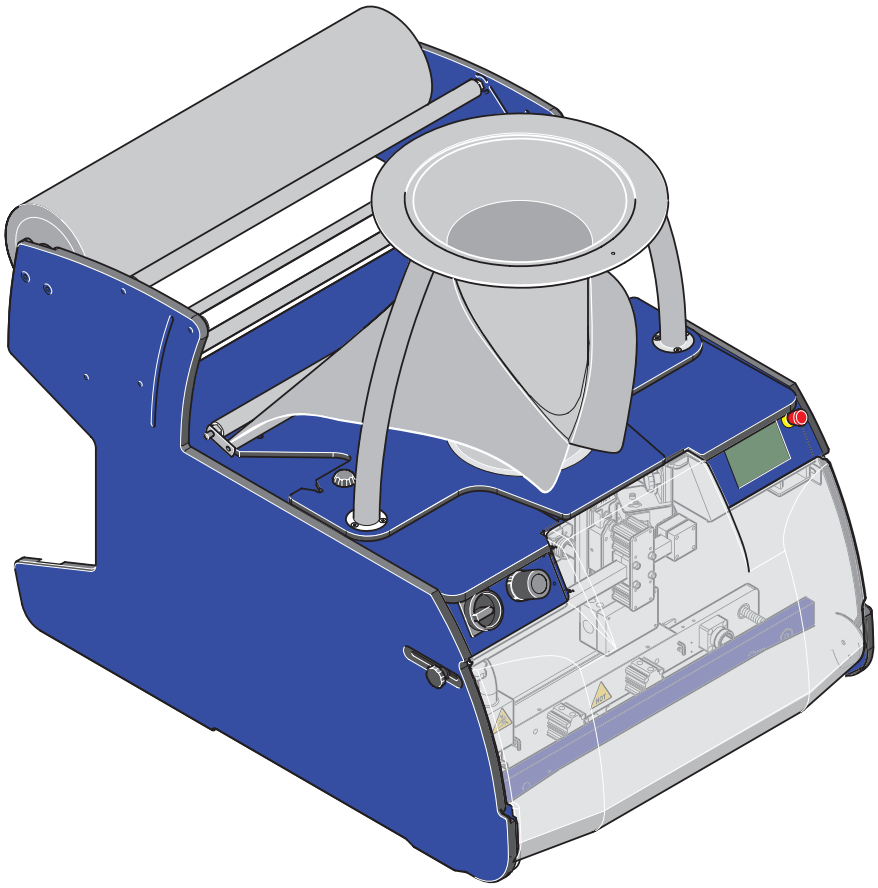
User Manual

EasyBagger



JASA packaging systems

Table of contents

1 Introduction

This manual is intended for operators and service personnel of the EasyBagger form, fill and seal machine. For product and technical specifications refer to chapter 8: Appendix.

1.1 Intended use

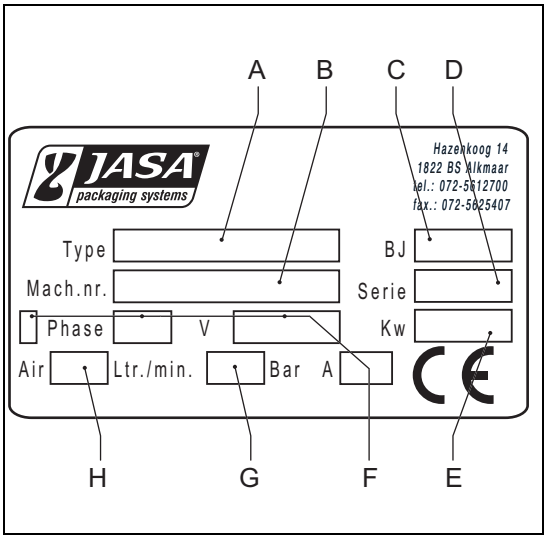
The JASA EasyBagger is designed to pack small runs of various products into flexible packs.

Warning

The use of the machine other than above mentioned is to be regarded as non-intended use, unless it is previous approved off in a written statement by JASA Packaging Systems.

1.2 Identification plate

A Type number
B Machine number
C Year of production
D Serial number
E Power consumption
F Electrical requirements
G Air pressure
H Air consumption



2 Safety

Read this manual before operating the machine.

