

# 8306

## INSTRUCTION MANUAL

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und Maschinen AG**

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## 1 Safety

### 1.01 Directives

This machine is constructed in accordance with the European regulations indicated in the conformity and manufacturer's declarations.

In addition to this instruction manual, please also observe all generally accepted, statutory and other legal requirements, including those of the user's country, and the applicable pollution control regulations! The valid regulations of the regional social insurance society for occupational accidents or other supervisory authorities are to be strictly adhered to!

### 1.02 General notes on safety

- The machine may only be operated by adequately trained operators and only after these have read the appropriate Instruction Manual!
- The danger and safety instructions attached to the machine must be followed!
- The machine may only be used for the purpose intended and may not be operated without its safety devices. All relevant safety regulations must be adhered to.
- When changing the feed rollers or the hot air nozzle, when leaving the machine unattended or during maintenance work, the machine must be disconnected from the power supply by pulling out the plug!
- The daily maintenance work may only be carried out by appropriately trained personnel!
- During repair and maintenance work on pneumatic devices the machine must be disconnected from the pneumatic supply system! The only exceptions permitted are during adjustment work and function tests carried out by appropriately trained personnel!
- Repairs and special maintenance work may only be carried out by qualified service staff or appropriately trained personnel!
- Work on electrical equipment may only be carried out by appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! Exceptions to this rule are found in the regulations EN 50110.
- Modifications and alterations to the machine may only be carried out under observance of all the relevant safety operations!
- Only spare parts which have been approved by us are to be used for repairs! We draw special attention to the fact that spare parts and accessories not supplied by us have not been subjected to testing nor approval by us. Fitting and/or use of any such parts may cause negative changes to the design characteristics of the machine. We shall not accept any liability for damage caused by the use of non-original parts.

## 1.03

### Safety symbols



Danger!  
Special points to observe.



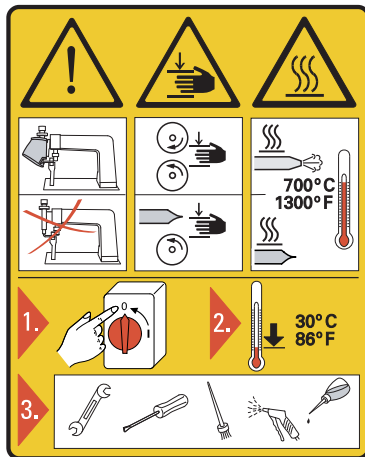
Danger of hands being crushed!



Danger of burns from hot surface!



Danger from electric voltage!



#### Caution

Do not operate without finger guard and safety devices.

**Turn off the main switch** and let the machine **cool down** before any setting up, maintenance or cleaning work!

## 1.04

### Important notes for the user

- This instruction manual belongs to the equipment of the machine and must be available to the operating staff at all times.
- This instruction manual must be read before the machine is operated for the first time.
- Both operating and technical staff must be instructed on the safety devices of the machine and on safe working methods.
- It is the duty of the user to operate the machine in perfect running order only.
- The user must ensure that none of the safety devices are removed nor put out of working order.
- The user must ensure that only authorized persons operate and work on the machine.
- The user must make sure there is no high-frequency welding equipment being operated in direct proximity to the machine that exceeds the EMC limit values according to EN 60204-31 for the machine.

For further information please refer to your PFAFF agency.

## 1.05 Operating and technical staff

### 1.05.01 Operating staff

Operating staff are the persons responsible for setting up, operating and cleaning the machine and for removing any disturbances in the sewing area.

The operating staff is obliged to observe the following points, and must:

- always observe the notes on safety in this instruction manual!
- avoid using any working methods which adversely affect the safety of the machine!
- avoid wearing loose-fitting clothing or jewelry such as necklaces or rings!
- also ensure that only authorized persons are allowed near the danger area of the machine!
- immediately report to the user any changes to the machine that may affect its safety!

### 1.05.02 Technical staff

Technical staff are persons who have been trained in electrical engineering, electronics and mechanical engineering. They are responsible for lubricating, servicing and repairing the machine.

The technical staff is obliged to observe the following points, and must:

- always observe the notes on safety in this instruction manual!
- switch off the on/off switch before carrying out any maintenance and repair work on the machine!
- never work on parts or equipment still connected to the power supply! Exceptions to this are only permissible according to regulations EN 50110.
- replace all safety covers after maintenance and repair work!

1.06

Danger



When the machine is in operation, a work area of 1 m must be kept free in front of and behind the machine, so that access to the machine is possible at all times without difficulty.



Do not operate the machine without protective cover 1!  
Danger of burns if heating element 2 is touched!



Do not place hands in the swivel area of the heating element 2 and the swivel unit 3!  
Danger of crushing when the heating element is engaged or disengaged!



## Proper use

The PFAFF 8306 is a hot-air tape sealing machine with post.

It is manufactured exclusively for companies, which have been certified by W.L. Gore & Associates GmbH for processing Gore materials.



