

1265-7

**Operating Instructions** 

# IMPORTANT READ CAREFULLY BEFORE USE KEEP FOR FUTURE REFERENCE

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1	About these instructions	5
1.1 1.2 1.3	For whom are these instructions intended?	6 7
1.4	Liability	
2	Safety	
2.1 2.2	Basic safety instructions	
3	Machine description	13
3.1 3.2 3.3	Components of the machine	13
4	Operation	15
4.1 4.2 4.3 4.4	Preparing the machine for operation.  Switching on and off the machine  Operating the machine head.  Threading diagram.	15 16 17
4.4.1 4.5 4.6	Disconnecting the compressed air supply  Disassembling and assembling the fabric sliding plate  Edge guide	20
4.6.1 4.6.2	Mechanical edge guide Pneumatic edge guide (optional)	22
4.7 4.7.1 4.7.2	Adjusting the contour guide	25
4.7.2 4.8 4.8.1	Adjusting the help roller  Differential feed  Fullness distribution controlled by the stepper motor	27
4.9 4.9.1	Operating the fusing stationInserting/changing the tape	33 33
4.9.2 4.9.3	Switching on the fusing station	35
4.9.4 4.9.5 4.9.6	Fusing knee lining and front trousers	38
4.10 4.10.1 4.10.2	Light barrier	40 40
4.11 4.11.1 4.11.2	Stacker Operating the flip stacker	42 42
4.11.3 4.12	Operating the clamping stacker  Operating the alternating stacker  Air nozzles	44 45
4.12.1 4.12.2 4.12.3	Adjusting the air nozzles in the tabletop	46 46
4.13 4.13.1 4.13.2	Transport stationAdjusting the pullerOperating the puller	49
4.13.3 4.14	Operating the roll-out device	50



5	STEHA programming	55
5.1	STEHA control panel	55
5.1.1	Starting up the screen	
5.2	Navigating the control panel	57
5.3	Calling up programs	
5.4	Main screen	
5.4.1	Setting seam-specific parameters	
5.5	Functions of access level 2	
5.5.1	Setting the global parameters	
5.5.2	Seam sequences	
5.5.3 5.5.4	Pre-seams	
5.5.4 5.5.5	Seam start mode Activating the sewing motor	
5.5.6	Resetting the daily piece counter	
5.5.7	Input-Output Test	
5.6	Manual sewing	
5.7	Machine parameters	
5.8	Stacking	
5.9	Threading mode	
5.10	Programming menus	
5.10.1	Navigating the programming levels	82
5.10.2	Allocating a free storage location	
5.10.3	INIT Parameters	
5.10.4	Memory card	
5.10.5	Diagnostics	
5.10.6	Additional programs	90
6	Maintenance	93
6.1	Cleaning	94
6.2	Lubricating	96
6.2.1	Checking the lubrication of the machine head	97
6.3	Servicing the pneumatic system	
6.3.1	Adjusting the operating pressure	
6.3.2	Draining the water condensation	
6.3.3	Cleaning the filter element	
6.4	Parts list	. 100
7	Setup	. 101
7.1	Checking the scope of delivery	. 101
7.2	Removing the transport locks	
7.3	Adjusting the working height	
7.4	Assembling the reel stand	
7.5	Assembling the flip stacker (optional)	. 105
7.6	Assembling the alternating stacker (optional)	
7.6.1	Assembling the delivery table	
7.7	Assembling the clamping stacker tray extension (optional)	
7.8	Electrical connection	
7.9	Pneumatic connection	
7.9.1	Assembling the compressed air maintenance unit	
7.9.2	Adjusting the operating pressure	
7.10	Performing a test run	. 113



8	Decommissioning	115
9	Disposal	117
10	Troubleshooting	119
10.1 10.2	Customer ServiceErrors in sewing process	
11	Technical data	123
11.1 11.2	Requirements for fault-free operationRecommended threads	





#### 1 About these instructions

These instructions have been prepared with utmost care. They contain information and notes intended to ensure long-term and reliable operation.

Should you notice any discrepancies or if you have improvement requests, then we would be glad to receive your feedback through **Customer Service** ( $\square$  *p. 119*).

Consider the instructions as part of the product and store them in a place where they are readily available.

#### 1.1 For whom are these instructions intended?

These instructions are intended for:

- Operators:
   This group is familiar with the machine and has access to the instructions. Specifically, chapter **Operation** ( p. 15) is important for the operators.
- Specialists:
   This group has the appropriate technical training for performing maintenance or repairing malfunctions. Specifically, the chapter Setup ( p. 101) is important for specialists.

Service Instructions are supplied separately.

With regard to minimum qualification and other requirements to be met by personnel, please also follow the chapter **Safety** ( $\square$  p. 9).



# 1.2 Representation conventions – symbols and characters

Various information in these instructions are represented or highlighted by the following characters in order to facilitate easy and quick understanding:



#### **Proper setting**

Specifies proper setting.



#### **Disturbances**

Specifies the disturbances that can occur from an incorrect setting.



#### Cover

Specifies which covers must be disassembled in order to access the components to be set.



Steps to be performed when operating the machine (sewing and equipping)



Steps to be performed for service, maintenance, and installation



Steps to be performed via the software control panel

#### The individual steps are numbered:

- First step
- Second step
- The steps must always be followed in the specified order.
- Lists are marked by bullet points.

#### Result of performing an operation

Change on the machine or on the display/control panel.



#### **Important**

Special attention must be paid to this point when performing a step.



#### Information

Additional information, e.g. on alternative operating options.



#### Order

Specifies the work to be performed before or after a setting.

#### References

Reference to another section in these instructions.



Safety

Important warnings for the user of the machine are specifically marked. Since safety is of particular importance, hazard symbols, levels of danger and their signal words are described separately in the chapter **Safety** ( $\square$  p. 9).

# Location information

If no other clear location information is used in a figure, indications of **right** or **left** are always from the user's point of view.

#### 1.3 Other documents

The machine includes components from other manufacturers. Each manufacturer has performed a hazard assessment for these purchased parts and confirmed their design compliance with applicable European and national regulations. The proper use of the built-in components is described in the corresponding manufacturer's instructions.



# 1.4 Liability

All information and notes in these instructions have been compiled in accordance with the latest technology and the applicable standards and regulations.

Dürkopp Adler cannot be held liable for any damage resulting from:

- Breakage and transport damages
- · Failure to observe these instructions
- Improper use
- · Unauthorized modifications to the machine
- Use of untrained personnel
- · Use of unapproved parts

### **Transport**

Dürkopp Adler cannot be held liable for breakage and transport damages. Inspect the delivery immediately upon receiving it. Report any damage to the last transport manager. This also applies if the packaging is not damaged.

Leave machines, equipment and packaging material in the condition in which they were found when the damage was discovered. This will ensure any claims against the transport company.

Report all other complaints to Dürkopp Adler immediately after receiving the product.



# 2 Safety

This chapter contains basic information for your safety. Read the instructions carefully before setting up or operating the machine. Be sure to follow the information in the safety instructions. Failure to do so can result in serious injury and property damage.



# 2.1 Basic safety instructions

The machine may only be used as described in these instructions.

The instructions should be available at the machine's location at all times.

Work on live components and equipment is prohibited. Exceptions are defined in the DIN VDE 0105.

For the following work, switch off the machine at the main switch or disconnect the power plug:

- Replacing the needle or other sewing tools
- Leaving the workstation
- · Performing maintenance work and repairs
- Threading

Missing or faulty parts could impair safety and damage the machine. Only use original parts from the manufacturer.

#### **Transport**

Use a lifting carriage or stacker to transport the machine. Raise the machine max. 20 mm and secure it to prevent it from slipping off.

#### Setup

The connecting cable must have a power plug approved in the relevant country. The power plug may only be assembled to the power cable by qualified specialists.

# Obligations of the operator

Follow the country-specific safety and accident prevention regulations and the legal regulations concerning industrial safety and the protection of the environment.

All the warnings and safety signs on the machine must always be in legible condition. Do not remove!

Missing or damaged warnings and safety signs must be replaced immediately.

#### Requirements to be met by the personnel

Only qualified specialists may be used for:

- · Setting up the machine/putting the machine into operation
- · Performing maintenance work and repairs
- Performing work on electrical equipment

Only authorized persons may work on the machine and must first have understood these instructions.



#### Operation

Check the machine during operating for any externally visible damage. Stop working if you notice any changes to the machine. Report any changes to your supervisor. Do not use a damaged machine any further.

# Safety equipment

Safety equipment should not be disassembled or deactivated. If it is essential to disassemble or deactivate safety equipment for a repair operation, it must be assembled and put back into operation immediately afterward.

# 2.2 Signal words and symbols used in warnings

Warnings in the text are distinguished by color bars. The color scheme is based on the severity of the danger. Signal words indicate the severity of the danger.

## Signal words

Signal words and the hazard they describe:

Signal word	Meaning
DANGER	(with hazard symbol) If ignored, fatal or serious injury will result
WARNING	(with hazard symbol) If ignored, fatal or serious injury can result
CAUTION	(with hazard symbol) If ignored, moderate or minor injury can result
CAUTION	(with hazard symbol) If ignored, environmental damage can result
NOTICE	(without hazard symbol) If ignored, property damage can result

#### **Symbols** The following symbols indicate the type of danger to personnel:

Icon	Type of danger
	General
4	Electric shock



Icon	Type of danger
	Puncture
	Crushing
	Environmental damage

# **Examples** Examples of the layout of warnings in the text:

## **DANGER**



# Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that will result in serious injury or even death if ignored.

#### **WARNING**



# Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in serious or even fatal injury if ignored.

## **CAUTION**



# Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in moderate or minor injury if the warning is ignored.



# **CAUTION**



# Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

This is what a warning looks like for a hazard that could result in environmental damage if ignored.

# **NOTICE**

# Type and source of danger!

Consequences of non-compliance.

Measures for avoiding the danger.

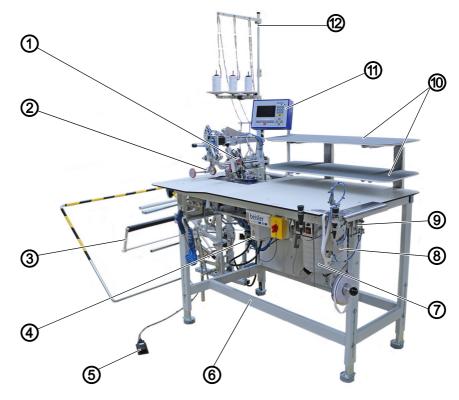
This is what a warning looks like for a hazard that could result in property damage if ignored.



# 3 Machine description

# 3.1 Components of the machine

Fig. 1: Components of the machine



- (1) Machine head
- (2) Outfeed roller
- (3) Stacker
- (4) Control
- (5) Foot button
- (6) Stand
- (7) Dirt suction container
- (8) Fusing station for knee lining (optional)
- (9) Clamp for knee lining (optional)
- (10) Sewing material surface
- (11) Control panel
- (12) Reel stand

# 3.2 Proper use

# **WARNING**



Risk of injury from live, moving and cutting parts as well as from sharp parts!

Improper use can result in electric shock, crushing, cutting and punctures.

Follow all instructions provided.



#### NOTICE

# Non-observance will lead to property damage!

Improper use can result in material damage at the machine.

Follow all instructions provided.

The machine may only be used with sewing material that satisfies the requirements of the specific application at hand.

The machine is intended only for use with dry sewing material. The sewing material must not contain any hard objects.

The needle thicknesses permissible for the machine are listed in the **Technical data** ( $\square$  *S. 123*) chapter.

The seam must be completed with a thread that satisfies the requirements of the specific application at hand.

The machine is intended for industrial use.

The machine may only be set up and operated in dry conditions on well-maintained premises. If the machine is operated on premises that are not dry and well-maintained, then further measures may be required which must be compatible with DIN EN 60204-31.

Only authorized persons may work on the machine.

Dürkopp Adler cannot be held liable for damages resulting from improper use.

# 3.3 Declaration of Conformity

The machine complies with European regulations ensuring health, safety, and environmental protection as specified in the declaration of conformity or in the declaration of incorporation.





# 4 Operation

The operating sequence consists of several different steps. Fault-free operation is necessary in order to achieve a good sewing result.

# 4.1 Preparing the machine for operation

#### **WARNING**



# Risk of injury from moving, cutting and sharp parts!

Crushing, cutting and punctures are possible.

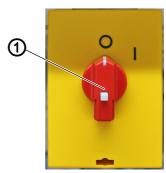
If possible, make preparations only when the machine is switched off.

Complete the following steps in preparation of sewing before starting to work:

- Inserting or changing the needle
- · Threading the needle thread
- · Threading the hook thread
- · Adjusting the thread tension

# 4.2 Switching on and off the machine

Fig. 2: Switching on and off the machine



(1) - Main switch



To switch the machine on and off:

- 1. Turn the main switch (1) to the I position.
- The machine starts up.
  The control and the control panel of the machine start up.
- ♥ The following appears on the control panel: WAITING FOR RESET
- 2. Press the STOP button.
- ♦ The following appears on the control panel: RESET



- 3. Press the STOP button.
- The machine performs a reference run and is afterwards ready for sewing.
- 4. Turn the main switch (1) to the **O** position.
- ♥ The machine switches off.

# 4.3 Operating the machine head

#### **WARNING**



# Risk of injury from sharp and moving parts!

Puncture or crushing possible.

If possible, operate the machine head only when the machine is switched off.



#### Information

The operation of the machine head (needle insertion or change, threading of needle thread and hook thread etc.) is described in the separately included Pegasus Operating Instructions.

The Pegasus Operating Instructions are included in the accessories of the machine.



# 4.4 Threading diagram



To access the threading diagram in the machine head:

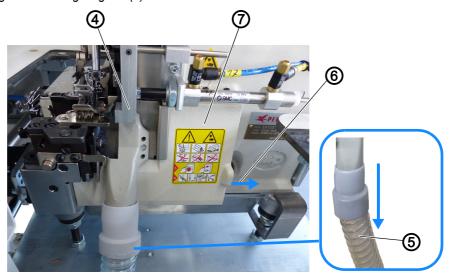


- 1. Activate threading mode ( p. 81) on the control panel.
- ♦ The machine is in threading mode.



- 2. Remove the fabric sliding plate ( p. 20).
- 3. Pull down the suction hose (5) to remove it.

Fig. 3: Threading diagram (2)



- (2) Edge guide in initial position
- (3) Suction hose

- (4) Slide to the right
- (5) Cover



### **Disturbance**

You will not be able to open the cover (7) if the pneumatic edge guide is in its initial position (4). You can briefly disconnect the compressed air supply  $(\square p. 18)$  to manually move the edge guide (8) towards the sewing foot.

- 4. Slide the cover (7) to the right (6).
- 5. The cover (7) opens towards the bottom.