2.1 Safety signs

2.1.1 Safety signs in the manual and on the machine

Risk of a hazard that can cause death or serious injury

Additional information

Risk of electric shock

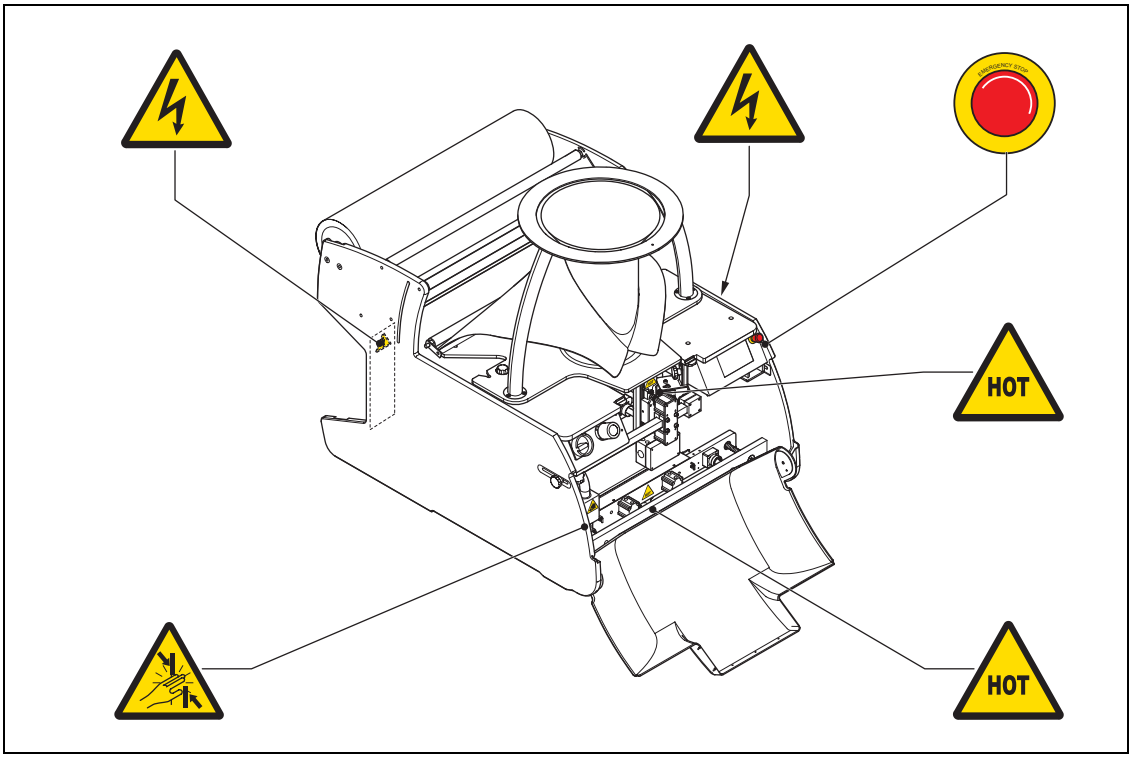
Hot

Risk of injury by moving parts

Emergency stop

2.1.2 Position of safety signs and emergency stop on the machine

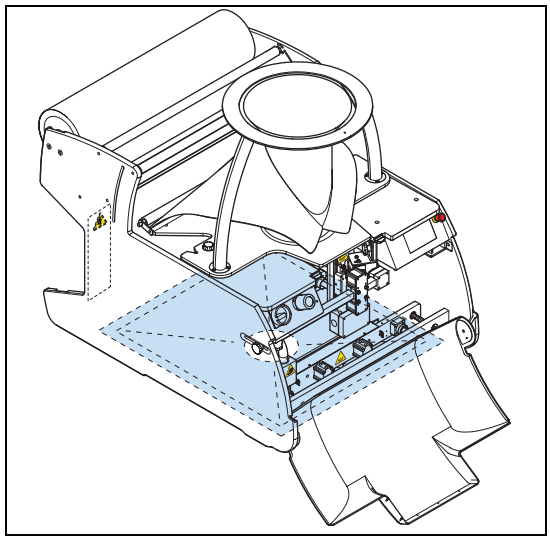
- Do not cover or remove the signs on the machine.
- Replace the signs that are damaged or not legible.



2.1.3 Protection cover

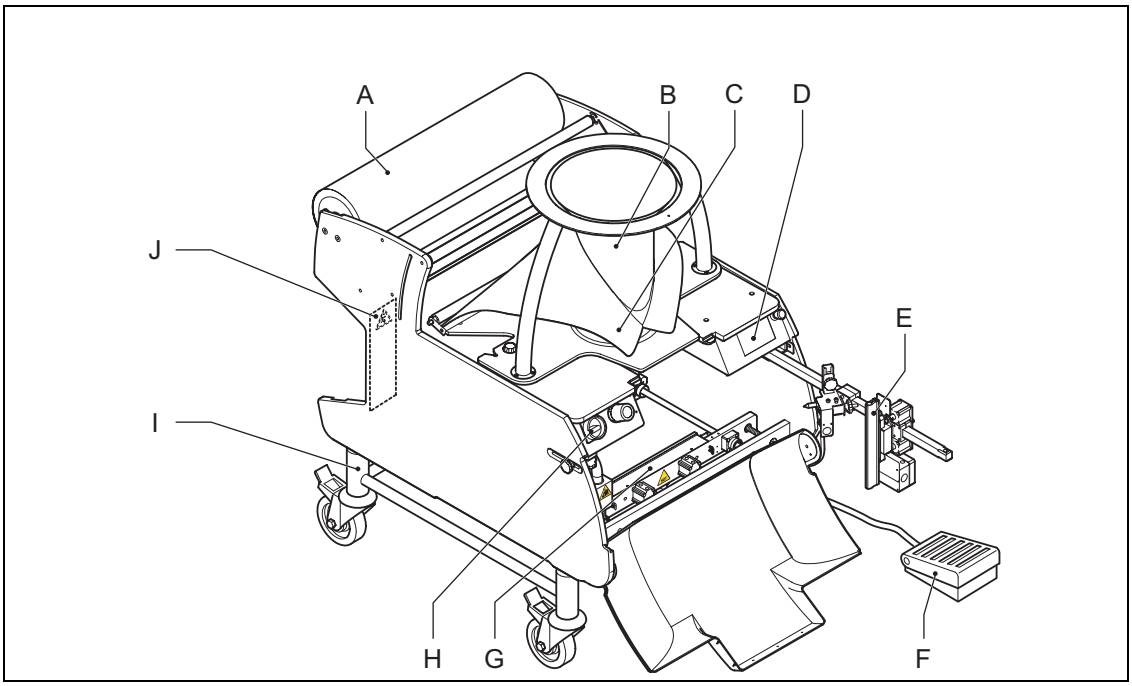
Warning

Do not remove the protection cover. The knife behind the protection cover is very sharp edged and can cause serious injury.



3 Description

3.1 Machine overview

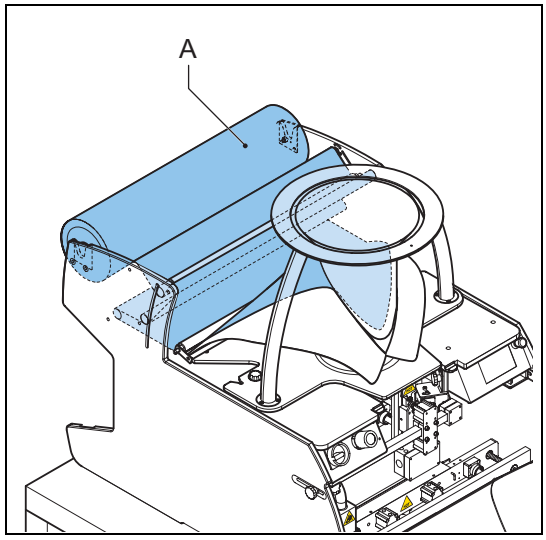


A Packaging film roll
B Filling tube (forming set)
C Forming shoulder (forming set)
D Control panel
E Vertical seal system
F Foot switch (option)
G Horizontal seal system
H Main switch
I Support frame with wheels (option)
J Connections

