device is suitable for it.
Carefully observe all safety instructions!



Check to make sure that the stapling device is not damaged and that it can be operated in a safe way.

The operating safety of the stapling device must be checked before starting the work and constantly rechecked!

Safety devices may not be bypassed or rendered ineffective!

Keep your work area in order.

Disorder in the work area can cause accidents.

- Use only ORIGINAL staples that are made specifically for this quality equipment. Third-party staples can cause considerable damage and malfunctions.
- Never perform a stapling without material to be stapled. Do not remove the stapling device until the stapling process has been completed.
- Do not staple on a hard underlay.
- Should a staple failure arise, correct it immediately and do not trigger any further staple cycles.
- Shut down the stapling device after use.

9 Decommissioning

If the stapling device is not used for a prolonged period of time, disconnect the air supply and extract the staples.

10 Maintenance and care



CAUTION! Before performing any maintenance work, the compressed air supply must be disconnected.



Any kind of alteration to the stapling device (e.g. drill holes) shall only be permitted with a prior consent and written permission of the manufacturer. the manipulations on the safety device(s) are forbidden!

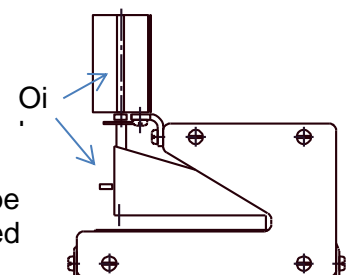
In order to maintain the operational readiness and function of the stapling device, it must be regularly checked and cleaned by the operator or by qualified personnel.

Check area	Activity / check	D	W	M	Y	Area
Stapling area and environment	cleaning		•			Complete stapling device
Stapling device	check / clean		•			Stapling area
Stapling device	Clean and lubricate lightly		•			
Loading area	check / clean		•			
Pneumatic hoses, leak tightness, damages	check		•			Pneumatics
Screw connections for tightness	check			•		
Filter regulator	Cleaning/ draining				•	

T = daily / **W** = weekly / **M** = monthly (6M = every 6 months) / **J** = yearly

Insert stapler:

After about 10,000 staple cycles operations, lubricate the insert stapler with a few drops of thin oil and remove excess oil as shown in the adjacent illustration.



The stapling device does not require a great deal of care, but should be cleaned and maintained on a regular basis. Soiling should be removed directly by the operator after the machining processes.

Adequate care will help to permanently keep the stapling device in a functionally correct state. The stapling device should be cleaned thoroughly at least once a week.

- No aggressive cleaning agents or solvents (could damage seals), or even sandpaper may be used for cleaning.
- The cleaning with compressed air should also be avoided, since this could transport dirt particles into the seals and damage them.
- Do not use linting cleaning wool for cleaning work.

The following work processes/inspections should be performed by knowledgeable personnel on a regular basis:

- Regular oiling of the movable parts (no graphite oil!) - on a weekly basis
- Check the filter controller for condensation. If necessary remove the condensation water.

Only ORIGINAL spare parts may be used. (see "spare parts list")

Failure to comply will void any guarantee claim and exclude any liability!

All technical equipment, especially the safety equipment, must be inspected by qualified personnel after repairs.

In order to maintain the operational readiness and function of the stapling device, it must be regularly checked and cleaned by the operator or by qualified personnel.

11 Application area/designated use

The stapling device may only be used for the following purposes:
for stapling thin solid boards or plastic foils.

Do not staple into hard (e.g. metal plates, nails, etc.) and brittle materials.
This can damage the stapling device.

12 General/Function

The material to be stapled can be inserted into the stapling area.

Starting with the second insert stapler, this can be switched on or off via a manual slide valve on the cylinder.

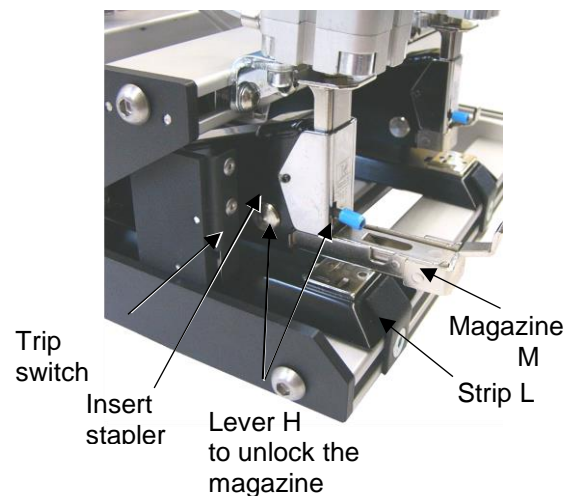
Insert the material to be stapled and push it to the valve stop. The stapling is triggered automatically.

Alternatively/optionally, the stapling can be triggered with an optional foot valve.

13 Reloading/inserting the staples

Zum Reloading Compressed air connection entfernen.

Unlock magazine *M* with lever *H* and pull out, insert staples, insert magazine completely until it locks automatically. Only use original staples, otherwise stapling problems may occur.