Fig. 4: Threading diagram (3)

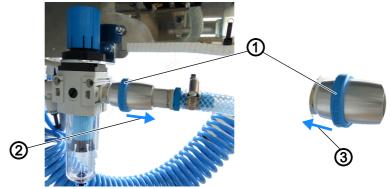


(6) - Edge guide

- (7) Threading diagram
- 6. The threading diagram (9) for the machine head is shown on the inside of the cover (7).
- The types of stitches are grouped by colors.
- To restore the machine head to sewing readiness after threading is complete:
  - 1. Fold up the cover (7).
  - ♥ The cover latches into place.
  - 2. Place the suction hose (5).
  - 3. Place the fabric sliding plate ( $\square$  *p. 20*).
  - 4. Connect the compressed air supply ( $\square$  *p. 18*).

# 4.4.1 Disconnecting the compressed air supply

Fig. 5: Disconnecting the compressed air supply



- (1) blue ring
- (2) in arrow direction

(3) - in arrow direction

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To disconnect the compressed air supply:



- 1. Pull the blue ring (1) found under the sewing table on the pneumatic system in arrow direction (2).
- ♦ The compressed air supply is disconnected.
- ♦ You can now move the edge guide (☐ p. 17) manually.



# **Important**

You need to keep the following in mind: Disconnecting the compressed air supply will return any such units as a connected stacker to their initial position.



To connect the compressed air supply:

- 2. Slide the blue ring (1) found under the sewing table on the pneumatic system in arrow direction (3).
- ♦ The compressed air supply is connected.



# 4.5 Disassembling and assembling the fabric sliding plate

#### **WARNING**



# Risk of injury from sharp and moving parts!

Puncture or crushing possible.

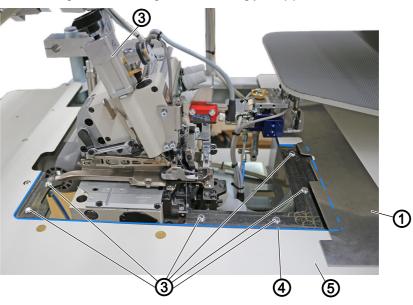
Do not put the machine back into operation until AFTER the fabric sliding plate has been assembled.

Fig. 6: Disassembling and assembling the fabric sliding plate (1)



- (1) Fabric sliding plate
- (2) Contour guide

Fig. 7: Disassembling and assembling the fabric sliding plate (2)



- (1) Fabric sliding plate
- (3) Magnets

- (4) Tabletop cut-out
- (5) Delivery table

The fabric sliding plate (1) is held in place in the tabletop cut-out (4) by the magnets (3).

The contour guide (2) is connected to the fabric sliding plate (1) and forms a unit that is removed/placed together.



# Disassembling the fabric sliding plate

To disassemble the fabric sliding plate:

- 1. Carefully pull the contour guide (2) along with the fabric sliding plate (1) up and off the magnets (3).
- 2. Swivel the fabric sliding plate (1) aside.
  - Set down the fabric sliding plate (1) on the delivery table (5).
- The bottom section of the machine head is now freely accessible (e.g. for threading/cleaning).

# Assembling the fabric sliding plate

To assemble the fabric sliding plate:

- 1. Pick up the fabric sliding plate (1) carefully.
- 2. Insert the fabric sliding plate (1) into the tabletop cut-out (4).
- ♦ Make sure it is engaged by the magnets (3).



# 4.6 Edge guide

#### WARNING



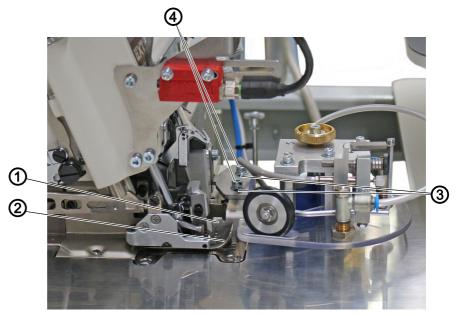
# Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Proceed with utmost caution when adjusting the settings and performing the function test.

## 4.6.1 Mechanical edge guide

Fig. 8: Mechanical edge guide



- (1) Edge guide
- (2) Sewing foot

- (3) Slotted hole
- (4) Screw



#### Proper setting of the mechanical edge guide

The mechanical edge guide (1) must be seated close to the sewing foot (2) to keep the fabric from sliding up between the sewing foot (2) and the mechanical edge guide (1) during sewing.



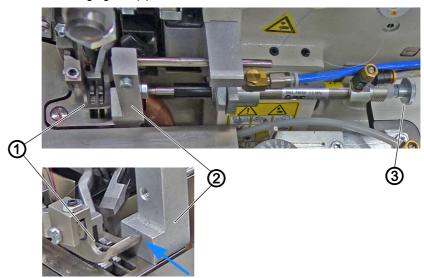
To adjust the mechanical edge guide:

- 1. Loosen the 2 screws (4).
- 2. Move the mechanical edge guide (1) towards the sewing foot (2) in the area of the slotted hole (3).
- 3. Tighten the 2 screws (4).



# 4.6.2 Pneumatic edge guide (optional)

Fig. 9: Pneumatic edge guide (1)



- (1) Sewing foot
- (2) pneumatic edge guide

(3) - Adjusting wheel



## Proper setting of the pneumatic edge guide

The pneumatic edge guide (2) must be seated close to the sewing foot (1) to keep the fabric from sliding up between the sewing foot (1) and the sewing material guide (2) during sewing.



To adjust the pneumatic edge guide:

- 1. Loosen the adjusting wheel (3).
- 2. Slide the edge guide (2) up close (blue arrow) to the sewing foot (1).
- 3. Tighten the adjusting wheel (3).

Fig. 10: Sewing material guide (2)



(1) - Sewing foot

(2) - pneumatic edge guide

As the pneumatic edge guide (2) is extendable, it can be used for guiding and trimming the edge of the material. In this setting, the pneumatic edge guide (2) will move away from the sewing foot (1) (blue arrow).





#### Information

The equipment option pneumatic edge guide makes it possible to place and overedge a pocket bag between trousers part and lining. The seam section up to the pocket end is sewn manually; the remaining seam section is sewn fully automatically.

The section sewn manually is determined by parameter 10 of the seam function CLOSE FEED ( $\square$  *p.* 67).

At the end of this section, the transport unit lowers, the pneumatic stop moves to the sewing foot, and the seam control is taken over by the contour guide.

# 4.7 Contour guide

#### **WARNING**



Risk of injury from sharp and moving parts!

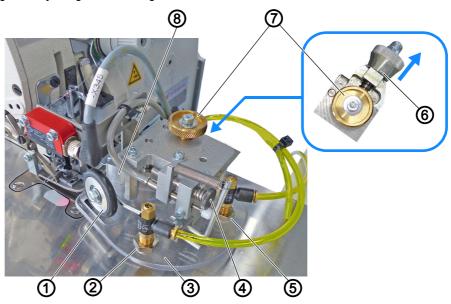
Puncture or crushing possible.

Proceed with utmost caution when adjusting the settings and performing the function test.



#### 4.7.1 Adjusting the contour guide

Fig. 11: Adjusting the contour guide



- (1) Help roller
- (2) Blow-on air nozzle
- (3) Contour guide
- (4) Adjusting wheel for the help roller pressure
- (5) Blow-out air nozzle
- (6) Adjusting wheel for adjusting the height of the contour guide
- (7) Adjusting wheel for the fine adjustment of the material height
- (8) Edge guide in the contour guide

The height-adjustable contour guide (3) ensures that the sewing material is positioned and guided evenly in front of the sewing head. The height of the contour guide (3) can be adjusted with the adjusting wheel for adjusting the height of the contour guide (6) to match the thickness of the sewing material.

The help roller (1) ensures that the sewing material is precisely fed up to the edge guide (8) in the contour guide (3). At the same time, the material is guided towards the edge guide (8) by the blow-on air nozzle (2).

The fly blow-out nozzle (5) is used when the crotch seam is sewn from the hem. Blowing out prevents folding over and unintentional sewing of material in the fly/seat seam.

#### Adjusting the height of the contour guide

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To adjust the height of the contour guide:

- 1. Pull the adjusting wheel for adjusting the height of the contour guide (6) in the direction of the arrow.
- 2. Turn the adjusting wheel for adjusting the height of the contour guide (6) to one of the 4 catch positions.
  - Position 1: lowest height
  - Position 4: greatest possible height



## Adjusting the fine adjustment of the contour guide

To adjust the fine adjustment of the contour guide:

- 1. Turn the adjusting wheel for the fine adjustment of the material height (7).
  - Material height low: turn clockwise.
  - Material height high: turn counterclockwise.

### 4.7.2 Adjusting the help roller

Fig. 12: Adjusting the help roller



- (1) Edge guide in the contour guide
- (2) Help roller
- (3) Tilt direction

- (4) Help roller rod
- (5) Screw
- (6) Adjusting wheel for the help roller pressure

#### Adjusting the pressure of the help roller

To adjust the pressure of the help roller:

- 1. Turn the adjusting wheel for the help roller pressure (6).
  - Greater help roller pressure (2): turn clockwise.
  - Lower help roller pressure (2): turn counterclockwise.

#### Adjusting the inclination of the help roller



# **Proper setting**

The help roller (2) should be slightly tilted towards the edge guide (1) in the contour guide. This helps the transport of the sewing material.

To adjust the inclination of the help roller:

- 1. Loosen the screw (5).
- 2. Slightly turn the help roller rod (4) to position it in the tilt direction (3).
- 3. Tighten the screw (5).





#### Information

The help roller should be activated approx. 15 cm before the seam end to keep the fabric edge from running out at the seam end.

You can use the machine parameters on the control panel ( $\square$  *p. 80*) to program the contour guide.

## 4.8 Differential feed

#### **WARNING**



# Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Proceed with utmost caution when adjusting the settings and performing the function test.

The differential feed provides for a perfect fit by partially incorporating additional fullness in the top or bottom layer of fabric.

# 4.8.1 Fullness distribution controlled by the stepper motor

Fig. 13: Fullness distribution controlled by the stepper motor (1)



(1) - Sewing head

(2) - Stepper motor for differential top feed

The stepper motor for the differential top feed (2) is a positioning drive and located above the sewing table on the right side of the sewing head (1).



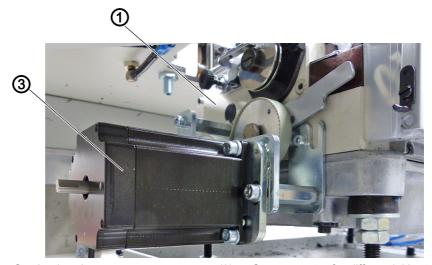


Fig. 14: Fullness distribution controlled by the stepper motor (2)

(1) - Sewing head

(3) - Stepper motor for differential bottom feed

The stepper motor for the differential bottom feed (3) is located under the sewing table on the left side of the sewing head (1).

Controlled by the stepper motor, the fullness distribution can be programmed and allows for a programmed retrieval of additional fullness in the top and bottom layer of fabric.

The entire seam can be divided in up to 5 freely selectable seam sections. Parameters can be set individually for each section. The activation of additional fullness always applies to the selected section to which you wish to add fullness.

A distinction is made between:

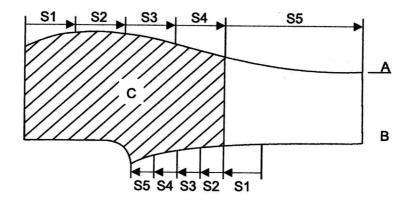
- Top feed
  - Setting seam-specific parameters ( p. 60)
  - Pre-seams ( p. 74)
- Differential feed
  - Setting seam-specific parameters ( p. 60)
  - Pre-seams ( p. 74)

You can select additional fullness to incorporate additional fullness in all 5 sections of the seam. Fullness is used when fabric is changed in the same program sequence, but with slightly more/less fullness across all activated fullness sections of the seam.



# **Alteration of fullness**

Fig. 15: Alteration of fullness (1)



In the sewing area, the trousers part is subdivided into seam sections:

Seam	Section	Basic setting [cm]
A	S1	15
	S2	30
	S3	45
	S4	60
	S5 (Remaining length of the trousers)	255
В	S5	10
	S4	20
	S3	30
	S2	40
	S1 (This section has to be determined by trial for every workpiece!)	Remaining section from photocell to knee lining (normally 2 - 7 [cm])
Knee lining C	(Seam A) S1-S4	150
	(Seam B) S5-S2	100



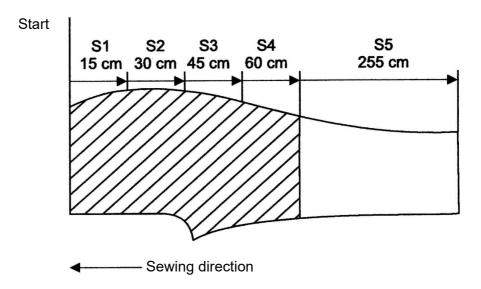
You can define the following settings for each of these seam sections ( $\square$  *p.* 60):

- · Length of the section
- Presetting of the corresponding fullness (quantity) via the control
- Activation/deactivation of the individual section
- · Function Low speed for differential feed
- Function Pressure for top feed
- Switch between sewing start at the hem and sewing start at the waistband for differential feed

# **Examples of section subdivisions**

1) Side seam, sewing start at the waistband:

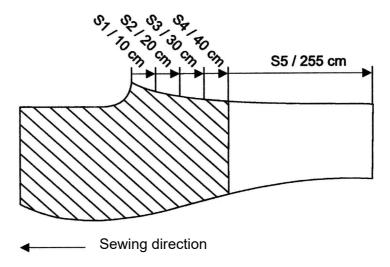
Fig. 16: Example (1)





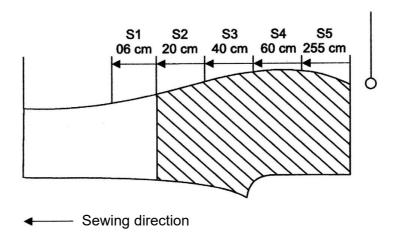
2) Crotch seam, sewing start at the waistband/fly:

Fig. 17: Example (2)



3) Side seam, sewing start at the hem. Feeding position when using the optional fusing station:

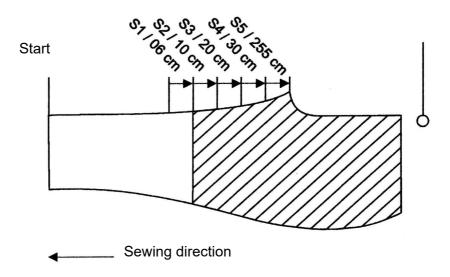
Fig. 18: Example (3)





4) Crotch seam, sewing start at the hem. Feeding position when using the optional fusing station:

Fig. 19: Example (4)



You can set the value ranges for the fullness as follows - separately for differential feed and top feed:

- Basic setting of fullness if the function Top Feed is switched on.
- Fullness (quantity) for an individual section to be set separately.
   The individual section has to be activated for the setting to become effective.
- The length of an individual section along which fullness is to be distributed.
- The function SEW AT LOW SPEED (differential feed only).
- The function SLIGHT FOOT PRESSURE (top feed only).



## 4.9 Operating the fusing station

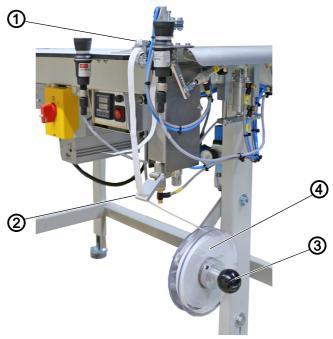


#### Information

A detailed description of how to operate the fusing station can be found in the instructions for use of the A-senco TR-81 Universal Temperature Controller. The instructions for use of the A-senco TR-81 Universal Temperature Controller are included in the accessories of the machine.