3.2 Working principle

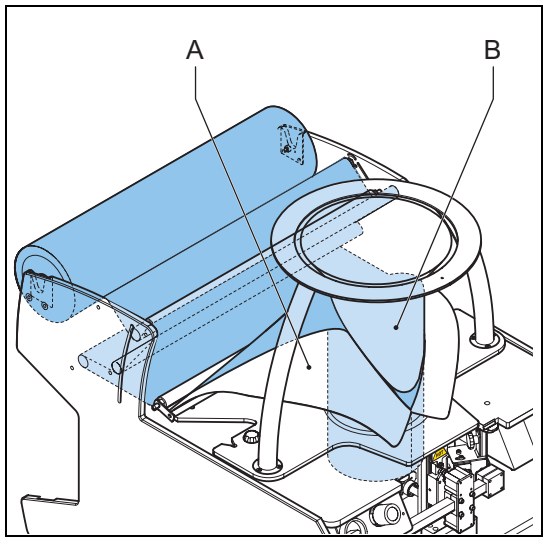
3.2.1 In-feed system

The in-feed system leads the film from the film roll (A) via guide rollers towards the forming set.



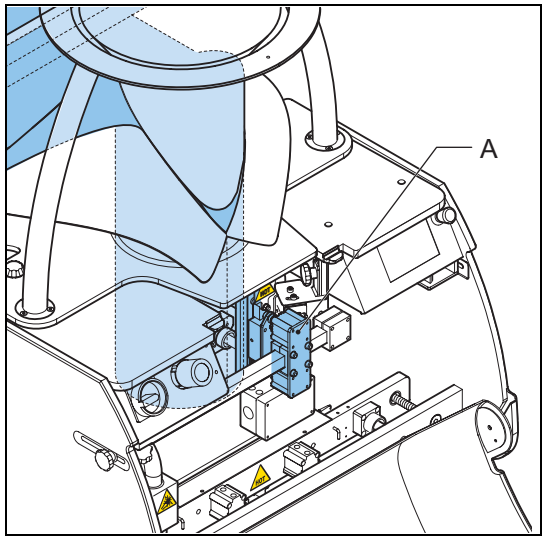
3.2.2 Forming set

The film is led over the forming shoulder (A) to produce a tube form around the filling tube (B).



3.2.3 Vertical seal system

The vertical seal jaw (A) seals the film into a tube.

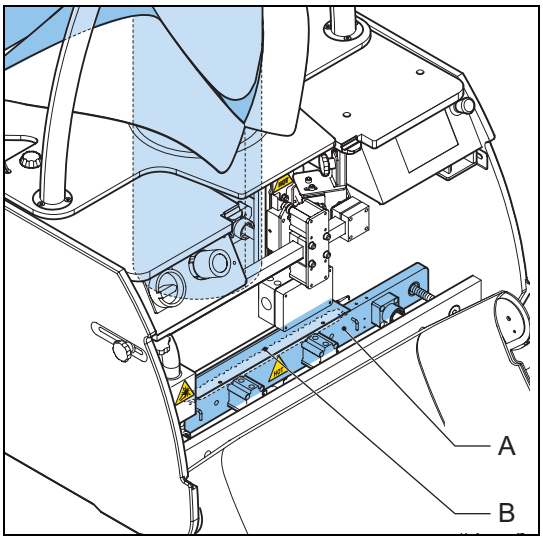


3.2.4 Horizontal seal system

The horizontal seal jaws (A) create a seal and the knife (B) cuts the seal in the middle, to create a bottom seal and a top seal. The result is a filled and a closed bag.

The horizontal seal system has two functions:

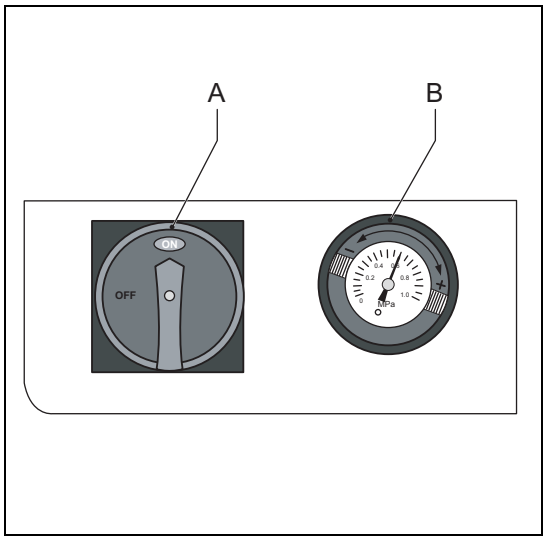
1. To close the filled bags.
2. To catch the products when the horizontal seal jaws are closed.



3.3 Control panel

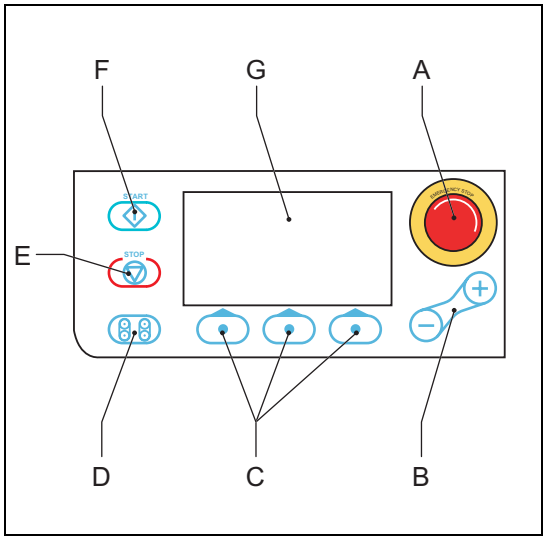
3.3.1 Main control

A Main switch
B Compressed air control



3.3.2 Process control

A Emergency stop
B Decrease / increase value or position
C Select display functions
D Manual film transport options
E Stop
F Start
G Display