Any and all uses of this machine which have not been approved of by the manufacturer are considered to be inappropriate! The manufacturer cannot be held liable for any damage caused by the inappropriate use of the machine! The appropriate use of the machine includes the observance of all operational, adjustment, maintenance and repair measures required by the manufacturer!

## 3 Specifications ▲

Dimensions and weight:

Length: ..... approx. 1350 mm

Width: ..... approx. 550 mm

Height: ..... approx. 1780 mm

Clearance width: ..... approx. 420 mm

Clearance between rollers: ..... approx. 20 m

Working air pressure: ..... min. 5,5 - max. 6,0 bar

Air consumption: ..... 60 – 120 l/min

Sealing speed: ..... max. 25 m/min.

Sealing temperature: ..... 0 - 700°C

Connection data:

Mains voltage (set for): ..... 230 V  $\pm$  10%, 50/60 Hz, 1 phase

Power input: ..... approx. 3600 W

Leakage current .....  $\leq$  5 mA♦

Noise data:

Emission sound level at the workplace: .....  $L_{pA} < 70$  dB(A)■

(Noise measurement in acc. with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)

Ambient temperature

85% rel. humidity (condensation not permitted): ..... 5 – 40° C

Net weight: ..... approx. 145 kg

▲ Subject to alterations

■  $K_{pA} = 2,5$  dB

♦ Due to the use of network filters there is a nominal leakage current of  $\leq$  5 mA.

### 4 Disposal of Machine

- Proper disposal of the machine is the responsibility of the customer.
- The materials used for the machine are steel, aluminium, brass and various plastic materials. The electrical equipment comprises plastic materials and copper.
- The machine is to be disposed of according to the locally valid pollution control regulations; if necessary, a specialist is to be commissioned.



Care must be taken that parts soiled with lubricants are disposed of separately according to the locally valid pollution control regulations!

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## *Transportation, packing and storage*

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### 5 Transportation, packing and storage

#### 5.01 Transportation to customer's premises

The machines are delivered completely packed.

#### 5.02 Transportation inside the customer's premises

The manufacturer cannot be made liable for transportation inside the customer's premises nor to other operating locations. It must be ensured that the machines are only transported in an upright position.

#### 5.03 Disposal of packing materials

The packing materials of this machine comprise paper, cardboard and VCE fibre. Proper disposal of the packing material is the responsibility of the customer.

#### 5.04 Storage

If the machine is not in use, it can be stored as it is for a period of up to six months, but it should be protected against dust and moisture.

If the machine is stored for longer periods, the individual parts, especially the surfaces of moving parts, must be protected against corrosion, e.g. by a film of oil.

### 6 Explanation of symbols

In this instruction manual, work to be carried out or important information is accentuated by symbols. These symbols have the following meanings:



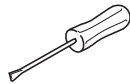
Note, information



Cleaning, care



Lubrication



Maintenance, repairs, adjustment, service work  
(only to be carried out by technical staff)