# 4.9.1 Inserting/changing the tape

Fig. 20: Inserting/changing the tape (1)



- (1) Flap
- (2) Guide

- (3) Handle of the tape holder
- (4) Tape with backing material

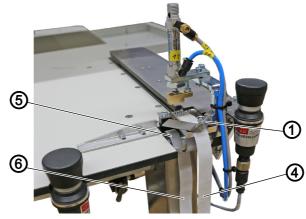


#### To insert the tape:

- 1. Forcefully pull on the handle of the tape holder (3) and pull off the support plate on the right.
- 2. Insert a new roll of tape with backing material (4).
  - Make sure the entire roll turns counterclockwise when being unwound.
  - Make sure that the transparent adhesive side of the tape with backing material (4) faces forward.
- 3. Slide the right support plate back onto the shaft and engage it.
- 4. Feed the tape with backing material (4) through the guide (2).

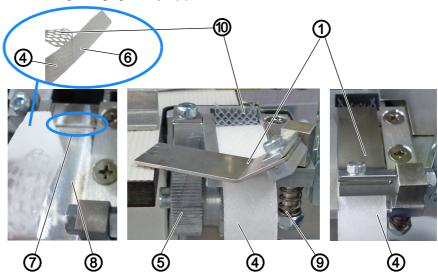


Fig. 21: Inserting/changing the tape (2)



- (1) Flap
- (4) Tape with backing material
- (5) Transport roller
- (6) Backing material

Fig. 22: Inserting/changing the tape (3)



- (1) Flap
- (4) Tape with backing material
- (5) Transport roller
- (6) Backing material

- (7) Slot
- (8) Slot
- (9) Spring
- (10) Transparent tape



- 5. Turn the flap (1) up and to the side by pressing the spring (9).
- 6. Remove the tape with backing material (4) from the backing material (6).
- 7. Slightly bend the backing material (6) and feed it into the slot (7).
- 8. Insert the tape with backing material (4) into the slot (8).
- 9. Turn the transport roller (5) manually to guide the backing material (6) downward behind the transport roller (5).
- 10. Check the position of the tape with backing material (4) in the slot (8) and engage the flap (1) above it.



# 4.9.2 Switching on the fusing station

Fig. 23: Switching on the fusing station



(1) - Main switch

(2) - Toggle switch



To switch the fusing station on and off:

- 1. Turn the main switch (1) to the I position ( $\square$  *p. 15*).
- ♥ The machine switches on.
- 2. Turn the toggle switch (2) to the I position.
- The toggle switch (2) illuminates.

#### 4.9.3 Adjusting the temperature



#### **Important**

# The upper value:

PV = actual value and display Indicates the current heating value.

### The lower value:

SV = target value and status indicator Indicates the preset heating value, alternating with Low Alarm.



To adjust the temperature:

- 1. Switch on the fusing station ( p. 35).
- \$\to\$ The temperature controller displays the current temperature.
- 2. Press the SET button until the display shows Su.
- 3. Press the putton.
- \$\Bar{\pi}\$ The actual value indicator shows a lower value.
- The longer you press the button, the faster the value changes.
- 4. Press the button.
- The actual value indicator shows a higher value.
- The longer you press the button, the faster the value changes.



#### 4.9.4 Fusing knee lining and front trousers

#### **WARNING**

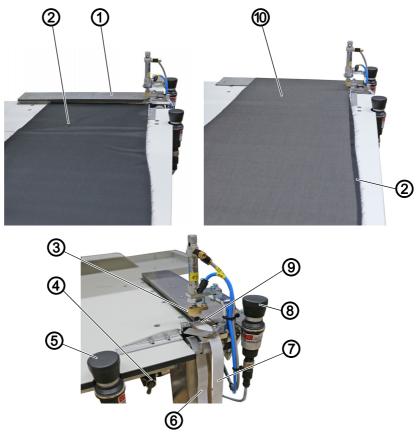


# Risk of injury from hot fusing stamp!

Risk of burns.

Do not touch the area around the fusing station as the lower stamp is very hot.

Fig. 24: Fusing knee lining and front trousers



- (1) Knee lining clamping device
- (2) Knee lining
- (3) Upper stamp
- (4) Toggle switch
- (5) Button for lowering the knee lining clamping device
- (6) Backing material
- (7) Tape with backing material
- (8) Button for triggering the fusing process
- (9) Transparent tape
- (10) Front Trousers



#### **Important**

To keep the knee lining from shifting during sewing, you need to set a fusing point with the fusing station that will keep the lining in place at the correct position. Only after this point has been set will you be able to sew the knee lining from the hem to the waistband edge.



To fuse the knee lining and the front trousers:

1. Position the knee lining (2) under the knee lining clamping device (1).



- 2. Press the button for lowering the knee lining clamping device (5).
- The knee lining clamping device (1) is lowered and clamps the knee lining (2) at the edge of the hem.

  At the same time, the tape with the backing material (7) is advanced, separating the transparent tape (9) from the backing material (6).
- 3. Position the front trousers (10) and align them with the knee lining (2).
- When positioning the knee lining (2), make sure it protrudes in accordance with the desired fullness.
- 4. Press the button for triggering the fusing process (8).
- The upper stamp (3) moves down while the lower heated stamp moves up. The stamps press the front trousers (10) and the knee lining (2) together with the transparent tape (9) positioned in between and fix the tape in place.

Following the preset fusing time, the upper stamp (3) and the knee lining clamping device (1) are raised automatically, while the lower stamp is lowered.

Knee lining (2) and front trousers (10) have been fused and can be positioned for overedging.



#### Information

The toggle switch (4) can be used to set 2 different positions for the lower, heated stamp.

- 1. **Toggle switch (4) flipped to the left:**The lower, heated stamp is down and moves up for the fusing operation.
- 2. **Toggle switch (4) flipped to the right:**The lower, heated stamp moves up and will remain in the up position for the duration of the work process.



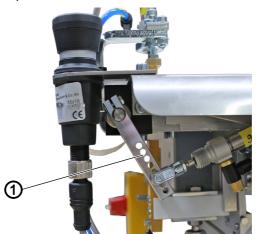
### **Important**

In position 2 (toggle switch (4) flipped to the right), the knee lining may sustain damage or melt if the temperature is too high.



# 4.9.5 Adjusting the tape feed

Fig. 25: Adjusting the tape feed



(1) - Lever

You can use the lever (1) to adjust the amount of tape that will be advanced.



To adjust the tape feed:

1. Use the lever (1) to select the desired hole:

more tape: select higher holeless tape: select lower hole



#### 4.9.6 Cleaning the stamp

#### **WARNING**

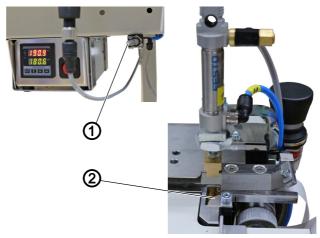


# Risk of injury from hot fusing stamp!

Risk of burns.

Allow the stamp to cool down before cleaning it.

Fig. 26: Cleaning the stamp



(1) - Toggle switch

(2) - lower stamp



To clean the stamp:

- 1. Flip the toggle switch (1) to the right.
- The lower stamp (2) moves up and will remain in the up position for the duration of the work process.



#### **Important**

In this position the knee lining may sustain damage or melt if the temperature is too high.



- 2. Clean the stamp.
- 3. Flip the toggle switch (1) to the left.
- ♦ The lower stamp (2) moves down.



# 4.10 Light barrier



### **Important**

Adjustments to the light barrier are made with the sewing unit switched on.

#### WARNING



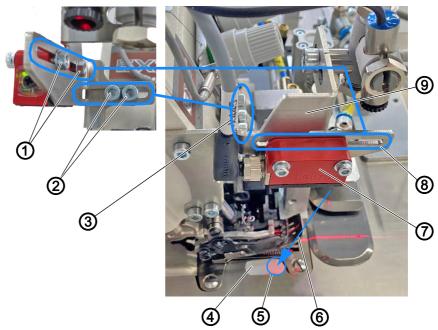
# Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Proceed with utmost caution when adjusting the settings and performing the function test.

# 4.10.1 Aligning the light barrier

Fig. 27: Aligning the light barrier



- (1) Screw
- (2) Screw
- (3) Slotted hole
- (4) Reflecting foil
- (5) tn the front part of the reflecting foil, concentrically from the circle
- (6) Light beam
- 7) Light barrier
- (8) Slotted hole
- (9) Holder



# **Proper setting**

Set the light barrier (7) such that it is positioned in front of the needle at the height of the edge trimmer knife. The alignment of the light beam (6) must be such that it hits the reflecting foil (4) concentrically from the circle (5) in the front part of the reflecting foil.

- Automatic sewing start later: move the light barrier (7) in the slotted hole (8) with the sewing direction.
- Automatic sewing start earlier: move light barrier (7) in the slotted hole (8) against the sewing direction.



To align the light barrier:

- To be on the safe side, activate threading mode ( $\square$  p. 81).
- 2. Loosen the screws (1).
- 3. Move the light barrier (7) in the area of the slotted hole (8) with the sewing direction.
- 4. Tighten the screws (1).
- 5. Loosen the screw (2).
- 6. Move the holder (9) with the light barrier (7) in the area of the slotted hole (3).
- 7. Tighten the screw (2).

### 4.10.2 Adjusting the light barrier intensity

Fig. 28: Adjusting the light barrier intensity



- (1) Potentiometer
- (2) LED





#### **Proper setting**

The LED (3) on the potentiometer (1) lights up orange permanently.



To adjust the intensity of the light barrier:

- 1. Turn the potentiometer (1) counterclockwise as far as it will go.
- ♦ The LED (2) lights up green. Green = light barrier has power and is active.
- 2. Turn the potentiometer (1) clockwise until the LED (3) starts flashing.
- 3. Continue to turn the potentiometer (1) until the LED (3) is lit orange reliably and permanently.
- ♦ The process is now complete.



#### Information

If the LED is not lit, you should

clean, readjust or replace the light barrier.



#### 4.11 Stacker

#### **WARNING**



### Risk of injury from moving parts!

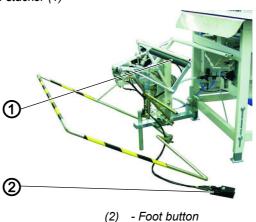
Crushing possible.

While stacking is in progress, DO NOT reach into the working area of the flip/clamping/alternating stacker.

#### 4.11.1 Operating the flip stacker

The finished workpieces are stacked on the flip stacker (1). The workpieces are stacked and clamped in place and can be removed with the foot button (2) pressed down. The stacker is activated by a control pulse. The pneumatic functions can be found in the pneumatic circuit diagram.

Fig. 29: Operating the flip stacker (1)



(1) - Flip stacker

# Stacking the sewing material



To stack the sewing material:

- Press the button.
- The stacking process is executed once.



#### Removing stacked pieces

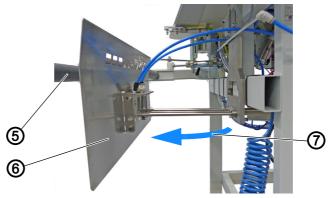


To remove stacked pieces:

- 1. Press the foot button (2) for opening the flip stacker (1) and keep it there.
- ♦ The flip stacker opens.
- 2. Remove the stacked pieces.

# 4.11.2 Operating the clamping stacker

Fig. 30: Operating the clamping stacker (1)



- (3) Stacker tray
- (4) Clamping stacker

(5) - Arrow direction

The clamping stacker (6) is used to stack the finished sewn products during the ongoing sewing process. By default, the clamping stacker (6) is equipped with two arms for the stacker tray (5). A stacker with an extension for the stacker tray is available for large/long sewing material  $(\square p. 110)$ .

# Stacking the sewing material manually



To stack the sewing material:

- 1. Press the **[7]** button.
- The stacking process is executed once.



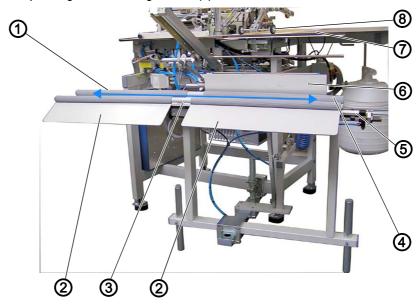
### Information

You can use the seam-specific parameters on the control panel ( $\square p.$  67) to program the stacker.



### 4.11.3 Operating the alternating stacker

Fig. 31: Operating the alternating stacker (1)



- (1) Alternating stacker
- (2) one site/position
- (3) Delivery table
- (4) Sliding edge

- (5) Track
- (6) Stacking clamp
- (7) Sewing table
- (8) Outfeed roller

On the alternating stacker (1), the finished workpieces are stacked separately - either sorted by right and left workpieces or for large storage of several bundles. For this purpose, the alternating stacker (1) moves back and forth in arrow direction along the track (5) on its delivery table (3) after each sewing process.

As soon as the workpiece's center of gravity is shifted over the edge of the sewing table (7) by the outfeed roller (8), the stacking clamp (6) extends and fixes the workpiece in place at the sliding edge (4) of the delivery table (3). Additional blowing nozzles on the stacking clamp (6) ensure that the workpieces are cleanly deposited via the delivery table (3) of the alternating stacker (1).

The sewing material can be removed directly from the delivery table (3) of the alternating stacker (1).

#### Stacking the sewing material manually



To stack the sewing material:

- 1. Press the F7 button.
- ♦ The stacking process is executed once.



#### Information

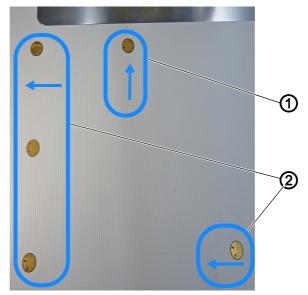
You can use the program parameters on the control panel ( $\square$  *p.* 67) to program the stacker.



# 4.12 Air nozzles

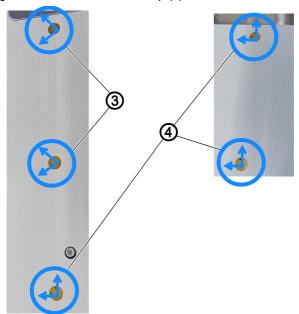
# 4.12.1 Adjusting the air nozzles in the tabletop

Fig. 32: Adjusting the air nozzles in the tabletop (1)



(1) - Air nozzles facing the sewing head (2) - Air nozzles facing the stacker

Fig. 33: Adjusting the air nozzles in the tabletop (2)



(3) - Alignment: approx. 08:00 and 10:00 o'clock (4) - Alignment: approx. 12:00 and 09:00 o'clock



# **Proper setting**

- The air nozzles facing the stacker (1)
- Alignment: approx. 08:00 and 10:00 o'clock (3) supports transport to the stacker.



- The air nozzles facing the sewing head (2)
- Alignment: approx. 12:00 and 09:00 o'clock (4) supports the feed of material to the sewing head during the sewing process.