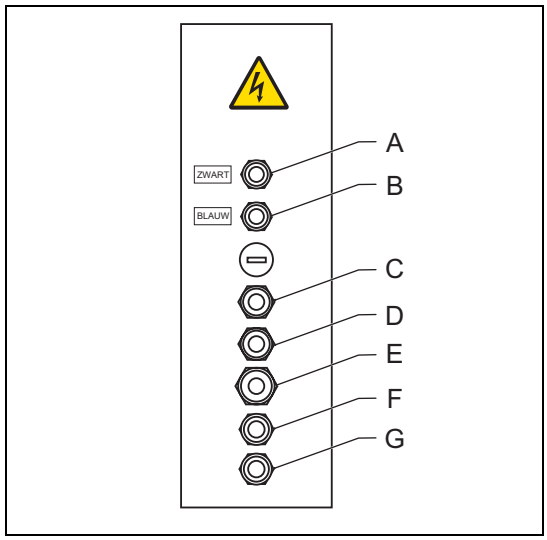


Display functions

↵	Enter	← →	Open film transport wheels
↓ ↓	Start / stop transport wheels	→ ←	Close film transport wheels
→	Move cursor one position	**PROG**	Choose program / Edit settings
RESET	Reset	**TEST**	Test electronic inputs / outputs
PASSW	Enter password	**SERVICE**	Get production information
ESC	Go to previous screen		Service menu
COMP	Switch components ON / OFF		Advanced settings
OK	OK		

3.4 Connections

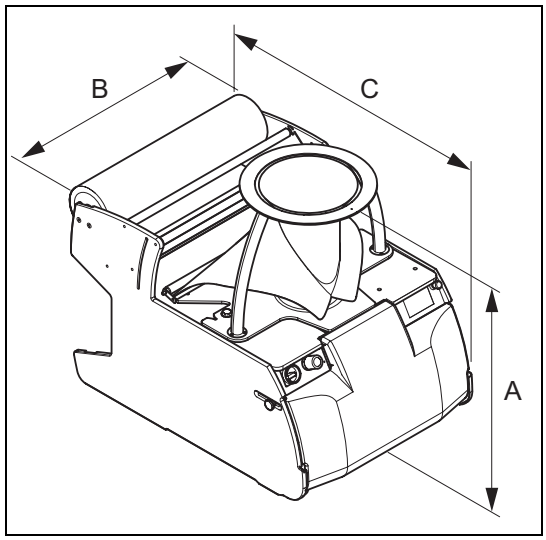
A Printer black tube (option)
B Printer blue tube (option)
C Photocell (option)
D Foot switch (option)
E Power supply
F Compressed air
G Synchro (option)



4 Installation

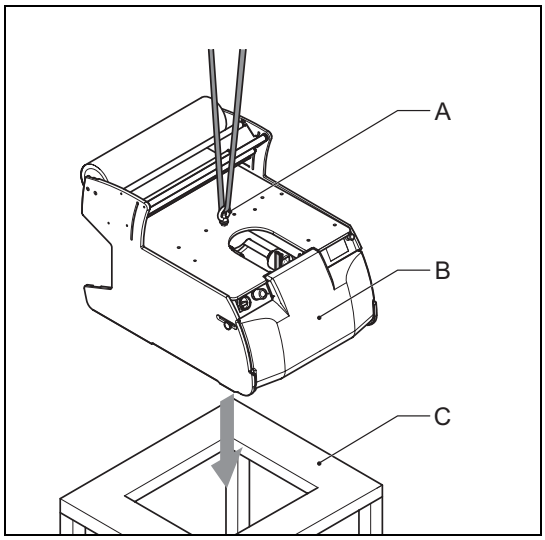
4.1 Overview

During installation be aware of the dimensions of the machine (A, B, C). Refer to section 8.2 *Technical specifications.*



4.2 Position the machine

1. Connect the hoist cable to the eyebolt (A).
2. Place the machine (B) on a stable frame or table (C).
3. Remove the eyebolt (A).
4. Connect the power supply and the compressed air. Refer to section 3.4 *Connections.*
5. Supply the compressed air to the machine.



5 Operation

5.1 Safety devices

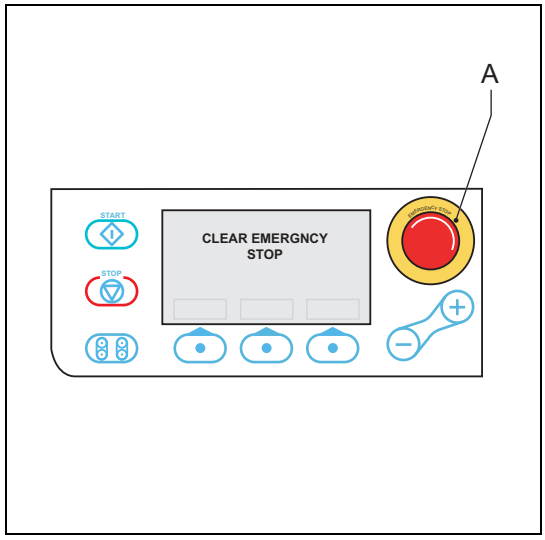
5.1.1 Emergency stop

1. Push the emergency stop (A) in an emergency. The power supply and the compressed air will be interrupted immediately.
2. Find the cause of the interruption.

Warning

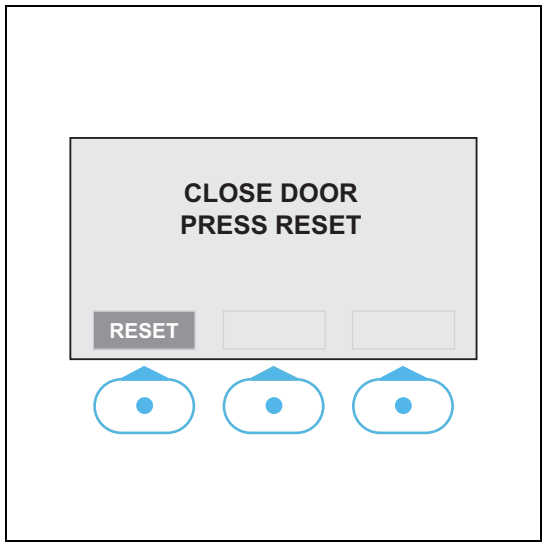
Do not reset, until the reason is found why the emergency stop has been pushed.