## 7 Controls

### 7.01 Summary of the controls

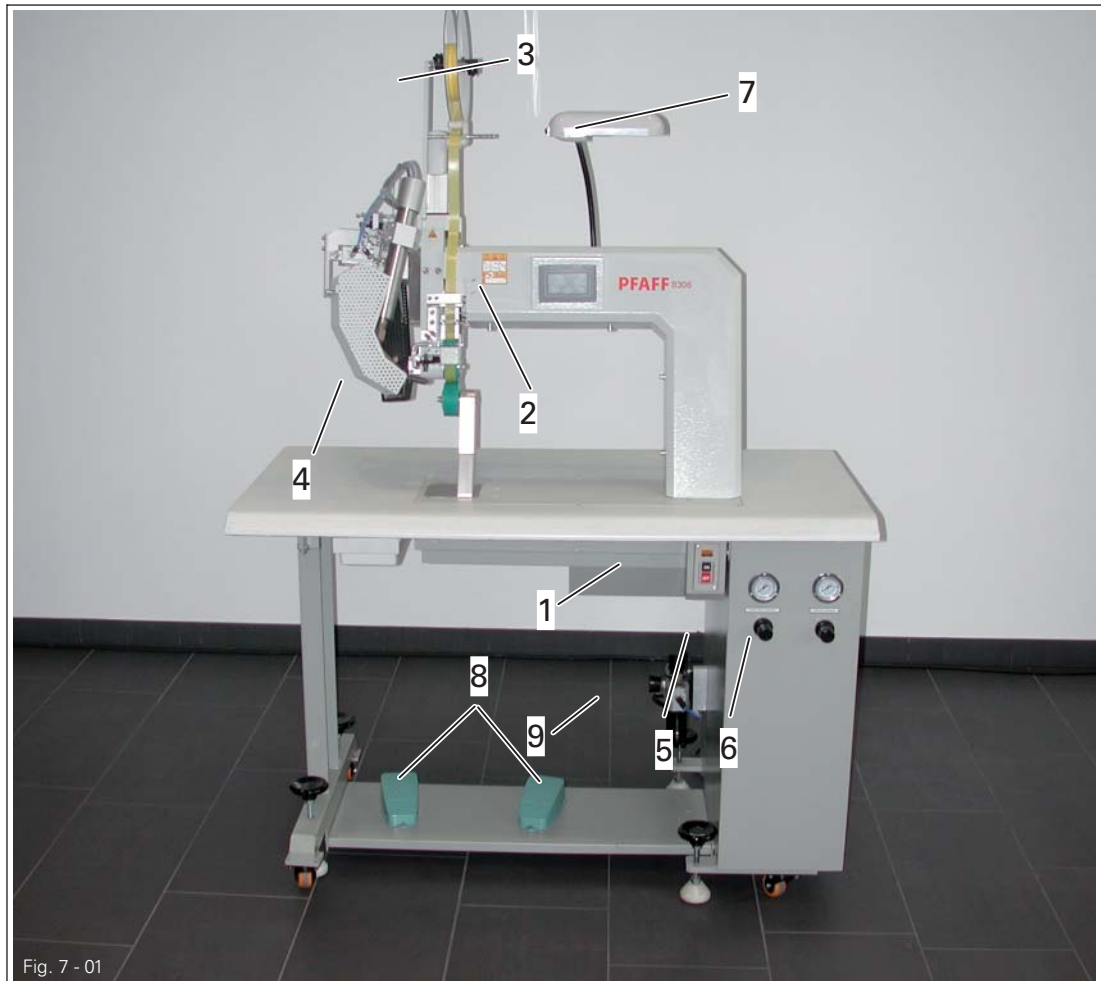


Fig. 7 - 01

- 1 Main switch
- 2 Control panel,
- 3 Sealing tape reel holder
- 4 Hot air nozzle
- 5 Regulator for the feed roller pressure
- 6 Regulator for the hot air pressure
- 7 Leuchte
- 8 Pedals
- 9 Maintenance unit

7.02 Main switch

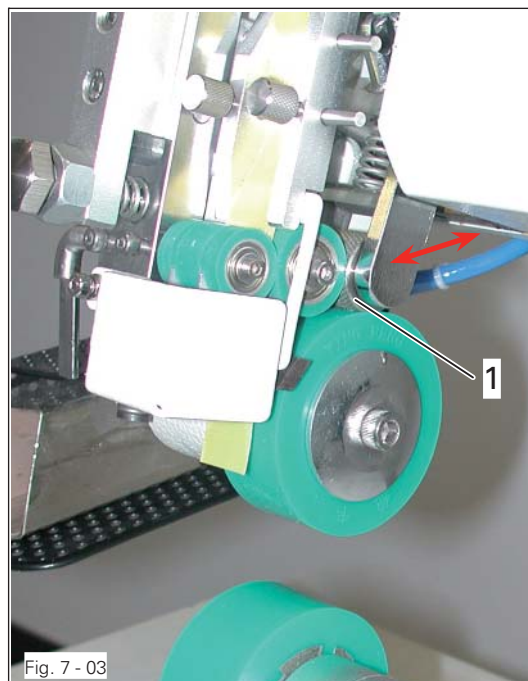


- The machine is switched on or off by pressing main switch 1.



When switching the machine on or off, please observe the notes in Chapter 8.05 Switching the machine on and off!

7.03 Roller feed of the belt transport



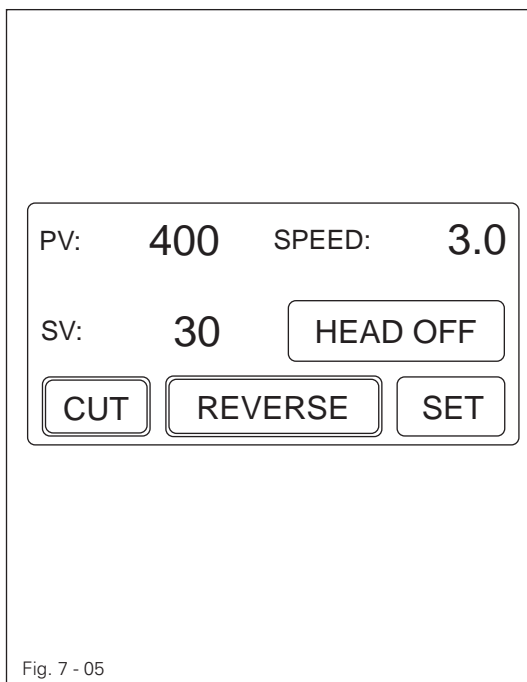
- Pivoting the roller feed 1 forwards switches the belt transport on and pivoting it backwards switches it off again.

## 7.04 Regulator for the hot air pressure and the feed roller pressure



- The feed roller pressure is set by turning regulator 1.
- The feed roller pressure level can be read on gauge 2.
- The hot air pressure is set by turning regulator 3.
- The hot air pressure level can be read on gauge 4.