### 4.12.2 Adjusting the air supply

Fig. 34: Adjusting the air supply



(1) - Sewing material



# **Proper setting**

The air supply to the air nozzles must be adjusted to the corresponding thickness of the sewing material.



To adjust the air supply to the air nozzles:

- 1. Place the sewing material (1) on the sewing table above the air nozzles.
- 2. Test the air supply using the  $Input/Output\ Test\ (\square\ p.\ 76)$  menu item.
- The air should slightly lift the sewing material, allowing you to push the sewing material towards the sewing head/stacker using merely 2 fingers/almost automatically.



#### Information

If the sewing material is **not** pushed towards the stacker/sewing head, the air nozzles in the tabletop need to be adjusted ( $\square$  *p. 45*) accordingly.

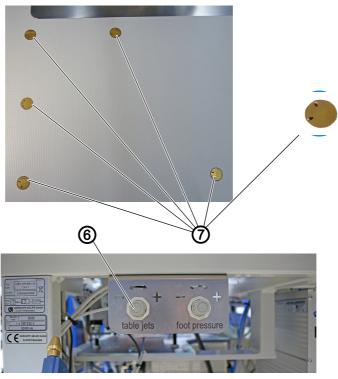
#### 4.12.3 Adjusting the air supply intensity

The air nozzles in the tabletop help the sewing material to be fed properly during the ongoing sewing process. Lifting and advancing the sewing material towards the stacker reduces the risk of the sewing material becoming caught.



# Adjusting the air supply using the adjusting wheel

Fig. 35: Adjusting the air supply intensity (2)



(2) - Adjusting wheel

(3) - Air nozzles



To adjust the air supply intensity using the adjusting wheel:

- 1. Turn the adjusting wheel (6).
  - Blowing air more intense: turn towards +
  - Blowing air less intense: turn towards -



# Information

You can use the seam-specific program parameters on the control panel  $(\square p. 68)$  to program the air nozzles (7).



### 4.13 Transport station

#### WARNING

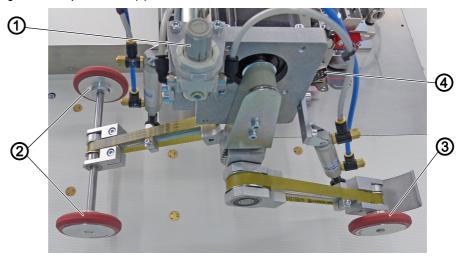


### Risk of injury from moving parts!

Crushing possible.

While transport is in progress, DO NOT reach into the working area of the transport station.

Fig. 36: Transport station (1)



- (1) Pressure setting of the transport roller
- (3) Puller

(2) - Roll-out device

(4) - Sewing foot

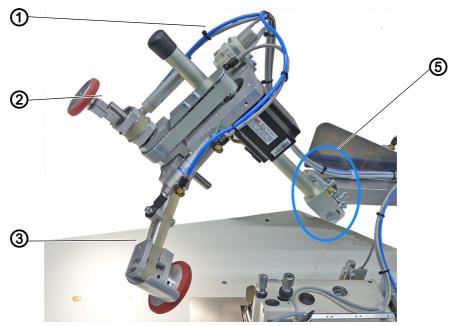
The transport station is composed of the puller (3), which is attached at the front level with the sewing foot (4), and the roll-out device (2), which is attached at the rear. These are brought into position for their use when lowering.

The transport roller of the puller (3) exerts pressure on the sewing material from the top and can be regulated with the pressure setting of the transport roller (1). The puller (3) can thus be adjusted perfectly to the thickness of the sewing material, ensuring that the sewing material is guided properly during the sewing process. The sewing material is fed to the roll-out device (2) along the sewing head on the side. In addition, the puller prevents material blockage.

The roll-out device (2) is used to safely position the sewing material for chain cutting and for subsequently rolling it out into the stacker. This ensures for short pieces that the stacker will be able to clamp the material thanks to the extended roll-out position.



Fig. 37: Transport station (3)

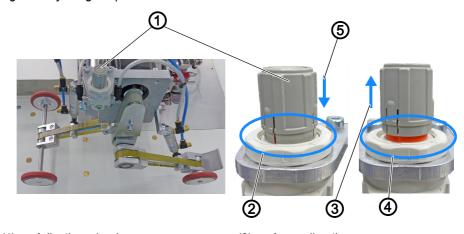


- (1) Adjusting wheel
- (2) Roll-out device/outfeed roller
- (3) Puller

(5) - Rods including joint for additional lifting/lowering

# 4.13.1 Adjusting the puller

Fig. 38: Adjusting the puller



- (1) Adjusting wheel
- (2) locked

- (3) Arrow direction
- (4) released
- (5) Arrow direction



To adjust the pressure for the puller:

- 1. Pull the adjusting wheel (1) up in arrow direction (3).
- ♦ The adjusting wheel (1) is released (4).
- ♦ Indicated by the red marking.



2. Turn the adjusting wheel (1).

• More pressure: Turn clockwise

• Less pressure: Turn counterclockwise

- 3. Push the adjusting wheel (1) down in arrow direction (5).
- ♦ The adjusting wheel (1) is locked

#### 4.13.2 Operating the puller

The photocell identifies the deviation of the fabric contour from the ideal contour and regulates, if necessary, the speed of the puller.

#### Puller speed

- Puller faster: increase the value if the workpiece curls at the edge guide.
- Puller slower: reduce the value if the workpiece is pushed away from the edge guide.

The basic speed of the puller can be altered via the input field.



#### Information

You can use the seam-specific parameters on the control panel ( $\square$  *p. 66*) to program the puller.

#### 4.13.3 Operating the roll-out device

The outfeed roller transports the trousers part on the worktable from the sewing head to the stacker.



#### Information

You can use the seam-specific parameters on the control panel ( $\square p. 67$ ) to program the roll-out device/outfeed roller.

#### 4.14 Sewing

### **WARNING**



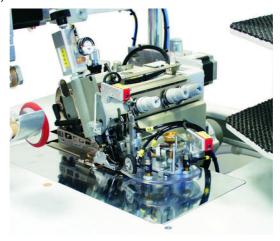
Risk of injury from sharp and moving parts!

Puncture or crushing possible.

Only qualified specialists may operate the machine.



Fig. 39: Sewing (1)



The operation of the sewing machine head (needle insertion, threading of needle thread and hook thread etc.) is described in the separately included Pegasus Operating Instructions.

The Operating Instructions are included in the accessories of the sewing unit.



#### Information

#### Feed of the sewing material

To allow the sewing material to be fed more easily in the area of the sewing head, you should activate the function  $Table\ blowing\ (\square\ p.\ 45/\square\ p.\ 80)$  and the roll-out device/outfeed roller  $(\square\ p.\ 48/\square\ p.\ 66)$  at the beginning of the seam.

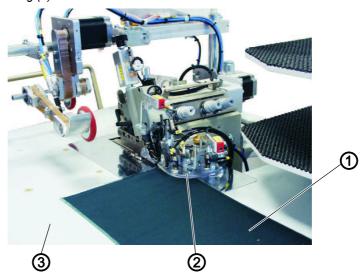


To insert the workpiece and start the sewing process:

- 1. Deposit the sewing material on the delivery table.
- 2. Use the control panel ( $\square$  *p.* 55) to call up the desired seam program ( $\square$  *p.* 57).



Fig. 40: Sewing (1)



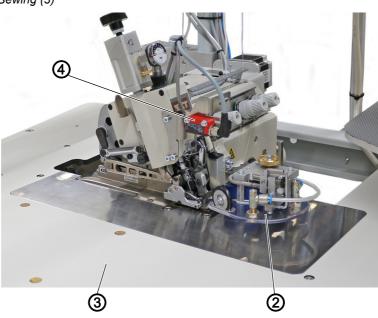
- (1) Sewing material
- (2) Contour guide

(3) - Tabletop



3. Place the sewing material (1) on the tabletop (3) from the right and position it straight under the contour guide (2).

Fig. 41: Sewing (3)



- (2) Contour guide
- (3) Tabletop

(4) - Light barrier

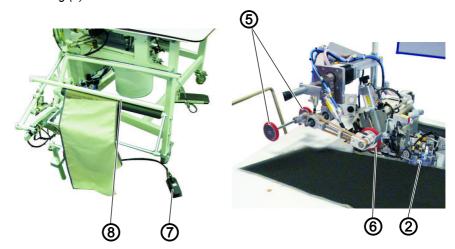


# **Important**

- Sewing begins automatically as soon as sewing material has been pushed under the light barrier (4).
- ♦ The contour guide (2) is lowered.
- ♦ The seam program is executed.



Fig. 42: Sewing (3)



- 2) Contour guide
- (5) Outfeed roller
- (6) Puller

- (7) Foot button
- (8) Stacker clamp
- The puller (6) lowers and supports the feed of the sewing material.
- When the sewing material leaves the area of the light barrier, the seam is finished and the outfeed roller (5) lowers.
- The contour guide (2) and the puller (6) move up.
- The outfeed roller (5) feeds the sewing material out of the sewing area.
- ♦ The stacker clamp (8) moves to the front.
- ♦ The outfeed roller (5) moves up again.
- ♦ The finished workpieces are stacked (☐ p. 42).
- 4. Press the foot button (7) and manually remove the pieces from the stacker.

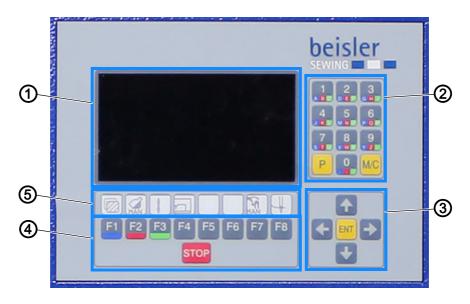




# 5 STEHA programming

# 5.1 STEHA control panel

Fig. 43: Control panel



- (1) Screen
- (2) Numeric keypad
- (3) Arrow keys

- (4) Function keys
- (5) Symbol bar

All settings in the software for the machine are performed using the control panel.



Button	Explanation	Setting
M/C	Call up memory store (programs M10 - 20)	Д р. 57
9	Direct program selection/input of numeric values	
F3	Set seam-specific parameters Select seam parameters/select machine function	□ p. 59
F1	Call up access level 2 of the user menu:  Set global parameters  Seam sequences  Pre-seams  Seam start mode  Activate the sewing motor  Reset daily piece counter  Input-Output Test	□ p. 68
F2	Switch on manual sewing	🚇 р. 79
F4	Select machine parameters	□ p. 80
F5	not assigned	
F7	Activate stacking	□ p. 80
F8	Switch on threading mode	🚇 p. 81
ENT	Enter key Confirm entry	
Р	Select programming mode	□ p. 81



#### 5.1.1 Starting up the screen



To start up the screen:

- 1. Turn on the main switch of the machine ( $\square$  *p. 15*).
- The machine starts up.
   The control initializes.
   The start screen is displayed.

# 5.2 Navigating the control panel

You navigate the control panel by using the function keys, the arrow keys and the numeric keypad.

The function keys and the buttons of the numeric keypad can be used to open the various menus and programs.

The function keys are assigned new function in the submenus. The symbols linked to the functions are shown in a bar at the bottom of the screen.

# 5.3 Calling up programs

The memory store of the program control can hold up to 20 programs (M01 - M20). Each program can be assigned a maximum of 8 seams with a corresponding seam number.

The seams are distinguished by the control parameters they were assigned during programming as well as by the control functions that have been activated.

#### Programs set at the factory

The sewing unit has been pre-programmed with ten programs at the factory.

Program number	Seam number	Sequence
M01	4	Hind trousers: crotch seam - sewing start at the waistband
M02	5	Hind trousers: side seam - sewing start at the waistband
M03	6/7	Front trousers: crotch and side seam alternately lining on top - sewing start at the waistband
N04	5/4	Front trousers: side and crotch seam alternately lining below - sewing start at the waistband
M05	4/5	Front trousers: crotch and side seam alternately lining below - sewing start at the waistband (program for sewing units with fusing station and photocell 15)



Program number	Seam number	Sequence
M06	5/4	Front trousers: side and crotch seam alternately lining below - sewing start at the hem (program for sewing units with fusing station and photocell 15)
M07	7/5	Front trousers: side seam with pocket bag lining on top and below alternately (with movable stop)
M08	4/6	Front trousers: crotch seam, lining below and on top alternately
M09	1	Follow-up sewing
M10	134135	Program with pre-seams
M11 - 20		Spare



#### Information

#### **Pre-seams**

Waistband seam, fly seam and hem seam can be overedged separately.

The properties of the pre-seams are set in a dedicated parameter list. These settings will not come into effect unless "pre-seams" have been activated in the seam program.

#### Crotch seams and side seams

Crotch and side seam can either be overedged in individual, separate sewing operations or processed in a combined sewing operation with seam alteration.

For this purpose, the relevant pre-programmed seams are activated on the control panel by rapid access.

#### Creating an identical stitch formation

If the stitch pattern for the crotch seam and the side seam is supposed to be identical, the knee lining must always be fed in the same position (always below).

To do so, the trousers part is positioned first at the waistband and then on the hem (only possible with fusing station).

#### Calling up a program



To call up the programs M01 - M09:

- 1. Use the buttons and on the numeric keypad to enter the number of the desired program.
- The program appears on the main screen.



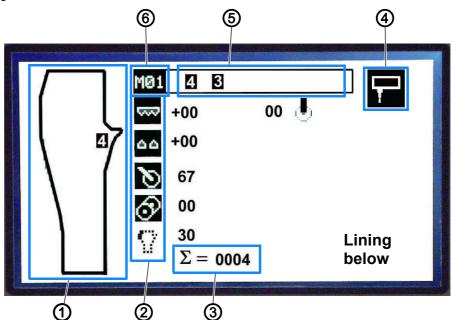


To call up the programs M10 - M20:

- 1. Press the button.
- 2. Use the buttons \_\_\_\_\_ \_\_\_\_ on the numeric keypad to enter the numbers of the desired program one at a time.
- ♦ The program appears on the main screen.

#### 5.4 Main screen

Fig. 44: Main screen



- (1) Seam pattern of active seam in program
- (2) Symbols of seam functions
- (3) Daily piece counter
- (4) Start mode of the sewing unit (manual/light barrier)
- (5) Seam numbers
- (6) Description of the program

Activated functions are highlighted in black. Deactivated functions are not highlighted in black.

#### Calling up seam numbers



To call up a seam number (5):

- 1. Use the arrow keys or to switch to the desired seam numbers.
- The seam number has been selected and highlighted in black.



### 5.4.1 Setting seam-specific parameters

The parameters of a program can be adjusted in three steps:

- Quick adjustment of the main parameters using the input fields
- Access to the entire parameter list
- · Activate or deactivate parameters

#### Seam-specific parameters at access level 1

Icon	Explanation	Setting
<b>∞</b>	Top feed Increase or reduce the value	□ p. 62
۵۵	Differential feed Increase or reduce the value	□ p. 62
8	Puller Parameter 14, speed	□ p. 66
ᢒ	Outfeed roller Enter parameter 30, roller transport length	□ ρ. 66
<b>(</b> )	Puller speed Parameter 20, slow at hip curve	□ p. 68

Activated functions are highlighted in black.