3. Pull the emergency stop to clear the emergency stop.
4. Select RESET.



5.1.2 Door

1. Close the door before the start of the production.
2. Select RESET.



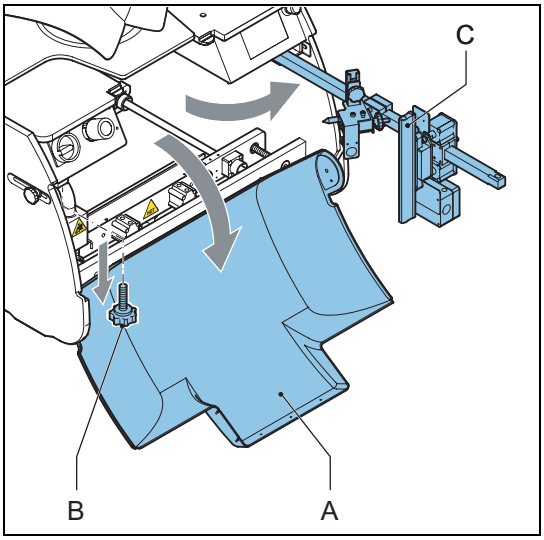
5.2 Prepare for production

Warning

Make sure that the main switch is turned to OFF.

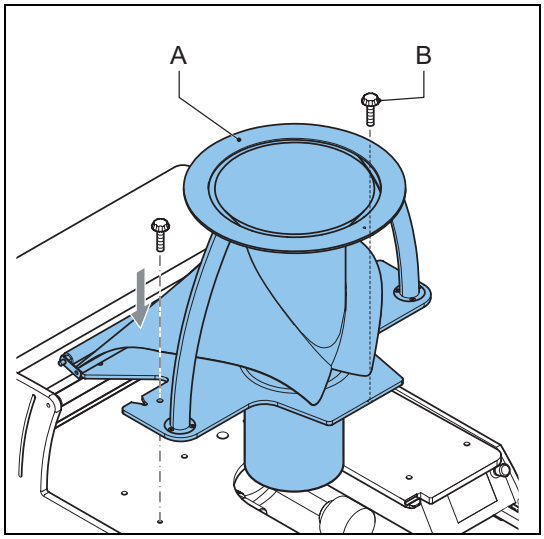
5.2.1 Open the seal area

1. Open the door (A).
2. Unscrew the star knob (B).
3. Open the vertical seal system (C).



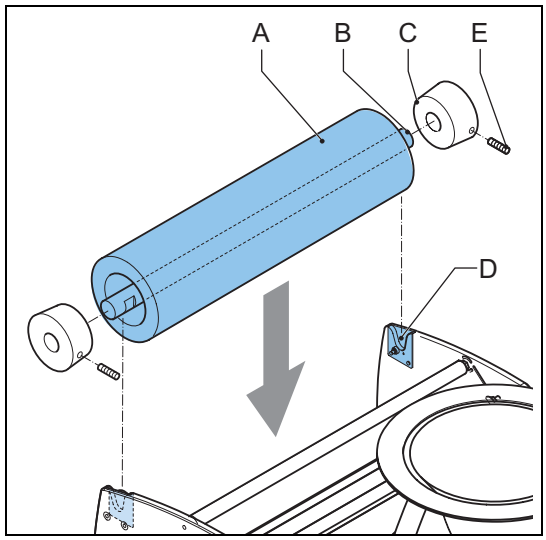
5.2.2 Attach the forming set

1. Attach the forming set (A).
2. Fasten the star knobs (B).



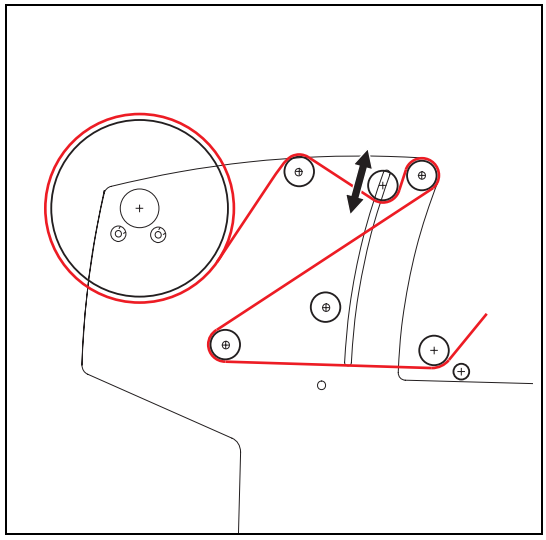
5.2.3 Install the film roll

1. Attach the film roll (A) to the shaft (B).
2. Attach the cones (C).
3. Install the shaft with the film roll into the suspension (D).
4. Place the film roll in the middle of the shaft.
5. Slide the cones against the film roll.
6. Attach the cones with the screws (E). Be sure there is no play between the film roll and the shaft.