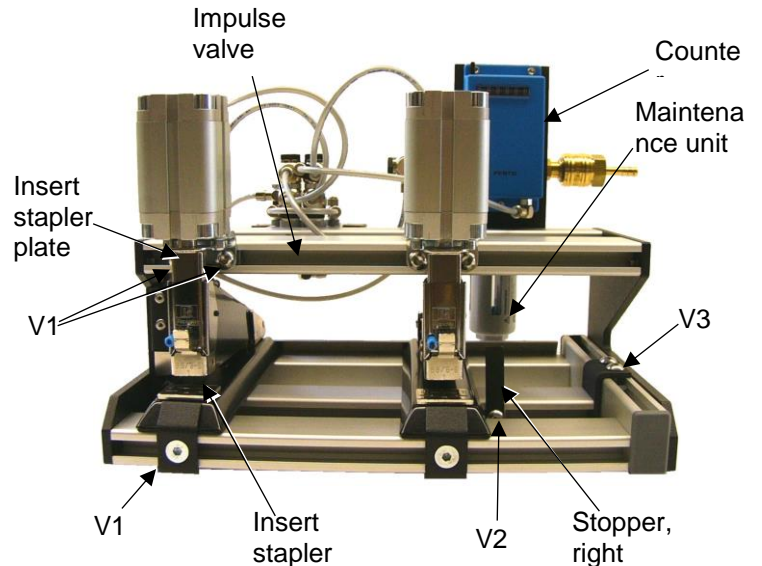
14 Setting the stapling device

Lateral staple spacing

The insert staplers can be adjusted to the desired stapling dimensions. To do this, loosen the three screws *V1* to move the insert stapler and the associated stapling cylinder with the *L* strip. Ensure that the cylinder is centered on the insert stapler plate. Tighten the screws again. The stopper on the right is fixed with screw *V2* in the corresponding position.

Insertion depth

Loosen the two screws *V3* and slide the rear stopper to the desired position. Stopper, right, loosen with screw *V2* and move. Tighten the screws again.



15 Error detection



During any kind of fault, the stapling device is to be shut down and separated from the pressurized air supply until the flawless operation is ensured again. Please do not try to dismantle or repair the stapling device.



In the event of a malfunction, which is more extensive than just some jammed staples, please contact us. The stapling device will be examined by our specialists and the malfunction will be remedied.

Remove all staples in the stapler and clean the stapling device.

- Remove visible staples in the staple outlet opening with a suitable tool. Do not overload or damage the device thereby! In difficult cases, open the magazine and pull out the staples upwards. Make sure that the clamp outlet opening is not damaged.
- Replace damaged or worn stapling devices.
- Connect the compressed air again
- Make sure that the air pressure is set correctly and that manual slide valves are open

15.1 No stapling occurred or the staple wasn't *fully bent*, or it *remains* in the stapling device

Fault	Cause	Remedy
No pressure indication	Shut-off valve closed.	Open the shut-off valve.
	Pressure not set.	Set the pressure with the pusher adjustment knob.
	Pressure gauge defective.	Replace pressure gauge.
Low flow rate (operating pressure collapses during air consumption)	Filter cartridge is dirty.	Replace the filter cartridge.
	Constriction between main valve and maintenance unit	Check the lines.
Pressure rises above set operating pressure	Valve disc at the sealing seat defective.	Contact the manufacturer
Audible blow-off at the control knob	Valve seat defective.	Contact the manufacturer
Audible blow-off at the drain plug	Drain plug leaking.	Tighten or replace.
Feed movement not guaranteed.	Air pressure too low.	With stapling 4 - 6 bar overpressure. Check hoses and valves, and ensure a sufficient air supply.
Air cleanliness inadequate	Compressed air	Connect a maintenance unit upstream consisting of a pressure regulator and water separator.
Staple is jammed in the stapling head and is not preformed.	Compressed air	Air pressure too low. Stapling device operated too quickly.

16 Technical data/versions

Drive	pneumatic
Operating pressure	4-5 bar
Distance between insert	min 45 mm to max 200 mm
Number of insert staplers	1 to max. 5 (2 standard)
Air consumption/stapling	approx. 0.06 NL per cylinder and stapling
Staple type	66/6 galvanized and 66/8 galvanized
Stapler type	Insert stapler 105
Number of staples	max. 210
Depth x width x height	approx. 285 mm x 270 mm x 220 mm (standard)
Total weight	approx. 5.2 kg (2 insert staplers)
Counter	optional

TH 210 Table stapler pneumatic	<i>without counter TH 210./OZ</i>	<i>with counter TH 210./MZ</i>
TH 210/1 with 1 insert stapler	TH 210/1/OZ	TH 210/1/MZ
TH 210/2 with 2 insert staplers	TH 210/2/OZ	TH 210/2/MZ
TH 210/3 with 3 insert staplers	TH 210/3/OZ	TH 210/3/MZ
TH 210/4 with 4 insert staplers	TH 210/4/OZ	TH 210/4/MZ
TH 210/5 with 5 insert staplers	TH 210/5/OZ	TH 210/5/MZ
Staples galvanized		
66/6 5000/box, 500.000/carton	6 mm leg	12.8 mm back
66/8 5000/box, 500.000/carton	8 mm leg	12.8 mm back

17 Notice of residual risks



Do not reach into the stapling device or the staple outlet opening when the stapler is in working order! DANGER OF injury!



Compressed air connections must be checked regularly



When working on pressurized air connections and hoses the stapling device must be depressurized.



Never point the stapling device at yourself or other persons



**Protect the stapling device from moisture!
Do not operate the machine in a humid environment!
Only operate the machine within buildings!**

18.1 List of spare parts

see separate spare parts list

18.2 Pneumatic circuit diagram