Deactivated functions are not highlighted in black.



#### **Important**

To achieve the correct fullness distribution, the transport properties of differential feed and top feed must be adapted to the material of the knee lining.

This adjustment is necessary if fullness is added during the sewing of the lining.

#### Quick adjustment of the main parameters using the input fields



To set the main parameters using the quick adjustment input fields:

- 1. Press the buttons or until the icon of the assigned input field is highlighted in black.
- 2. Use the arrow keys or to directly increase or reduce the parameters.
- 3. To adopt the value, press the P button.



#### Access to the entire parameter list



To adjust the value on the parameter list:

- 1. Press the buttons or fee until the icon of the assigned input field is highlighted in black.
- 2. Press the button.
- ♦ The parameter list associated with the seam opens.
- 3. Use the arrow keys or to select the desired parameter.
- 4. To adjust the parameter:
  - Use the arrow keys or to directly increase or reduce the parameters.
  - Or: Enter the two- or three-digit value on the numeric keypad.
- 5. To adopt the value, press the P button.

### **Activating or deactivating parameters**



To activate or deactivate a parameter:

- 1. Press the buttons or until the icon of the assigned input field is highlighted in black.
- 2. Press the button.
- The parameter list associated with the seam opens.
- 3. Press the [58] button.
- ♦ The parameter has been activated/deactivated.
- 4. To adopt the value, press the P button.



#### Seam-specific parameters at access level 1



# Top feed

The quick adjustment of the top feed in the program can be used to correct the fullness distribution. The adjustment can be made by changing the position of the top feed dog relative to the main feed dog.

This setting will only affect the section of the seam that was activated for fullness.

Value range: -59 to +59



To activate/deactivate the pressure function:

- 1. Press the 🛅 button and keep it pressed.
- 2. Use the buttons 1 to 5 on the numeric keypad to enter the number of the corresponding section.
- The pressure function has been activated/deactivated for the selected section.

#### 00

#### **Differential feed**

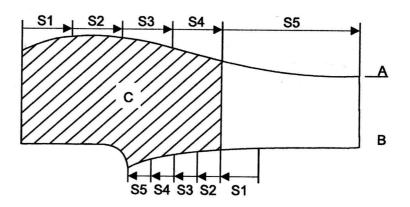
The position of the differential feed dog relative to the main feed dog is changed.

This setting will only affect the section of the seam that was activated for fullness.

Value range: -59 to +59

### Alteration of fullness

Fig. 45: Alteration of fullness (1)





In the sewing area, the trousers part is subdivided into seam sections:

Seam	Section	Basic setting [cm]
А	S1	15
	S2	30
	S3	45
	S4	60
	S5 (Remaining length of the trousers)	255
В	S5	10
	S4	20
	S3	30
	S2	40
	S1 (This section has to be determined by trial for every workpiece!)	Remaining section from photocell to knee lining (normally 2 - 7 [cm])
Knee lining C	(Seam A) S1-S4	150
	(Seam B) S5-S2	100

For every of these seam sections the length of the seam line can be varied, and the corresponding fullness (quantity) can be preset via the control.

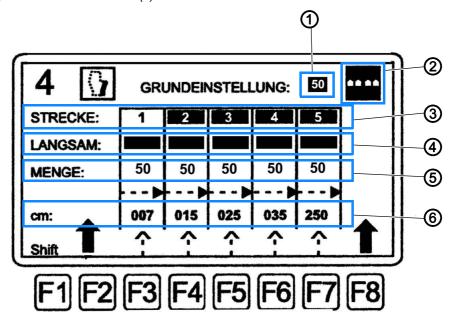


# To adjust the fullness:

- 1. Press the Button until the cursor is positioned on the program.
- 2. Press the button.
- The parameter list associated with the seam opens.



Fig. 46: Alteration of fullness (2)



- (1) Basic setting
- (2) Individual sections adjustable
- (3) Sections activated/deactivated
- (4) Slow
- (5) Quantity
- (6) Length in cm
- Input field Basic setting (3) is highlighted in black and can be altered.
- 3. Use the arrow keys or to select the desired parameter.
- 4. To adjust the parameter:
  - Use the arrow keys or to directly increase or reduce the parameters.
  - Or: Enter the two- or three-digit value on the numeric keypad.
- 5. To adopt the value, press the P button



To activate/deactivate the function Individual sections adjustable (2):

- 1. Press the Button.
- The parameter has been activated/deactivated:
  - If Individual sections adjustable (2) is activated (highlighted in black), the settings Quantity (5) and Length in cm (6) are active for each section (3).
  - If Individual sections adjustable (2) is deactivated (not highlighted in black), the basic setting (1) is active along the entire seam.





#### To activate/deactivate a section:

1. To activate/deactivate a section, press the function key 🔼 to underneath.





- The section is activated (highlighted in black) or deactivated (not highlighted in black).
  - If a section is activated, the value changed in the main menu will only be adopted in this activated section.
  - If a section is deactivated, the value changed in the main menu will not be adopted.



To activate/deactivate the function Slow (4):

- 1. Press the button and keep it pressed.
- 2. Use the buttons 1 to 5 on the numeric keypad to enter the number of the corresponding section.
- The function Slow (4) has been activated/deactivated for the selected section.
  - If a black bar has been selected at Slow (4), the sewing speed will be reduced in this section.
  - If no black bar has been selected at Slow (4), Maximum speed is active.



To change the seam pattern:

- 1. Press the E button.
- Switch between sewing start at the hem and sewing start at the waistband.





# **Puller speed**

The photocell identifies the deviation of the fabric contour from the ideal contour and regulates, if necessary, the speed of the puller.

- If the trousers parts are shifted aside from the stop during the feed, the speed is too high.
- If the trousers parts curl up at the stop, the speed is too low.

The basic speed of the puller can be altered via the input field.

#### **Parameter Puller**

Parameter	Description	Explanation
14	Puller Speed	Main parameter/ Basic setting of the speed for the main seam.
15	Higher puller speed	Increasing the speed steps with dark photocell 16, if the workpiece curls up at the stop.
16	Lower puller speed	Reducing the speed steps with bright photocell 16, if the workpiece is shifted aside from the stop.
17	Section until puller down	The section until the puller lowers after the sewing start
18	Section with puller down	Length of the section during which the puller is lowered.
19	Section puller lifting	Length of the section during which the puller is lifted to release the fabric.
33	Until help roller down	Section after the sewing start after which the contour roller lowers Start at the waistband = photocell 13 Start at the hem = photocell 15
34	Duration help roller down	The length of the section under the guidance of the lowered contour roller.





#### **Outfeed roller**

The parameter alters the length of the seam section over which the outfeed roller transports the trousers part on the worktable from the sewing head to the stacker.

#### **Parameter Roller**

Parameter	Description	Explanation
25	Section until roller down	Seam section after the sewing start until the outfeed roller lowers; only required for heavy material
26	Section with roller down	Length of the section over which the outfeed roller is lowered at the sewing start.
27	Until roller stop/kettup	Section over which the outfeed roller transports to stop the material and to separate the chain.
28	Duration of roller stop/kettup	Time during which the outfeed roller stops for separating the chain.
30	Roller transport length	Main parameter/ Basic setting of the outfeed roller transport length until the workpiece is delivered to the stacker.
31	Until stacker start	Time until the stacker starts after the outfeed roller has lifted. (Fix the workpiece in place until the stacker has taken it over safely)
32	Stacker mode	Setting of the different stacking operations (stacker types) 00 = Function switched off 01 = Switch function on 02 = not assigned 03 = alternating stacker
10	Close Feed	Function of the transport unit (puller and outfeed roller) 00 = the transport unit always remains at its lower position 01-99 = the transport unit lowers after the section which has been set here



#### Information

The equipment option Pocket bag makes it possible to place and overedge a pocket bag between trousers part and lining. The seam section up to the pocket end is sewn manually; the remaining seam section is sewn fully automatically.

The section sewn manually is determined by parameter 10 of the seam function CLOSE FEED.

At the end of this section, the transport unit lowers, the pneumatic stop moves to the sewing foot, and the seam control is taken over by the contour guide.





# Low puller speed at the hip curve

The parameter alters the basic value of the puller speed when stitching down the hip curve.

The puller speed can be adapted depending on the shape of the hip curve. In conjunction with photocell 15.

# Parameter Low puller speed at the hip curve

Parameter	Description	Explanation
20	Low speed at hip curve	Main parameter/ Basic setting of the puller speed for the hip curve.
21	Low speed up to hip curve	The section sewn with the puller speed of the main seam until the speed is reduced at the hip curve. (Reference point is photocell 15)
22	Duration of low speed at hip curve	The section sewn at low speed in the hip curve.
35	Up to fly blowing	Length of the section after bright photocell 13, until the fly is blown.
36	Duration of fly blowing	Duration of the blowing operation.
11	Until blade swivels out	Transport length from photocell 13 or 15 until the blade swivels out.
44	Swivel puller	This function is only required for the crotch seam.  01 = Function switched on  00 = Function switched off
45	Puller after hip curve	Section for which the puller remains lowered after DURATION OF LOW SPEED AT HIP CURVE (parameter 22). Puller speed as set in parameter 14.



# **Parameter Fly Roller**

Parameter	Description	Explanation
37	Until fly roller down	Required for pre-seam 3 for a better guidance of the fly curve.
38	Duration of fly roller down	Duration for which the fly roller will remain down.

# 5.5 Functions of access level 2



To enter access level 2:

- 1. Press the button.
- ♦ Operator level 2 opens.



Button	Explanation	Setting
F1	Set global parameters	□ p. 69
F2	Seam sequences	🚇 ρ. 72
F3	Pre-seams	🚇 ρ. 74
F4	Seam start mode	Д р. 76
F5	Activate the sewing motor	🚇 ρ. 76
F7	Reset daily piece counter	Д р. 76
F8	Input-Output Test	□ p. 76

# 5.5.1 Setting the global parameters

Global parameters are values that control the basic functions of the sewing unit.

Changing global parameters will result in changes to all stored seam programs.

#### **NOTICE**

#### Property damage may occur!

Improper alterations of the values can negatively affect the production quality or damage components of the machine.

The global parameters of the sewing unit have been set to their optimal values and adapted to one another at the factory. Changes may only be made by qualified specialists.



To open the global parameters:

- 1. Press the 🚺 button.
- Operator level 2 opens.



- 2. Press the 🚺 button.
- ♥ The parameter list opens.
- 3. Use the arrow keys or to select the desired parameter.
- 4. To adjust the parameter:
  - Use the arrow keys or to directly increase or reduce the parameters.
  - Or: Enter the two- or three-digit value on the numeric keypad.
- 5. To adopt the value, press the P button.
- 6. Press the P button.
- ♦ Access level 2 is displayed.
- 7. Press the P button.
- ♦ Access level 1 is displayed.

Parameter	Description	Explanation
01	FZ Beginning of downtime	Time delay between loading process (light barrier recognizes dark) and sewing start
02	FZ Dark -> Foot DOWN	Time until the sewing foot is lowered and the sewing operation starts (setting depends on the sewing material).
03	Thread lifting seam beginning	Number of stitches with released needle thread before it is tensioned again.
04	Duration of kettup at the beginning	Length of the kettup function at the seam beginning in cm. Three-thread machine heads require a longer suction process. Switch off to save energy.
05	Section to be restitched	Section where follow-up stitches are sewn if the workpiece is manually removed from the sewing equipment during sewing (e.g. in order to separate the chain).
06	Duration of kettup at the end	Duration of the kettup function at the seam end. Switch off to save energy.
07	Thread lifting at the end	Number of stitches until the needle thread is released at the seam end.



Parameter	Description	Explanation		
08	FZ Blocking time at the end	Time delay for inserting a new workpiece (blocking time after bright light barrier).		
09	Photocell 15 On/Off	Switching status of photocell F15 (only ava able with optional fusing station). 01 = Switch function on 00 = Switch function off An error message will appear if no light bar rier has been installed.		
10	Stacker -> outfeed roller up	Time the outfeed roller is lowered and fixes the workpiece in place until it is taken over by the stacker.		
11	Contour scanning time	Response time for altering the puller speed (photocell 16)		
12	Remaining thread monitor EMPF	Setting of the remaining thread monitor 00 = Function switched off 01 = High sensitivity 99 = Low sensitivity (the setting depends on the thread used)		
13	EFKA positions up	Needle position down at the sewing start in the program, needle position up when threading.		
14	Stitch length	Synchronization of the lowering position of the puller and the stitch length of the sewing unit.   p. 71		
15	Top Feed Max Pos	Maximum fullness. Safety value. The value must <i>not</i> be altered.		
16	Differential Max Pos	Maximum fullness. Safety value. The value must <i>not</i> be altered.		
20	Max. speed	Safeguard of the maximum sewing speed		
29	C-head Off/On mode	Refers to the fusing station.  00 = Fusing station off  01 = Fusing station on		
37	Clamp closed	Time stamp fusing station		

# Stitch length

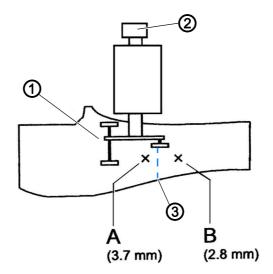


# Important

A stitch length alteration has an effect on all seam sections.



Fig. 47: Stitch length



- (1) Puller
- (2) Handwheel

(3) - Lowering position



To adjust the stitch length:

- 1. Set the stitch length at the handwheel (2). (step 6 corresponds to a stitch length of approx. 3.2 mm)
- 2. Mark the desired lowering position (3) of the puller (1).



- Setting the stitch length parameter to the lowering position of the puller (1) (tolerance range 2 cm):
  - If the puller lowers too early (Pos A):
     Decrease the value
  - If the puller lowers too late (Pos B): Increase the value

### 5.5.2 Seam sequences

In a program, individual seams and seam sequences can be deactivated and altered, respectively.

A deactivated seam is not deleted, but can be called up and activated again at any time.

This function only takes effect in the program that is currently called up.

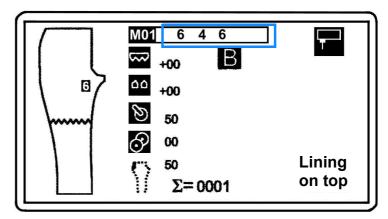


To define the seam sequence:

- 1. Select the program.
- 2. Press the button.
- ♦ Operator level 2 opens.
- 3. Press the Ea button.



Fig. 48: Seam sequence 1



- 4. Use the buttons \_\_\_\_ \_\_\_ on the numeric keypad to enter the number of the first seam.
- 5. Use the arrow key to select the next place.
- 6. Use the buttons \_\_\_\_ \_\_\_ on the numeric keypad to enter the number of the next seam.



To insert a seam between two places:

1. Use the arrow keys or to select the seam number in front of which you wish to insert a new place.

Fig. 49: Seam sequence 2



- 2. Press the button.
- A new place appears between the seam numbers.

Fig. 50:



- 3. Use the buttons \_\_\_\_ \_\_\_ on the numeric keypad to enter the number of the seam.
- 4. To adopt the seam sequence, press the P button.