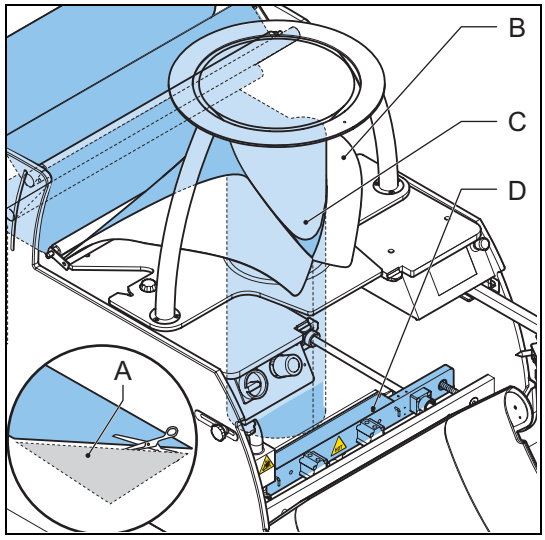
5.2.4 Feed in the film

1. Feed the film via the guide rolls along the indicated path to the forming set.



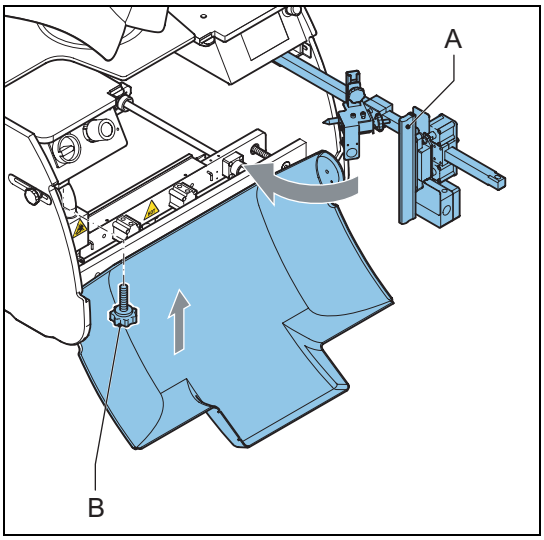
5.2.5 Feed the film to the forming set

1. Cut the film to a tip (A).
2. Pull the film manually through the shoulder (B) along the filling tube (C) until the film has passed the horizontal seal system (D).



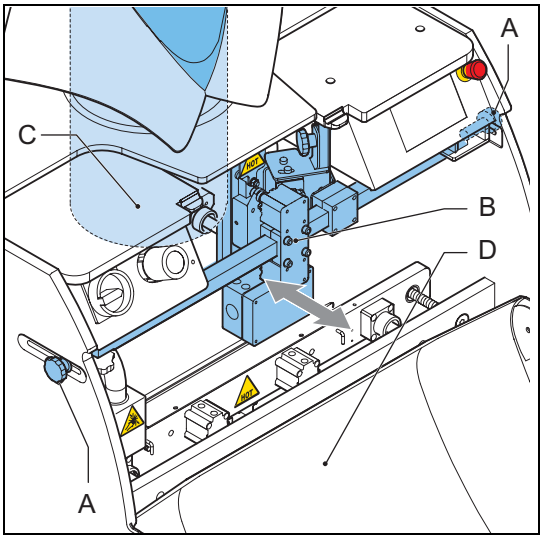
5.2.6 Lock the vertical seal system

1. Close the vertical seal system (A).
2. Lock the vertical seal system with the star knob (B).



5.2.7 Adjust the vertical seal system

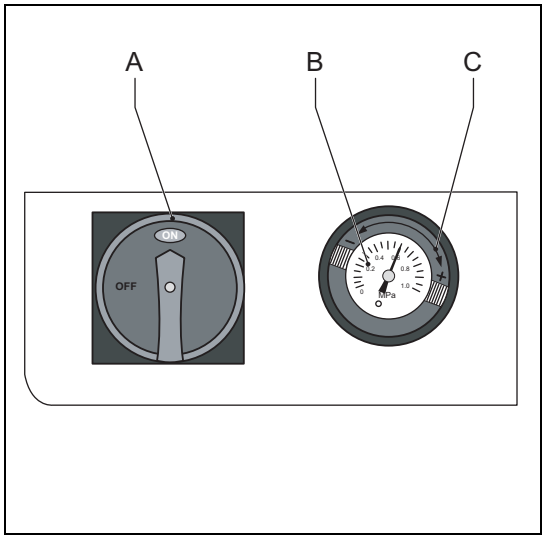
1. Loosen the star knobs (A).
2. Set the vertical seal jaw (B) to a distance of 5 mm to the filling tube (C).
3. Fasten the star knobs (A).
4. Close the door (D).



5.3 Start up the machine

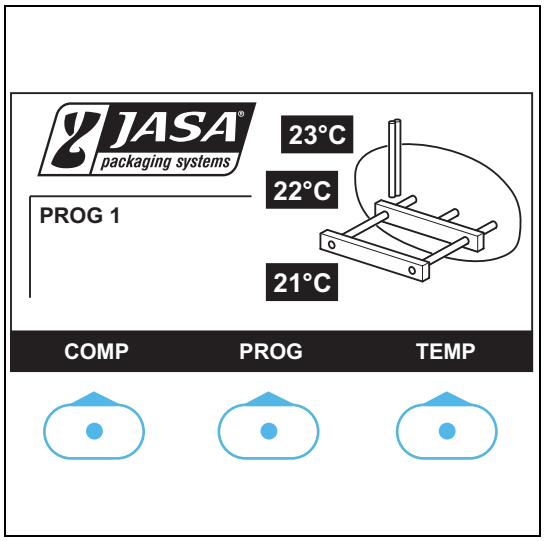
5.3.1 Set main control

1. Turn the main switch (A) to ON.
2. Read out the value of the compressed air on the indicator (B).
3. Pull and rotate the knob (C) to set the value of the compressed air to 6 bar.
4. Select RESET.
5. Close the transport belts.

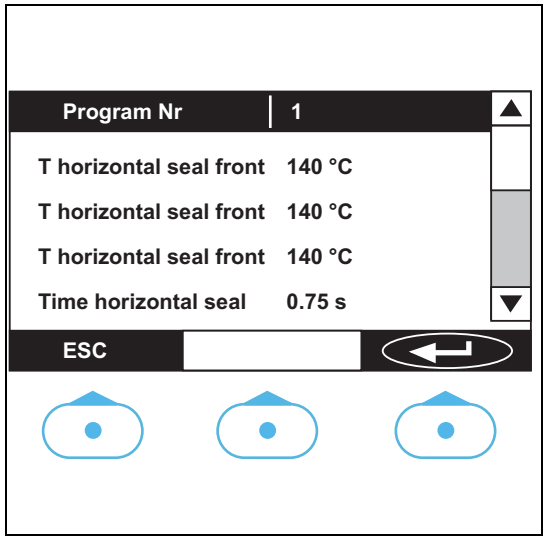


5.3.2 Set production settings

1. Select PROG to go to the programming menu.

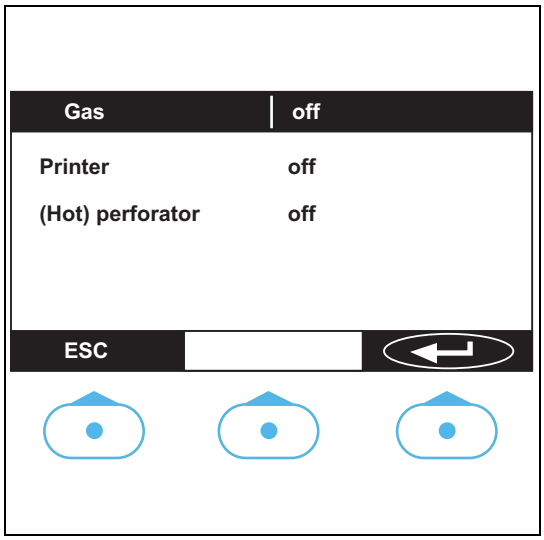


2. Press the decrease / increase button to scroll through the entire menu.
3. Select ENTER to select the highlighted parameter.
4. Press the decrease / increase button to change the value of the parameter.
5. Select ENTER to confirm.
6. For default configuration adjustments refer to section 8.1 *Default configuration settings.*