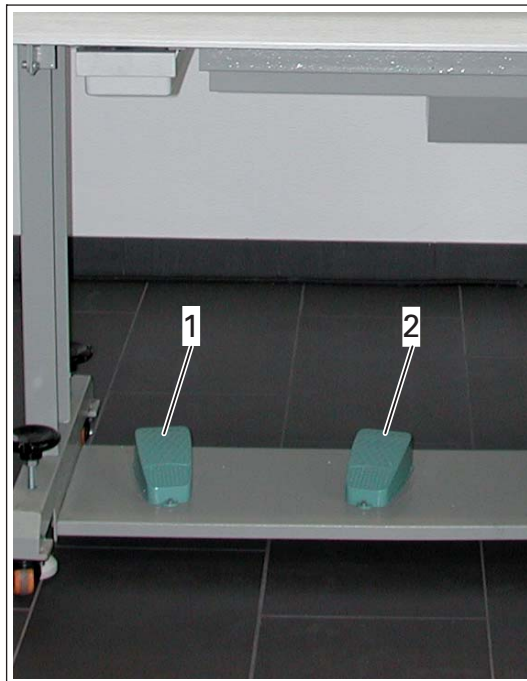
## 7.05 Control panel



- PFAFF 8306 is fitted with a three-digit touch screen display.
- The functions are described in Section 9 Set-up.



7.06 Pedals



- The machine will carry out the following functions when the pedals are actuated:

Machine function with the actuated		
Pedal 1	Pedal 2	Function
●	-	Low/lift the upper transport roller
●	●	The welding operation is carried out by actuating both pedals at once
●	●	With the belt transport switched off the welding operation will end when the pedal 2 is released.
		With the belt transport switched on, the welding operation will end after welding the predefined belt feed.

# Mounting and commissioning the machine

## 8 Mounting and commissioning the machine

After unpacking the machine, check it for any transport damage. In case of damage, inform the shipping company and the responsible PFAFF dealer.



The machine must only be mounted and commissioned by qualified personnel!  
All relevant safety regulations are to be observed!

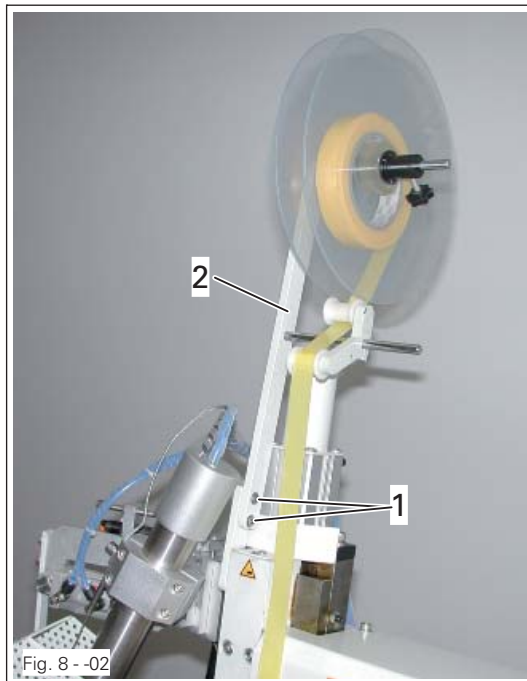
### 8.01 Mounting

At the machine's location, there must be a stable and horizontal surface as well as suitable electricity and compressed air supplies (see chapter 3 Specifications).



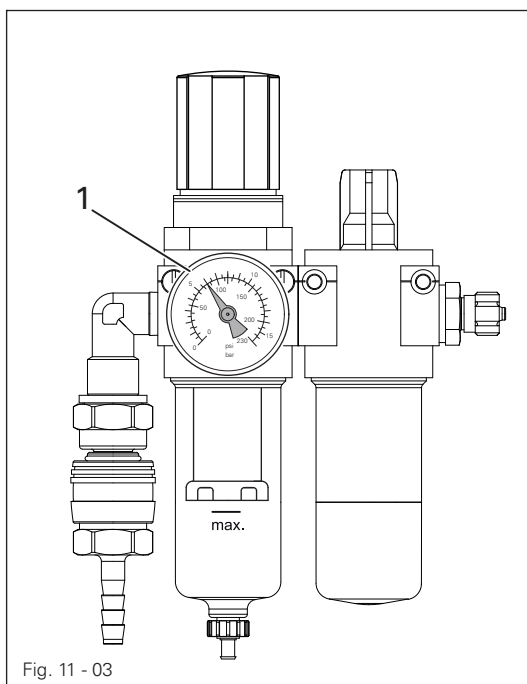
- Lift the machine off the transport pallet with a fork.
- Turn screws 1 so far until the supports 2 are on the floor and the machine is secure and is standing upright.

## 8.02 Fitting the sealing tape reel holder



- Fasten sealing tape reel holder 2 with screws 1.