To delete a seam in the seam sequence:

1. Select the program.

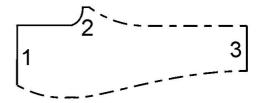


- 2. Press the 🚺 button.
- ♥ Operator level 2 opens.
- 3. Press the Ea button.
- 4. Use the arrow keys or to select the seam number you wish to delete.
- 5. Press the uttons.
- ♥ The seam is deleted.
- 6. To adopt the seam sequence, press the P button.

#### 5.5.3 Pre-seams

The sewing unit 1265-7 also allows for the sewing of pre-seams (waistband seam (1), crotch seam (2) and hem seam (3)).

Fig. 51: Pre-seams





To open the parameter list Pre-seams:

- 1. Press the button.
- ♦ Operator level 2 opens.
- 2. Press the 🔼 button.

Parameter	Description	Explanation		
1	Pre-seam speed	Sewing speed		
	Pre-seam top feed	Basic setting fullness		
	Pre-seam differential	Basic setting fullness		
	Pre-seam with roller	Length in [cm] until the help roller lowers, max. 99 [cm]		
2	Pre-seam speed	Sewing speed		
	Pre-seam top feed	Basic setting fullness		
	Pre-seam differential	Basic setting fullness		
	Pre-seam with roller	Length in [cm] until the help roller lowers, max. 99 [cm]		



Parameter	Description	Explanation	
3	Pre-seam speed	Sewing speed	
	Pre-seam top feed	Basic setting fullness	
	Pre-seam differential	Basic setting fullness	
	Linked with seam number	The 3 <sup>rd</sup> pre-seam can be linked with a main seam in order to access its seam parameters.	

# Ţ

## Important

The linked main seam must not be used anywhere else in the program.



#### 5.5.4 Seam start mode

Two start modes of the sewing sequence are available:

- T Start by photocell (automatic sequence)
- Start by foot pedal



To change the start mode:

- 1. Press the 🚺 button.
- ♦ Operator level 2 opens.
- 2. To toggle between the two start modes, press the [54] button.
- Start by foot pedal off
- Start by foot pedal on

## 5.5.5 Activating the sewing motor



To activate the sewing motor:

- 1. Press the button.
- ♦ Operator level 2 opens.
- 2. Press and hold the [5] button.

The sewing motor keeps running as long as you press the <sup>[5]</sup> button.

## 5.5.6 Resetting the daily piece counter



To reset the daily piece counter:

- 1. Press the button.
- ♦ Operator level 2 opens.
- 2. Press the **[7]** button.
- ♦ The daily piece counter is reset to 0.

#### 5.5.7 Input-Output Test

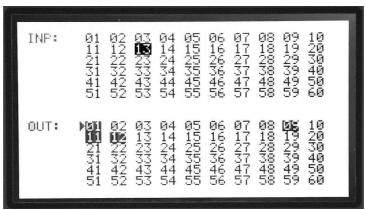
The input-output test can be used to select the inputs and outputs of the sewing unit control for troubleshooting and for checking individual machine steps.

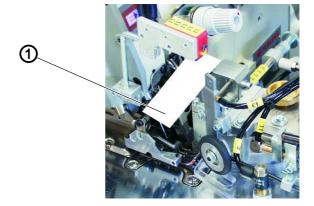


The outputs (Out) are called up and tested separately. The corresponding inputs (Inp) are indicated with the active output.

Activated inputs/outputs are marked with highlighted identification numbers.

Fig. 52: Input-Output Test





(1) - Paper

#### Input test

The inputs are tested directly.

Example: Photocell 13



To test an input:

1. Push a piece of paper (1) between photocell 13 and the support plate.



⋄ Input no. 13 is highlighted in black.

## **Output test**

- 1. Press the button.
- ⇔ Operator level 2 opens.
- 2. Press the Button.
- 3. Use the arrow keys or to select the column of numbers.



- 4. Use the arrow keys or to select the identification number.
- 5. Press the button.
- The identification number is highlighted in black, and the output is activated.
- 6. Press the button.
- ♥ The output is deactivated.

## Input elements

Signal	Input no.	Explanation
S02	02	GND jumper on photocell 15, if without hem recognition "FZ 15"
S04	04	Push button lining clamp
S05	05	Push button fusing start
S09	09	Thread monitor
S13	13	Photocell program start
S15	15	Photocell hem recognition
S16	16	Photocell contour control



## **Output elements**

Valve	Output no.	Explanation	Setting	
Y01	01	Sewing foot	lifting	
Y02	02	Contour guide blowing	On	
Y03	03	Contour guide	Up/Down	
Y04	04	Zipper fly blowing	On	
Y05	05	Puller	Down/Up	
Y06	06	Outfeed roller	Down/Up	
Y07	07	Swivel puller	On	
Y08	08	Transport unit	Up/Down	
Y09	09	Swivel blade	On	
Y10	10	Tension lifting	On	
Y11	11	Help roller	Down/Up	
Y12	12	Sewing foot: high pressure	On	
Y13	13	Fly roller (optional)	On	
Y14	14	Fusing stamp	Down/Up	
Y15	15	Lining clamp	Down/Up	
Y16	16	Movable stop	backwards/forwards	
Y26	26	Move stacker (optional)	On	
Y27	27	Stacker start	Pulse	
Y30	30	Table blowing	On	
Y31	31	Kettup suction	On	
Y32	32	Dirt suction	On	

## 5.6 Manual sewing

The function "manual sewing" is used for testing the sewing head and the sewing equipment as well as for improving on faulty sewing. "Manual sewing" can be called up via direct access.



To activate the function:

- 1. Press the E button.
- ♦ The symbol is displayed on the screen.
- ∜ You can control the sewing speed by pressing the pedal (if available).





To deactivate the function:

- 1. Press the E button.
- ♦ The display shows the main screen.

## 5.7 Machine parameters

The settings determine the sewing behavior of the sewing unit.



To open the machine parameters:

- 1. Press the 4 button.
- ♥ The machine parameters open.

Parameter	Description	Explanation
01	Sewing at low speed	Reduced sewing speed during the sewing start (soft start).
02	Sewing at high speed	Main sewing speed.
03	Sewing start at low speed	Section of decelerated sewing start (soft start).
05	Section until contour guide down	Seam section sewn from the sewing start until the contour guide is lowered.
06	Until table blowing on	Seam section sewn from the sewing start until the blowing nozzles of the working plate are supplied with compressed air.
07	Duration of table blowing	Section over which a workpiece is additionally transported by compressed air.
09	Reduced speed	Reduced speed of the sewing head switched on with the function SEWING AT LOW SPEED for difficult seam sections (S1 - S5) (reference point is light barrier F13 or F15).

## 5.8 Stacking



To activate the stacking process:

- 1. Press the **[7]** button.
- ♦ The stacking process is carried out.



## 5.9 Threading mode



To activate the threading mode:

- 1. Press the **F8** button.
- ♦ The threading mode is activated.

## 5.10 Programming menus

The programming menus allow for the creation of programs and the corresponding seams. It is generally possible to create a completely new program.

Other options are:

- to copy a program provided by the manufacturer to a free storage location in the memory store and adapt it to the conditions of your production.
- to copy an already modified program to a free storage location in the memory store and then further adapt it.

The following steps are required for creating a new program:

- 1. Allocate a free storage location
- 2. Add seams or copy existing seams to a program
- 3. Configure seams (adapt them to the production)

Button	Explanation	Setting
F1	INIT Parameters	□ p. 82
F2	Memory card Current seam -> Card Card -> Current seam Machine memory -> Card Card -> Machine memory Memory card format	□ p. 84
F3	Diagnostics     Service test     Sewing head test	Ω p. 87
F5	Additional programs	🚇 p. 90



#### 5.10.1 Navigating the programming levels

When the programming menus are called up, the system always shows the menu you worked with last. The number preceding the functions indicates which programming level has been called up. In order to call up a certain function you have to scroll back in the programming menus and the service menus.



To open the programming menus:

1. Press the P button.



To scroll one step back:

1. Press the arrow key

## 5.10.2 Allocating a free storage location

Storage locations M01 - M10 have been assigned programs at the factory. Storage locations M11 - M20 are available.



To allocate a free storage location:

- 1. Press the Mo button.
- 2. Use the buttons on the numeric keypad to enter the two-digit numeric designation.

#### 5.10.3 INIT Parameters

- EPROM Global Parameters
- EPROM Seam Parameters
- Copy seam number (program number)
- · Delete seam program

#### **EPROM Global Parameters**



To open the EPROM Global Parameters:

- Press the button.
- The programming level opens.
- 2. Press the button.
- ♥ The function INIT opens.
- 3. Press the 🛅 button.
- The function EPROM Global Parameters opens.



#### **EPROM Seam Parameters**



To open the EPROM Seam Parameters:

- 1. Press the P button.
- ♦ The programming level opens.
- 2. Press the button.
- ♥ The function INIT opens.
- 3. Press the Ea button.
- ♦ The function EPROM Seam Parameters opens.

## Copying the seam number (program number)



#### **Important**

The active program is overwritten.



To copy a seam number:

- 1. Press the P button.
- ♦ The programming level opens.
- 2. Press the button.
- ♦ The function INIT opens.
- 3. Press the Button.
- ♥ The function COPYING OF SEAM NO. opens.
- 4. Use the buttons \_\_\_\_ on the numeric keypad to enter the number of the program to be copied.
- 5. Press the button.
- ♦ The copying operation is carried out.
- ♦ The display shows OK PLEASE WAIT!
- The display field of the program shows the program number with the seams.

#### Deleting a seam program



#### Information

A program consists of several seams.

The contents of these seams, the seam parameters, can be deleted completely.

The program currently called up cannot be deleted.





## To delete a seam program:

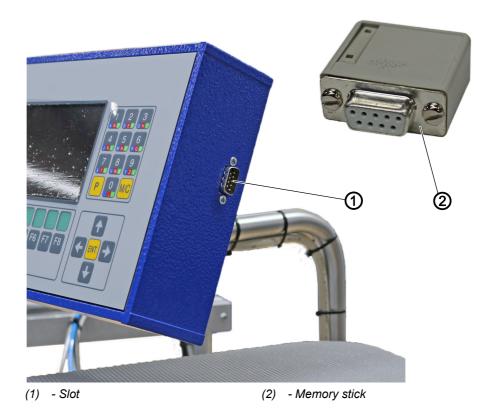
- 1. Press the P button.
- 2. Press the 🚺 button.
- ♦ The function INIT opens.
- 3. Press the 4 button.
- ♦ The function DELETE SEAM opens.
- 4. Use the buttons \_\_\_\_ \_\_\_ on the numeric keypad to enter the number of the program to be deleted.
- 5. Press the P button.
- ♦ The copying operation starts.
- ♦ The display shows a safety prompt: ARE YOU SURE?
- 6. Press the button.
- ♦ The new setting is saved.
- The display returns to the selection menu.
- ♦ The delete operation is carried out.
- ♦ The display shows OK PLEASE WAIT!

#### 5.10.4 Memory card

- Current seam -> Card
- Card -> Current seam
- Machine memory -> Card
- Card -> Machine memory
- · Memory card format



Fig. 53: Memory card



## **Current seam -> Card (storing the data on the memory stick)**

The memory function gives you the option of saving only one selected program or of saving all programs.



To save a program in the memory store:

- 1. Plug the memory stick (2) into the slot (1) of the control panel.
- 2. Press the P button.
- ♦ The programming level opens.
- 3. Press the Ea button.
- ♦ The function MEMORY CARD opens.
- 4. Press the button.
- ♦ The function Current seam -> Card opens.
- 5. Press the button.
- ♦ The active seam is saved to the memory store.
- ♦ The display shows OK PLEASE WAIT!



To save all programs in the memory store:

1. Plug the memory stick (2) into the slot (1) of the control panel.



- 2. Press the P button.
- ♦ The programming level opens.
- 3. Press the Ea button.
- ♦ The function MEMORY CARD opens.
- 4. Press the Button.
- ♦ The function MACHINE MEMORY -> CARD opens.
- 5. Press the button.
- All programs are saved to the memory store.
- The display shows OK PLEASE WAIT!

# Card -> Current seam (data transfer from the memory card to the control)

Data secured on the memory stick can optionally be transferred to the control as an individual program or as a complete data pool of all programs.



#### **Important**

If the complete data pool of all programs is transferred to the control, all data is overwritten (even seams altered in the meantime).

Alterations of seams should therefore always be saved immediately as individual data backups on the memory stick.



To load a selected program from the memory store into the control:

- 1. Plug the memory stick into the slot of the control panel ( $\square$  *p. 85*).
- 2. Press the P button.
- ♥ The programming level opens.
- 3. Press the 🔼 button.
- ♦ The function MEMORY CARD opens.
- 4. Press the Button.
- ♦ The function CARD > CURRENT SEAM opens.
- 5. Press the button.
- ♦ The displayed program is transferred.
- The display shows OK PLEASE WAIT!





To load all programs from the memory store into the control:

- 1. Plug the memory stick into the slot of the control panel ( $\square$  *p.* 85).
- 2. Press the P button.
- ♦ The programming level opens.
- 3. Press the Ea button.
- ♦ The function MEMORY CARD opens.
- 4. Press the 4 button.
- ♦ The function CARD > MACHINE MEMORY opens.
- 5. Press the button.
- All programs are transferred.
- ♦ The display shows OK PLEASE WAIT!

#### **Memory card format**

If additional memory sticks (optionally available) are used for data backups, the storage medium has to be formatted before it can be used for the first time.

To format a storage medium:

- 1. Plug the memory stick into the slot of the control panel ( $\square$  *p. 85*).
- 2. Press the P button.
- ♥ The programming level opens.
- 3. Press the Ea button.
- ♦ The function MEMORY CARD opens.
- 4. Press the **[5]** button.
- ♦ The function MEMORY CARD FORMAT opens.
- ♦ The display shows a safety prompt: ARE YOU SURE?
- 5. Press the button.
- ♦ The formatting is carried out.
- ♦ The display shows OK PLEASE WAIT!

## 5.10.5 Diagnostics

The menu DIAGNOSTICS includes service functions for testing sewing units, aggregates as well as the initiators used for activating the aggregates.



## **NOTICE**

## Property damage may occur!

The tests involve the starting of individual machine aggregates or machine sequences. If components have been disassembled completely or partially or if they are not operational, machine components may be damaged.

Do not perform the test unless the machine is ready for operation. Only allow qualified specialists to perform the test.



To open the diagnostics menu:

- 1. Press the P button.
- ♥ The programming level opens.
- 2. Press the Button.
- ♦ The diagnostics menu opens.
- 3. Call up test functions.

Button 1	Button 2	Button 3	Explanation
F1	F1	F1	EEPROM 2K ( p. 89)
		F2	EEPROM 8K ( p. 89)
		F3	RAM 8K ( <i>p.</i> 89)
	F4		I/O Module long-term test ( p. 89)
	F5		I/O Analog output
	F6	F1	RS232 Test
		F2	I/O Adapter test
		F3	Communication test



Button 1	Button 2	Button 3	Explanation
F4	F1		Activate the sewing motor ( p. 89) (Actual speed is compared to the target speed of the sewing motor)
	F2		Sewing motor and puller (Test of the stepper motors)
	F3		Outfeed roller (Test of the roller transport length)
	F4		Top feed (Test of the top feed for proper feeding)
	F5		Differential (Test of the differential feed for proper operation)
	[F6]		Setpoint device (Test of the setpoint device)

### **Memory test**



#### **Important**

All data in the memory stores will be deleted.