5.3.3 Switch components ON / OFF

1. Select COMP from the main menu.
2. Press the increase / decrease button to scroll through the list.
3. Select ENTER to select the highlighted component.
4. Press the decrease / increase button to change the value of the parameter.
5. Select ENTER to confirm.

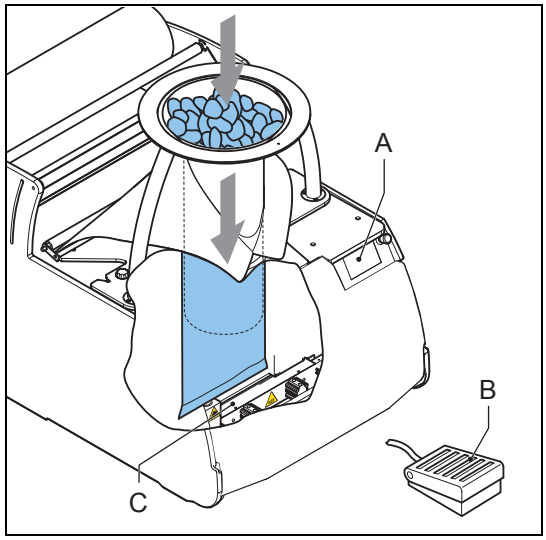


5.4 Start the production

1. Prepare a portion of products to be packed.
2. Press the start button A or footswitch B (option) and supply the machine with the prepared portion of products.
3. Repeat from step 1 for the next portions.

Attention

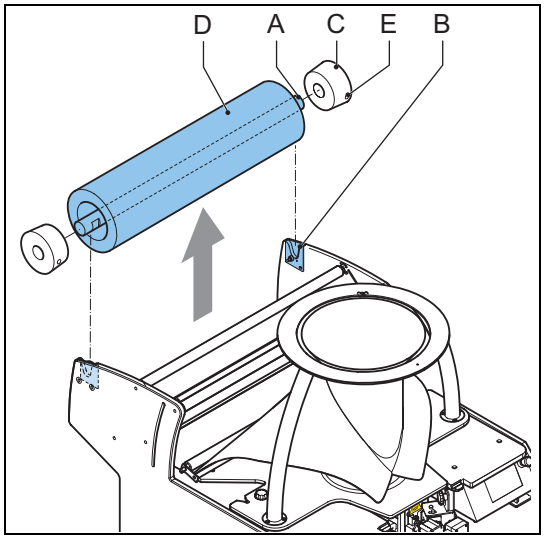
To prevent that the film will tear, the products must land at the moment that the horizontal seal jaws (C) are closed.



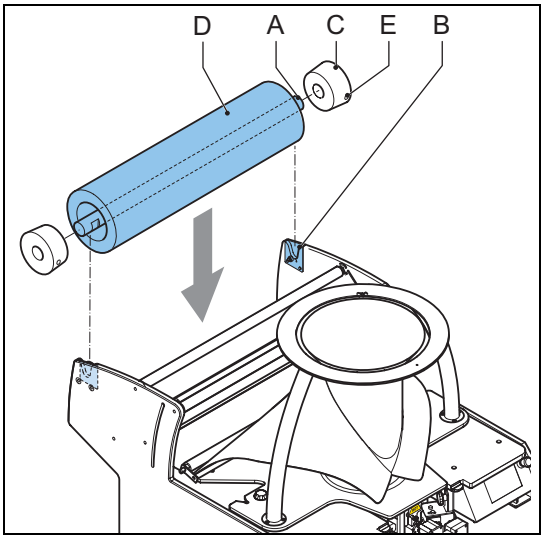
5.5 Changes during production

5.5.1 Change the film roll

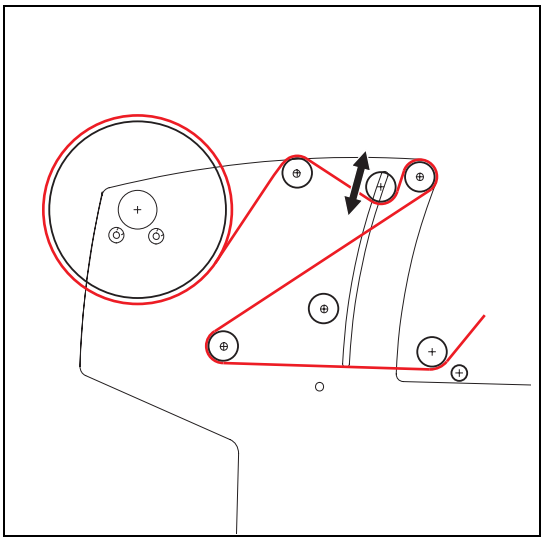
1. Remove the shaft (A) from the suspension (B).
2. Loosen the screws (E).
3. Remove the cones (C).
4. Remove the empty film roll (D) from the shaft.