## 8.03 Connecting compressed air



- Connect the machine to the compressed air system.  
Manometer 1 on the maintenance unit should show pressure of 6 bar.  
Set this value, if possible (see Section 11.03 Monitoring/adjusting air pressure).

The air must be completely oil-free and dry.

The compressed air quality influences the service life of the heating cartridge in the air heater. If the air is very damp, a compressed air cold drier with preliminary filter and secondary fine filter must be installed in front of the heat-sealing machine



# Mounting and commissioning the machine

## 8.04 Commissioning

- Check the machine, particularly its electrical wiring and pneumatic tube connections, for any damage.
- Have skilled personnel check if the machine can be operated with the available mains voltage.



Do not operate the machine if there is any discrepancy.



The machine may only be connected to an earthed socket!

## 8.05 Switching the machine on / off



Work steps for switching on the machine:

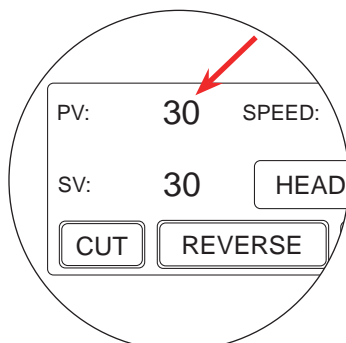
- Check air pressure (see Section 11.04 Adjusting air pressure)
- Adjust hot air pressure from 30 PSI / 0.2 Mpa on controller 1.



The hot air pressure may not be less than 15 PSI / 0.1 Mpa. Risk of damaging the machine!

Work steps for switching off the machine:

- Set the temperature to 30 °C on the control panel, as described in Section 9.02 and wait until the display PV is below 50°C (see arrow).
- Adjust hot air pressure to "0" on controller 1.
- Switch off machine at the main switch.



9 Preparation



All regulations and instructions in this Instruction Manual are to be observed!  
 Special attention is to be paid to the safety regulations!  
 All preparation work is only to be carried out by appropriately trained personnel!

9.01 Inserting sealing strip



Fig. 9 - 01

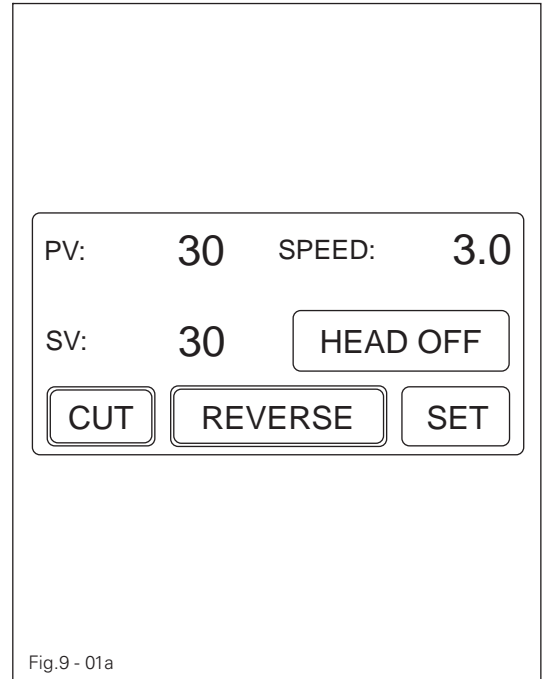
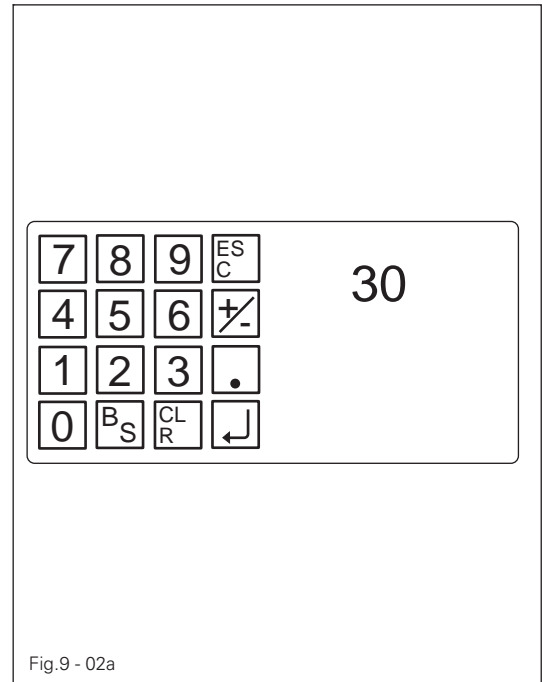
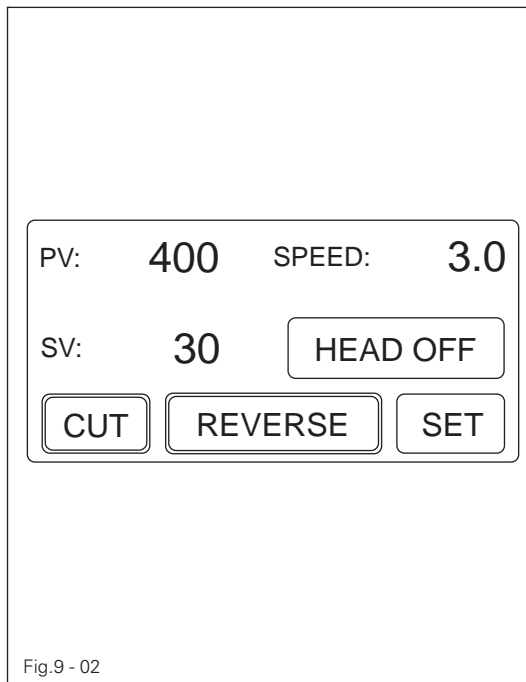