## I/O Module long-term test

#### CAUTION



Risk of injury from outputs being switched automatically one after the other!

Crushing possible.

Proceed with utmost caution and keep a distance to moving machine parts when performing the test.

## Activating the sewing motor



To compare the actual speed with the target speed:

- 1. Call up the test Activate the sewing motor.
- Use the buttons on the numeric keypad to enter the speed.
- 3. Press the button.
- The motor starts, and the actual speed is measured and indicated.
- You can compare the measured speed with the check number.
- 4. Press the P button.
- ♥ The test is finished.



#### 5.10.6 Additional programs

## System update



To perform a system update:

- 1. Press the P button.
- ♥ The programming level opens.
- 2. Press the **5** button.
- ♦ The function ADDITIONAL PROGRAMS opens.
- 3. Press the Ea button.
- ♦ The function SYSTEM UPDATE opens.
- 4. Select the desired function:
  - Press the button for the function Eprom -> Card
  - Press the button For the function Card -> Eprom
  - Press the button if for the function Text -> Card
  - Press the button for the function Card -> Texts
  - Press the button [55] for the function RS 232 -> Card
- 5. Press the **button**.
- The following message appears on the screen: ARE YOU SURE?
- 6. Press the button.
- ♦ The system update is carried out.

### Language selection



To select the language of the menu navigation and of the notices shown on the display:

- 1. Press the P button.
- ♦ The programming level opens.
- 2. Press the **F5** button.
- ♦ The function ADDITIONAL PROGRAMS opens.
- 3. Press the 🔼 button.
- ♦ The function LANGUAGE SELECTION opens.



- 4. Select the desired language.
- ♥ The selected language is adopted.

#### Piece counter

The total quantity of workpieces sewn with the sewing unit is recorded by means of a counting function. This counting function cannot be reset to zero.



To call up the piece counter:

- 1. Press the P button.
- ♥ The programming level opens.
- 2. Press the **F5** button.
- $\$  The function <code>ADDITIONAL PROGRAMS</code> opens.
- 3. Press the 4 button.
- ♦ The function PIECE COUNTER opens.
- 4. Read the counter reading.





## 6 Maintenance

#### WARNING



## Risk of injury from sharp parts!

Punctures and cutting possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

#### **WARNING**



## Risk of injury from moving parts!

Crushing possible.

Prior to any maintenance work, switch off the machine or set the machine to threading mode.

This chapter describes maintenance work that needs to be carried out on a regular basis to extend the service life of the machine and achieve the desired seam quality.

Advanced maintenance work may only be carried out by qualified specialists.

#### **Maintenance intervals**

Work to be carried out	Operating hours				
	8	40	160	500	
Machine head					
Removing sewing dust and thread residues	•				
Check oil level		•			
First oil change			•		
Subsequent oil changes		every	2 years		
Control box					
Removing sewing dust and thread residues	•				
Air suction device					
Empty container	•				
Remove any sewing dust and thread residues below the sliding plate		•			
Pneumatic system		•			
Check the water level in the pressure regulator	•				
Clean the filter element in the compressed air maintenance unit				•	
Check the tightness of the system	•				



## 6.1 Cleaning

#### WARNING



## Risk of injury from flying particles!

Flying particles can enter the eyes, causing injury.

Wear safety goggles.

Hold the compressed air gun so that the particles do not fly close to people.

Make sure no particles fly into the oil pan.

## **NOTICE**

## **Property damage from soiling!**

Sewing dust and thread residues can impair the operation of the machine.

Clean the machine as described.

## **NOTICE**

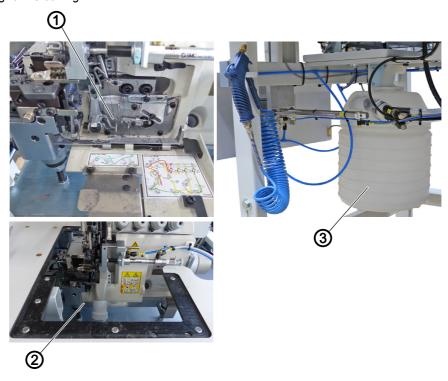
## Property damage from solvent-based cleaners!

Solvent-based cleaners will damage paintwork.

Use only solvent-free substances for cleaning.



Fig. 54: Cleaning



- (1) Thread guides(2) Under the fabric sliding plate

(3) - Suction container



#### To clean the machine:

- 1. Switch off the machine at the main switch.
- 2. Use a compressed air gun to blow out the entire area around the thread guides (1).
- 3. Use a compressed air gun to blow out the entire area under the fabric sliding plate (2).
- 4. Remove and empty the suction container (3).



## 6.2 Lubricating

#### CAUTION



### Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil. If oil has come into contact with your skin, wash the affected areas thoroughly.

#### **NOTICE**

#### Property damage from incorrect oil!

Incorrect oil types can result in damage to the machine.

Only use oil that complies with the data in the instructions.

#### **CAUTION**



#### Risk of environmental damage from oil!

Oil is a pollutant and must not enter the sewage system or the soil.

Carefully collect up used oil.

Dispose of used oil and oily machine parts in accordance with national regulations.

The machine is equipped with a central lubrication system. The bearings are supplied from the oil reservoir.

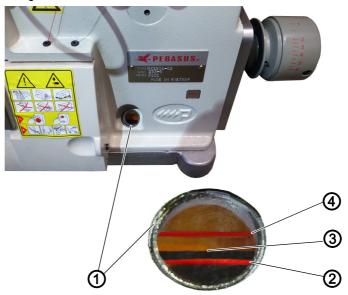
Information on refilling and the specification of the oil used is provided in the separately included operating Instructions of the sewing head manufacturer ( Operating Instructions Machine Head).

• Mobile Velcocite Oil No10



#### 6.2.1 Checking the lubrication of the machine head

Fig. 55: Checking the lubrication of the machine head



- (1) Inspection glass
- (2) Minimum level marking
- (3) Oil level
- (4) Maximum level marking



#### **Proper setting**

The oil level (3) is between the minimum level marking (2) and the maximum level marking (4).

To check the lubrication of the machine head:



- 1. Check the oil level indicator (3) at the inspection glass (1) every day.
- 2. Refill oil if the oil level (3) drops to/below the minimum level marking (2) ( Operating Instructions Machine Head).

## 6.3 Servicing the pneumatic system

#### 6.3.1 Adjusting the operating pressure

#### **NOTICE**

#### Property damage from incorrect adjustment!

Incorrect operating pressure can result in damage to the machine.

Ensure that the machine is only used when the operating pressure is set correctly.



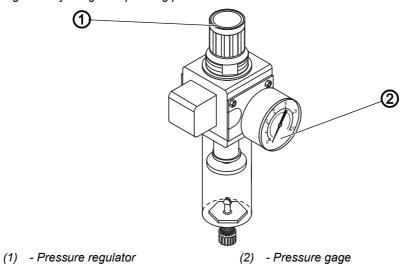
#### **Proper setting**

Refer to the **Technical Data** ( $\square$  *p. 123*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than  $\pm 0.5$  bar.

Check the operating pressure on a daily basis.



Fig. 56: Adjusting the operating pressure





To adjust the operating pressure:

- 1. Pull the pressure regulator (1) up.
- 2. Turn the pressure regulator until the pressure gage (2) indicates the proper setting:
  - Increase pressure = turn clockwise
  - Reduce pressure = turn counterclockwise
- 3. Push the pressure regulator (1) down.

## 6.3.2 Draining the water condensation

#### **NOTICE**

## Property damage from excess water!

Excess water can cause damage to the machine.

Drain water as required.

Water condensation accumulates in the water separator (2) of the pressure regulator.



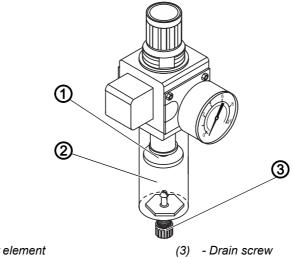
#### **Proper setting**

Water condensation must not rise up to the level of the filter element (1).

Check the water level in the water separator (2) on a daily basis.



Fig. 57: Draining the water condensation



- (1) Filter element
- (2) Water separator



#### To drain water condensation:

- 1. Disconnect the machine from the compressed air supply.
- 2. Place the collection tray under the drain screw (3).
- 3. Loosen the drain screw (3) completely.
- 4. Allow water to drain into the collection tray.
- 5. Tighten the drain screw (3).
- 6. Connect the machine to the compressed air supply.

## 6.3.3 Cleaning the filter element

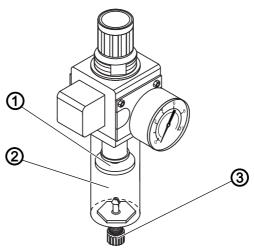
## **NOTICE**

Damage to the paintwork from solvent-based cleaners! Solvent-based cleaners damage the filter.

Use only solvent-free substances for washing out the filter tray.



Fig. 58: Cleaning the filter element



- (1) Filter element
- (2) Water separator
- (3) Drain screw



#### To clean the filter element:

- 1. Disconnect the machine from the compressed air supply.
- 2. Drain the water condensation ( p. 98).
- 3. Loosen the water separator (2).
- 4. Unscrew the filter element (1).
- 5. Blow out the filter element (1) using the compressed air gun.
- 6. Wash out the filter tray using benzine.
- 7. Tighten the filter element (1).
- 8. Tighten the water separator (2).
- 9. Tighten the drain screw (3).
- 10. Connect the machine to the compressed air supply.

#### 6.4 Parts list

A parts list can be ordered from Dürkopp Adler. Or visit our website for further information at: www.duerkopp-adler.com





## 7 Setup

#### WARNING



### Risk of injury from cutting parts!

Cutting injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety gloves

#### WARNING



## Risk of injury from moving parts!

Crushing injuries may be sustained while unpacking and setting up the machine.

Only qualified specialists may set up the machine. Wear safety shoes.

## 7.1 Checking the scope of delivery

The scope of delivery depends on your specific order. Check that the scope of delivery is correct after taking delivery.

## 7.2 Removing the transport locks

Remove all transport locks before setting up the machine:

- · Protective films
- Lashing straps on reel stand, stand, stacker, etc.
- Machine head fasteners



## 7.3 Adjusting the working height

#### **WARNING**



## Risk of injury from moving parts!

The tabletop can sink under its own weight when the screws on the stand bars are loosened. Crushing possible.

Ensure that your hands are not jammed when loosening the screws.

#### **CAUTION**

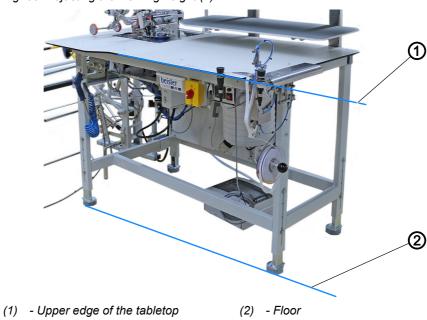


## Risk of musculoskeletal damage from incorrect setting!

The operator can sustain musculoskeletal damage if failing to comply with the ergonomic requirements.

Adjust the working height to the body height of the person who will operate the machine.

Fig. 59: Adjusting the working height (1)

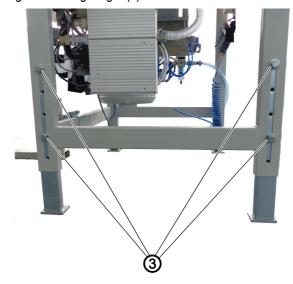


(Example: 1280)

The working height can optionally be adjusted between 815/850 mm and 1200 mm ( p. 123). The distance is measured from the upper edge of the tabletop (1) to the floor (2).

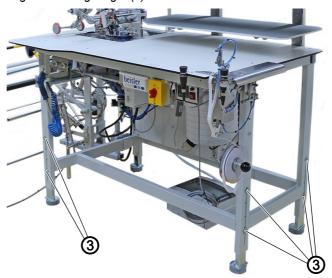


Fig. 60: Adjusting the working height (2)



(3) - Screws

Fig. 61: Adjusting the working height (3)



(3) - Screws (Example: 1281)



To adjust the working height:

- 1. Loosen the screws (3) on the stand bars.
- 2. Adjust the tabletop to the desired height.



## **Important**

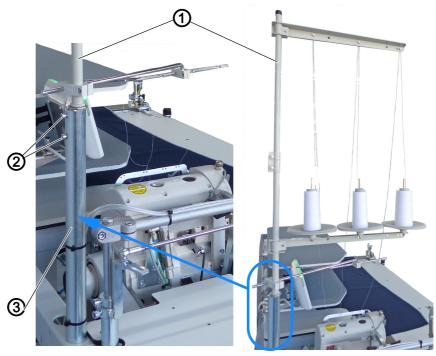
Pull out or push in the tabletop evenly at both sides to prevent it from jamming.

3. Tighten the screws (3).



# 7.4 Assembling the reel stand

Fig. 62: Assembling the reel stand



- (1) Reel stand tube
- (2) Screws

(3) - Holder



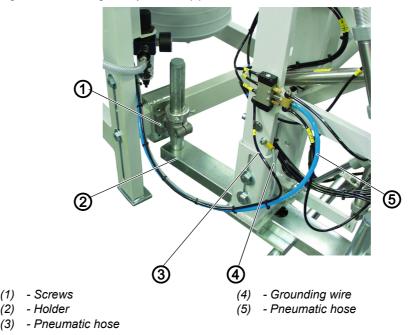
To assemble the reel stand:

- 1. Insert the reel stand tube (1) into the holder (3).
- 2. Tighten the screws (2).



## 7.5 Assembling the flip stacker (optional)

Fig. 63: Assembling the flip stacker (1)

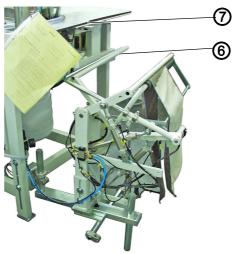




## To assemble the flip stacker:

- 1. Move the flip stacker with holder (2) up to the stand of the sewing unit.
- 2. Tighten the holder (2) to the stand of the sewing unit using the screws (1).
- Do not tighten the screws (1) all the way yet.

Fig. 64: Assembling the flip stacker (2)



(6) - Smoother

(7) - Edge of the tabletop

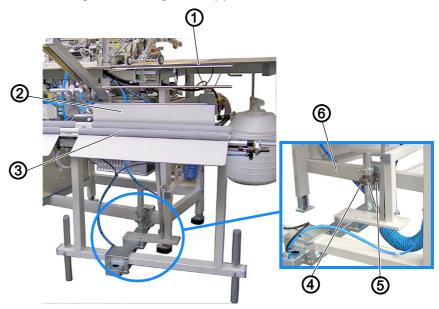


- 3. Align the flip stacker such that the smoother (6) is parallel to the edge of the tabletop (7).
- 4. Tighten the screws (1).
- 5. Tighten the grounding wire (4) to the flip stacker.
- 6. Fit pneumatic hose (3) and (5) onto the pneumatic distributor.