Fig.9 - 01a

- Switch on machine and select the required language.
- Actuate the "CUT" button on the control panel.  
The machine opens the band brake 1.
- Insert the sealing strip as far as the feed roller 2.
- Actuate the "CUT" button in the control panel once again.  
Band brake 1 and blade are closed.
- Actuate the "CUT" button in the control panel once again.  
The machine will carry out a band feed and any protruding band will then be cut.

## 9.02 Entering the sealing temperature



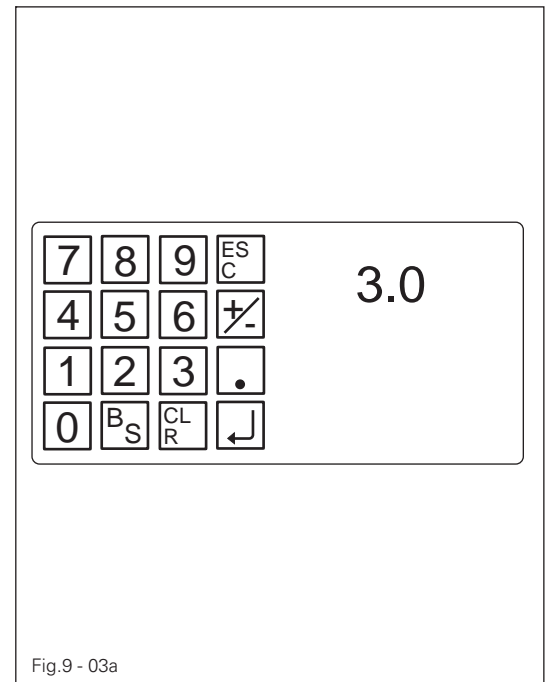
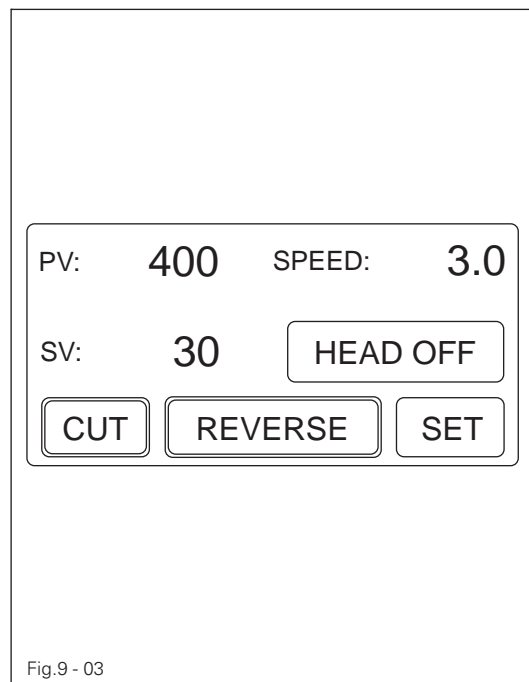
- Switch on machine and select the required language.
- Type the figure in "SV".
- Enter the required temperature on the numeric keypad.
- Confirm the entry with the Enter button.
- The target temperature is displayed under "PV".
- The actual temperature is displayed under "SV".
- Adjust hot air pressure as described in Section 8.05 Switching Machine On/Off.



The heating may not be switched on before the hot air pressure has been adjusted!

- Hold down the "HEAT OFF" button for approx. 3 s to switch the machine on.  
The machine will heat up to the pre-set temperature. "HEAT ON" appears in the display.

## 9.03 Entering the sealing speed



- Switch on machine and select the required language.
- Type the numeric value against "SPEED".
- Enter the required speed on the numeric keypad.
- Confirm the entry with the "Enter" button.
- The speed is displayed under "SPEED".

## 9.04 Further settings

- Switch on machine and select the required language.
- Further settings can be made by tapping the "SET" button in the way previously mentioned.

## 10 Heat sealing



The machine may only be operated by properly instructed personnel. The operating personnel must make sure that only authorised persons are in the danger zone of the machine.

### 10.01 Heat-sealing principle

In order to achieve optimum heat-sealing, certain conditions concerning the workpiece and the machine settings have to be fulfilled.

The heat-sealing tape must be:

- heat-sealable
- be suitable for use on the machine with regard to thickness and properties

In the seam area the material to be heat-sealed must be clean and free from parting agents such as e.g. oil or silicone.

The basic requirements on the heat-sealing machine are:

- the correct working temperature,
- the correct setting of the hot-air pressure,
- optimum pressure of the feed rollers on the workpiece,
- correct sealing speed.



All settings of this machine are always dependent on the type of material being heat-sealed.

Errors which may occur during heat-sealing:

- Hot-air temperature too high: heat-sealing tape and workpiece (membrane) can burn.
- Hot air temperature too low: Complete sealing of the sewn seam is not possible. Fusing temperature for sealing tape not reached.
- Sealing tape not completely: The seam sewn is not properly sealed. (Check the bonded:symmetrical and parallel alignment of the feed rollers, hot air nozzle and sealing tape with each other.)

### 10.02 Welding operation

- Trigger the welding operation by using the pedal function, as described in Section 7.06 Pedals.



11 Care and maintenance

11.01 Care and maintenance intervals

Clean hot-air nozzle .....	as required
Check air pressure .....	daily, before use
Clean water bowl of air filter/regulator .....	daily, before use

11.02 Clean hot-air nozzle



Switch the machine off and let it cool down!  
Danger of burns if the hot-air nozzle is touched!



- Before each use remove any residues from the air slot of hot-air nozzle 1.

11.03 Checking/regulating the air pressure

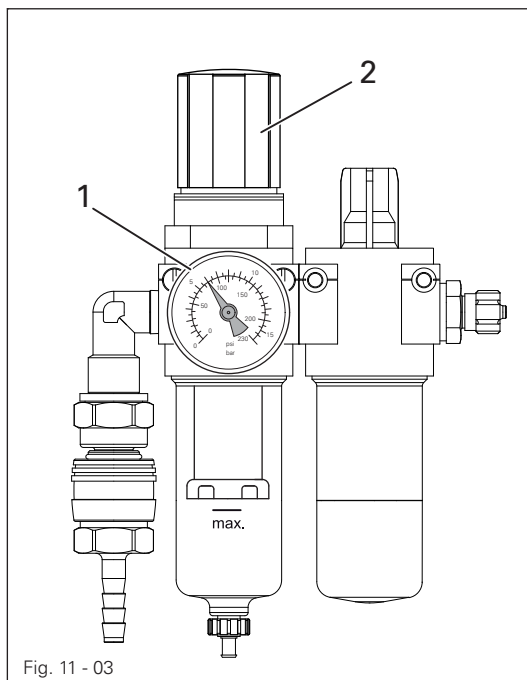
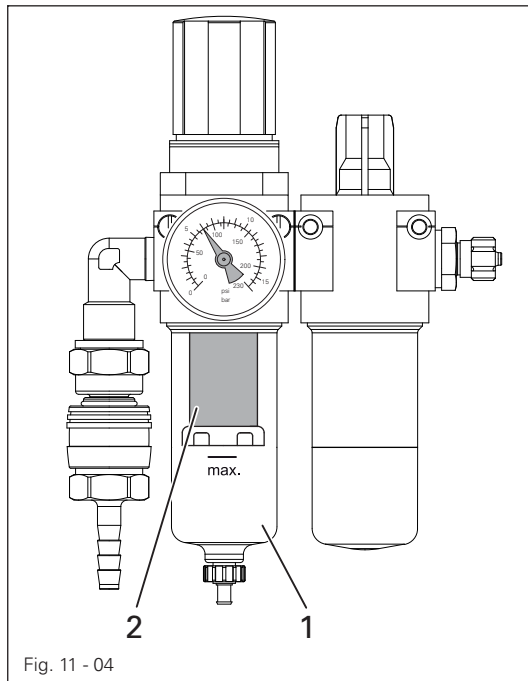


Fig. 11 - 03

- Check the air pressure on gauge 1 every time before operation.
- Gauge 1 must show a pressure of 6 bar.
- Regulate this pressure if required.
- To do so, pull knob 2 up and turn it accordingly.

### 11.04 Emptying/cleaning the water bowl of the air filter/regulator



Switch off the machine.  
Disconnect the air hose at the  
air filter/regulating unit.