## 7.6 Assembling the alternating stacker (optional)

Fig. 65: Assembling the alternating stacker (1)



- (1) Edge of the tabletop
- (2) Stacking clamp
- (3) Alternating stacker
- (4) Holder
- (5) Screws
- (6) Stand of the sewing unit

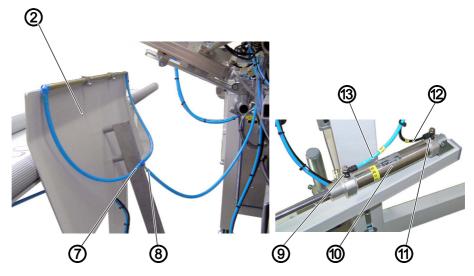


#### To assemble the alternating stacker:

- 1. Move the alternating stacker (3) with holder (4) up to the stand of the sewing unit (6).
- 2. Tighten the holder (4) to the stand of the sewing unit (6) using the screws (5).
- ♥ Do not tighten the screws (5) all the way yet.
- 3. Align the alternating stacker (3) such that it is parallel to the edge of the tabletop (1) on the sewing table.
- 4. Tighten the screws (5).



Fig. 66: Assembling the alternating stacker (2)

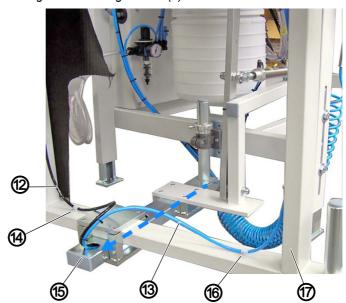


- (2) Stacking clamp
- (7) Pneumatic distributor
- (8) Pneumatic hose
- (9) Pneumatic valve
- (10) Cylinder
- (11) Pneumatic valve
- (12) Black pneumatic hose
- (13) Blue pneumatic hose



- 5. Fit the pneumatic hose (8) on the pneumatic distributor (7) of the stacking clamp (2).
- 6. Fit the pneumatic hoses on the cylinder.
  - Fit the black pneumatic hose (12) on the pneumatic valve (11)
  - Fit the blue pneumatic hose (13) on the pneumatic valve (9)

Fig. 67: Assembling the alternating stacker (3)



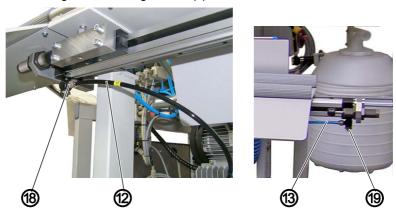
- (12) Black pneumatic hose
- (13) Blue pneumatic hose
- (14) Black pneumatic hose secured
- (15) Bar
- (16) Blue pneumatic hose secured
- (17) Stand





- 7. Feed the black and blue pneumatic hoses (12+13) through the bar (15) in arrow direction.
- 8. Properly route the pneumatic hoses upwards on the stand (17) and secure them carefully using clips/cable ties.
  - · Secure the black pneumatic hose (14) towards the left
  - Secure the blue pneumatic hose (16) towards the right

Fig. 68: Assembling the alternating stacker (4)



- (12) Black pneumatic hose
- (13) Blue pneumatic hose
- (18) Pneumatic valve (19) - Pneumatic valve

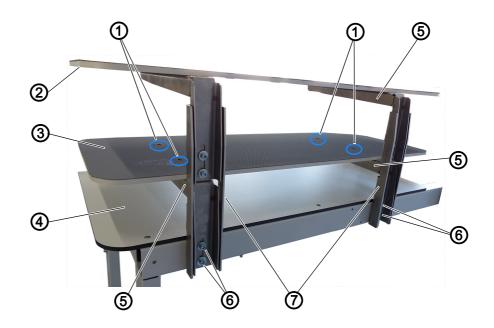


- 9. Fit the black pneumatic hose (12) on the pneumatic valve (18).
- 10. Fit the blue pneumatic hose (13) on the pneumatic valve (19).



# 7.6.1 Assembling the delivery table

Fig. 69: Assembling the delivery table



- (1) Screws
- (2) Upper delivery table
- (3) Lower delivery table
- (4) Sewing table

- (5) Support brackets
- (6) Screws
- (7) Track

The sewing unit is equipped with the lower delivery table (3). The additional option with a dual delivery table is complemented by the upper delivery table (2).



To assemble the delivery table:

- 1. Slide the support brackets (5) into the track (7) from the direction of the sewing table (4).
- 2. Tighten the screws (6).
- 3. Repeat the steps 1. to 2. for the  $2^{\text{nd}}$  side.
- 4. Place the lower delivery table (3) on the support brackets (5).
- 5. Tighten the screws (1).
- 6. To assemble the upper delivery table (2), repeat the steps 1. to 5.

# Aligning the delivery table



To align the delivery table:

- 7. Loosen the screws (6)
- 8. Adjust the delivery table (2) to the desired height.



- 9. Tighten the screws (6).
- 10. To align the upper delivery table (2), repeat the steps 7. to 9.

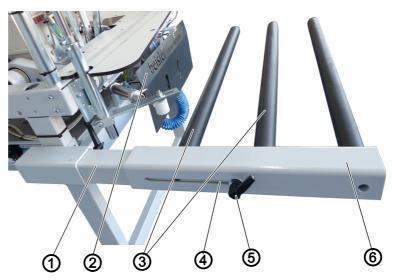


## **Important**

Move the delivery table (2)/(3) on both sides at the same time to keep it from slanting.

# 7.7 Assembling the clamping stacker tray extension (optional)

Fig. 70: Assembling the clamping stacker tray extension



- (1) Holder
- (2) Clamping stacker
- (3) Dual tray

- (4) Slot
- (5) Lever
- (6) Tray extension

By default, the base model machine is equipped with the dual tray (3) for the clamping stacker (2). An additional arm can be added as a tray extension (6) if the sewing material is large/long.



To assemble the tray extension:

- 1. Slide the tray extension (6) onto the holder (1).
- 2. Set the tray extension to the desired distance.
  - The minimum/maximum distance is preset by the slot (4).
- 3. Use the lever (5) to lock the tray extension (6) in place on the holder (1).



## 7.8 Electrical connection

# **DANGER**



# Risk of death from live components!

Unprotected contact with electricity can result in serious injuries or death.

Only qualified specialists may perform work on electrical equipment.



# **Important**

The voltage on the type plate of the sewing motor must correspond to the mains voltage.

# **Establishing the electrical connection**



To establish the electrical connection:

1. Connect the power plug.



### 7.9 Pneumatic connection

### NOTICE

## Property damage from oily compressed air!

Oil particles in the compressed air can cause malfunctions of the machine and soil the sewing material.

Ensure that no oil particles enter the compressed air supply.

### **NOTICE**

## Property damage from incorrect adjustment!

Incorrect system pressure can result in damage to the machine.

Ensure that the machine is only used when the system pressure is set correctly.

The pneumatic system of the machine and of the additional equipment must be supplied with dry and oil-free compressed air. The supply pressure must lie between 8 and 10 bar.

## 7.9.1 Assembling the compressed air maintenance unit



To assemble the compressed air maintenance unit:

 Connect the connection hose to the compressed air supply using a hose coupling R 1/4".

## 7.9.2 Adjusting the operating pressure

## **NOTICE**

## Property damage from incorrect adjustment!

Incorrect operating pressure can result in damage to the machine.

Ensure that the machine is only used when the operating pressure is set correctly.



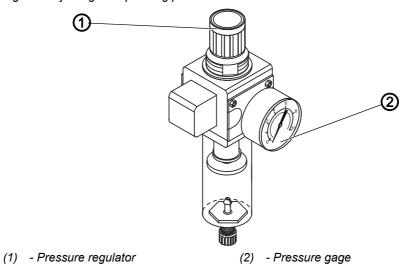
## **Proper setting**

Refer to the **Technical Data** ( $\square$  *p. 123*) chapter for the permissible operating pressure. The operating pressure cannot deviate by more than  $\pm 0.5$  bar.

Check the operating pressure on a daily basis.



Fig. 71: Adjusting the operating pressure





To adjust the operating pressure:

- 1. Pull the pressure regulator (1) up.
- 2. Turn the pressure regulator until the pressure gage (2) indicates the proper setting:
  - Increase pressure = turn clockwise
  - Reduce pressure = turn counterclockwise
- 3. Push the pressure regulator (1) down.

# 7.10 Performing a test run

When setup is complete, perform a test run to check the functionality of the machine.





# 8 Decommissioning

### **WARNING**



## Risk of injury from a lack of care!

Serious injuries may occur.

ONLY clean the machine when it is switched off. Allow ONLY trained personnel to disconnect the machine.

### **CAUTION**



# Risk of injury from contact with oil!

Oil can cause a rash if it comes into contact with skin.

Avoid skin contact with oil. If oil has come into contact with your skin, wash the affected areas thoroughly.



## To decommission the machine:

- 1. Switch off the machine.
- 2. Unplug the power plug.
- 3. If applicable, disconnect the machine from the compressed air supply.
- 4. Wipe up and remove residual oil from the oil pan using a cloth.
- 5. Cover the control panel to protect it from soiling.
- 6. Cover the control to protect it from soiling.
- 7. Cover the entire machine if possible to protect it from contamination and damage.





# 9 Disposal





Risk of environmental damage from improper disposal!

Improper disposal of the machine can result in serious environmental damage.

ALWAYS comply with the national regulations regarding disposal.



The machine must not be disposed of in the normal household waste.

The machine must be disposed of in a suitable manner in accordance with all applicable national regulations.

When disposing of the machine, be aware that it consists of a range of different materials (steel, plastic, electronic components, etc.). Follow the national regulations when disposing these materials.





# 10 Troubleshooting

# 10.1 Customer Service

Contact for repairs and issues with the machine:

# Dürkopp Adler GmbH

Potsdamer Str. 190 33719 Bielefeld, Germany

Tel. +49 (0) 180 5 383 756 Fax +49 (0) 521 925 2594

Email: service@duerkopp-adler.com Internet: www.duerkopp-adler.com





# 10.2 Errors in sewing process

Error	Possible causes	Corrective	
Unthreading at seam beginning	Needle thread tension is too firm	Check needle thread tension	
Thread breaking	Needle thread and hook thread have not been threaded correctly	Check threading path	
	Needle is bent or sharp- edged	Replace needle	
	Needle is not inserted cor- rectly into the needle bar	Insert the needle correctly into the needle bar	
	The thread used is unsuitable	Use recommended thread	
	Thread tensions are too tight for the thread used	Check thread tensions	
	Thread-guiding parts, such as thread tube, thread guide or thread take-up disk, are sharp-edged	Check threading path	
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists	
Skip stitches	Needle thread and hook thread have not been threaded correctly	Check threading path	
	Needle is blunt or bent	Replace needle	
	Needle is not inserted cor- rectly into the needle bar	Insert the needle correctly into the needle bar	
	The needle thickness used is unsuitable	Use recommended needle thickness	
	The reel stand is assembled incorrectly	Check the assembly of the reel stand	
	Thread tensions are too tight	Check thread tensions	
	Throat plate, hook or spread have been damaged by the needle	Have parts reworked by qualified specialists	



Error	Possible causes	Corrective
Loose stitches	Thread tensions are not adjusted to the sewing material, the sewing material thickness or the thread used	Check thread tensions
	Needle thread and hook thread have not been threaded correctly	Check threading path
Needle breakage	Needle thickness is unsuitable for the sewing material or the thread	•





# 11 Technical data

# Data and characteristic values

Technical data	Unit	1265-7	
Machine type		Single-head sewing unit for serging and overedging trousers parts with and without knee lining.	
Stitch type		503 2-thread/504 3-thread	
Hook type		Chainstitch hook, Overlock hook	
Number of needles		1	
Needle system		B27	
Needle strength	[Nm]	80 - 110	
Thread strength	[Nm]	Bulked thread D-TEX 110-1	
Stitch length	[mm]	Top feed max 5mm/ min. 1mm Bottom feed max 4mm/ min. 1mm	
Speed maximum	[min <sup>-1</sup> ]	6500	
Speed on delivery	[min <sup>-1</sup> ]	Depending on the seam: Pre-seams 1-2-3 at 6000 Long seams w/o knee lining 4-5-6-7 at 6000 Long seams w/ knee lining 4-5-6-7 at 5500	
Seam width	[mm]	6/ 5/ 4	
Sewing material		light/medium	
Mains voltage	[V]	1x230	
Mains frequency	[Hz]	50/60	
Operating pressure	[bar]	6	
Length	[mm]	1500	
Width	[mm]	900	
Height of base unit	[mm]	1400	
Table height	[mm]	815-1200	
Weight	[kg]	150	
Rated power	[kVA]	0.9	
Power input	[kV]A	0.9	

# 11.1 Requirements for fault-free operation

Compressed air quality must conform to ISO 8573-1: 2010 [7:4:4]



### 11.2 Recommended threads

Needle system: B27

Recommended needle thickness:

- Nm 80 for extra thin sewing material
- Nm 90 for thin sewing material
- · Nm 100 for moderately heavy sewing material
- Nm 110 for heavy sewing material

High sewing security and good sewability are achieved with the following core spun threads:

- Two-ply polyester endless polyester core-spun (e.g. Epic Poly-Poly, Rasant x, Saba C, ...)
- Two-ply polyester endless polyester core-spun (e.g. Frikka, Koban, Rasant, ...)

If these threads are not available, the polyester fiber or cotton threads listed in the table can also be sewn.

Often two-ply core spun threads are offered by the thread manufacturers with the same description as three-ply polyester fiber threads (3cyl.-spun). This causes uncertainty with regard to twisting and thread thickness.

When in doubt, unravel the thread and check whether it is twisted 2- or 3-ply. The label no. 120 on the thread reel of a core spun thread corresponds e.g. to the thread size Nm 80/2 (see table values in brackets).

In case of monofilament threads you can use needle threads and hook threads of the same thickness. The best results are achieved with soft and elastic threads (software) of the thread thickness 130 Denier.

#### Recommended thread thicknesses

Needle thickness Nm	Core spun thread		Core spun thread	
	Needle thread	Hook thread	Needle thread	Hook thread
	Polyester - endless Label no.	Polyester - core spun Label no.	Polyester - endless Label no.	Cotton - core spun Label no.
80 90 100-110	120 (NM 80/2) 100 (Nm 65/2)	120 (NM 80/2) 100 (Nm 65/2)	120 (NM 80/2) 100 (Nm 65/2)	120 (NM 80/2) 100 (Nm 65/2)
Needle thickness Nm	Polyester filament thread (3cylspun)		Cotton thread	
	Needle thread	Hook thread	Needle thread	Hook thread
80 90 100-110	Nm 120/3 Nm 80/3-120/3 Nm 70/3-100/3	Nm 120/3 Nm 80/3-120/3 Nm 70/3-100/3	NeB 60/3-80/3 NeB 50/3-70/3 NeB 40/3-60/3 (1NeB = 1.6934 Nm)	NeB 60/3-80/3 NeB 50/3-70/3 NeB 40/3-60/3 (1NeB = 1.6934 Nm)



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