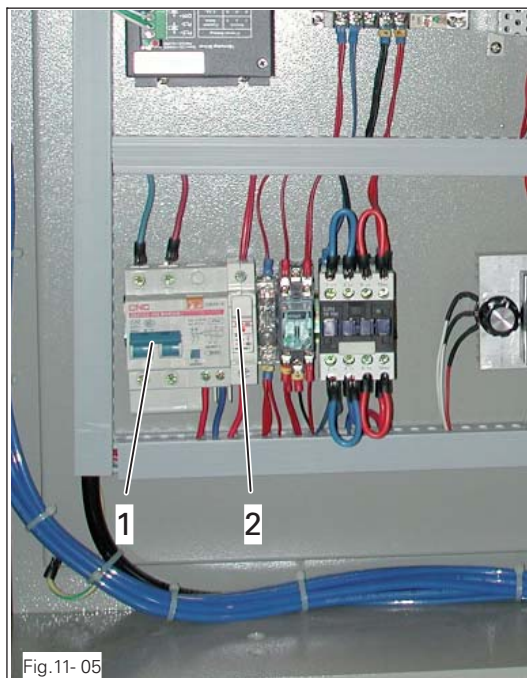
#### Emptying the water bowl

- Empty water container 1, if necessary.

#### Cleaning the filter

- Remove water container 1 and take out filter 2.
- Clean the filter with compressed air or with isopropyl-alcohol, part number 95-665735-91.
- Use filter 2 and re-fit water container 1.

### 11.05 Checking the fuses



The purpose of the fuses is to  
provide protection against ma-  
jor damage in case of a short-  
circuit or overload.



The mains plug first has to be  
pulled before opening the con-  
trol box!



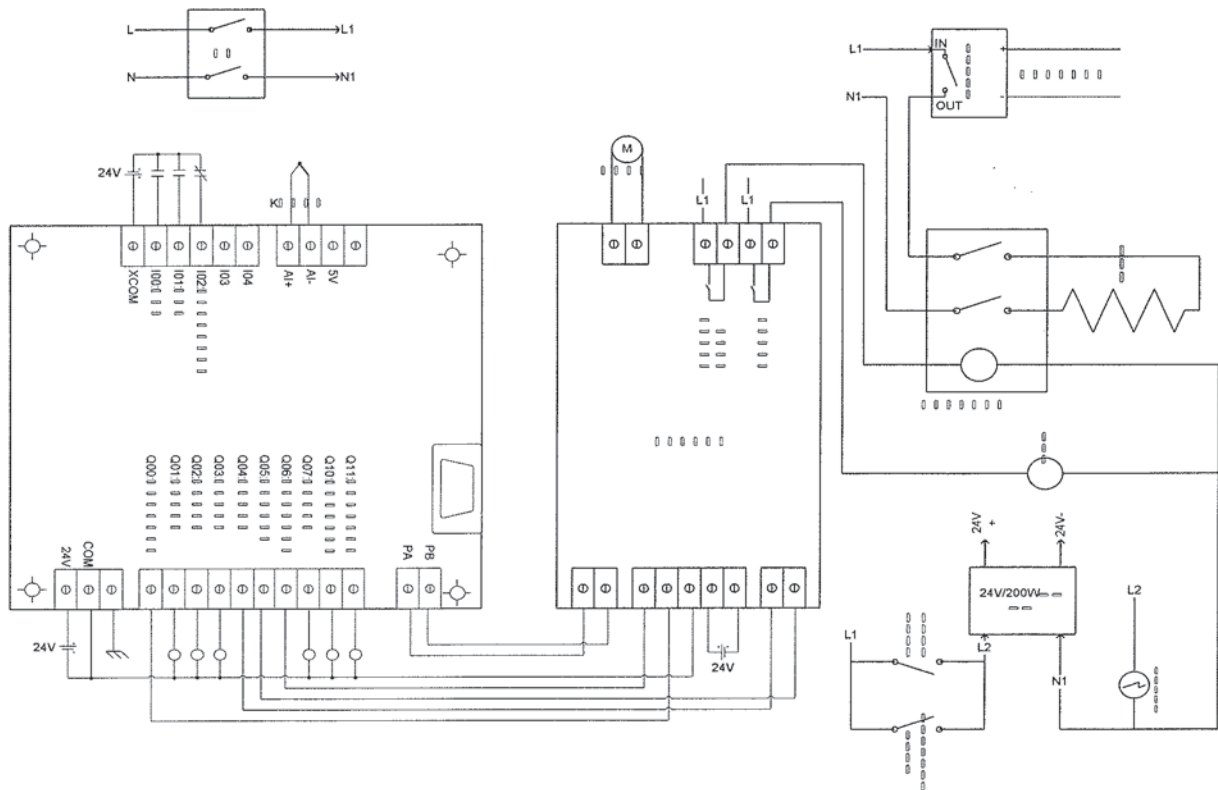
Danger from electric voltage!



Before switching the machine  
on again, first eliminate the  
cause of the fault!

- 1 = residual current operated device
- 2 = main fuse

12 Circuit diagram



- Q07: Electromagnetic brake for Blowing
- Q06: Motor Relay for Break
- Q05: Blower Relay
- Q04: Heating Relay
- Q03: Electromagnetic brake for Shear
- Q02: Electromagnetic brake for Air Gun
- Q01: Electromagnetic brake for Press wheel
- Q00: Motor Relay for Direction
- 101: Right Pedal                      100: Left Pedal



**Europäische Union**  
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