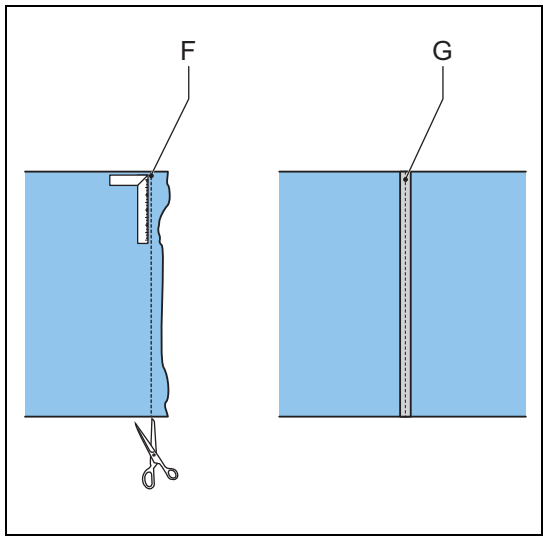
5. Place the film roll (D) on the shaft (A).
6. Place the cones (C).
7. Place the shaft with the film roll into the suspension (B).
8. Position the film roll in the middle of the shaft.
9. Slide the cones against the film roll.
10. Fix the cones with the screws (E). Be sure there is no play between the film roll and the shaft.



11. Feed the film via the guide rolls along the indicated path to the forming set.

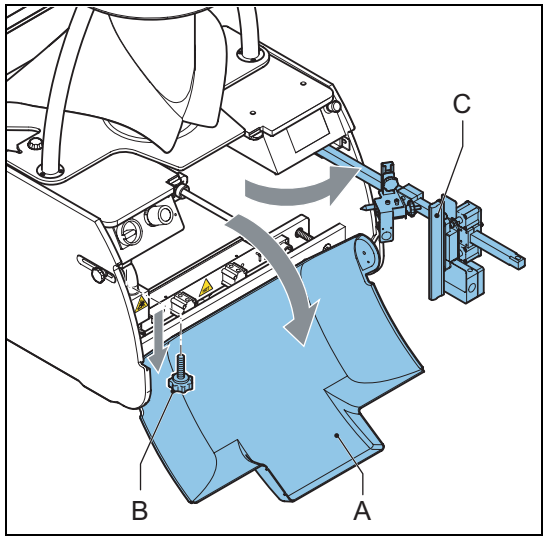


12. Cut-off the new film square (F).
13. Tape both ends wrinkle-free together (G).

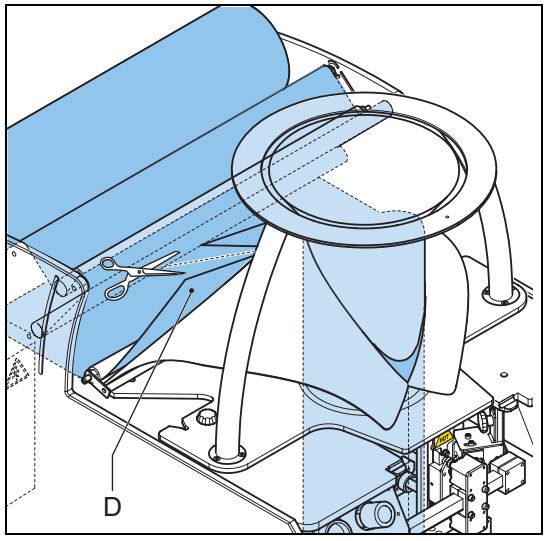


5.5.2 Change the forming set

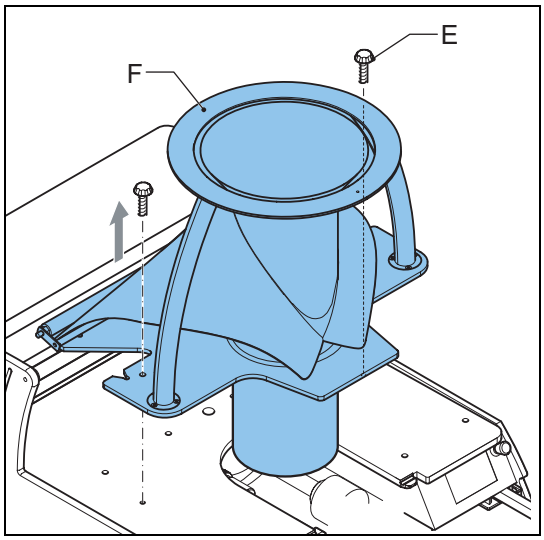
1. Open the door (A).
2. Unscrew the star knob (B).
3. Open the vertical seal system (C).



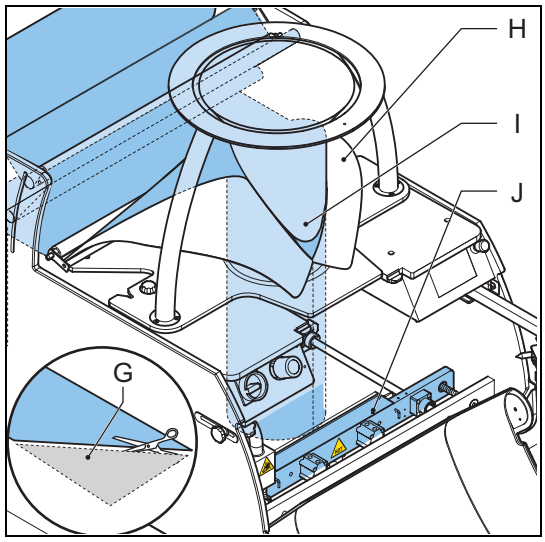
4. Cut-off the film at position D.



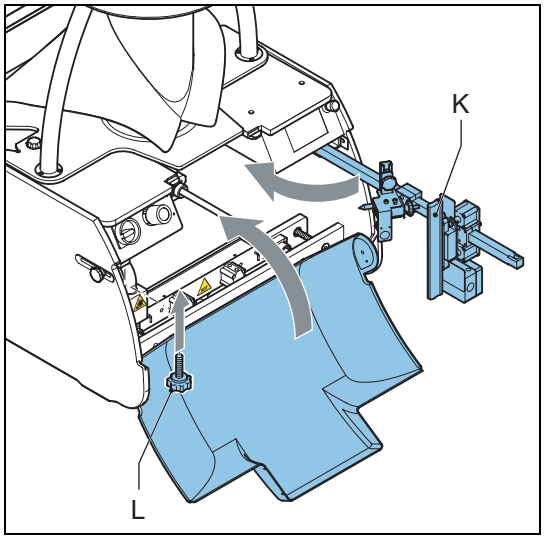
5. Remove the star bolts (E) and remove the forming set (F).
6. Attach an other forming set in opposite order.



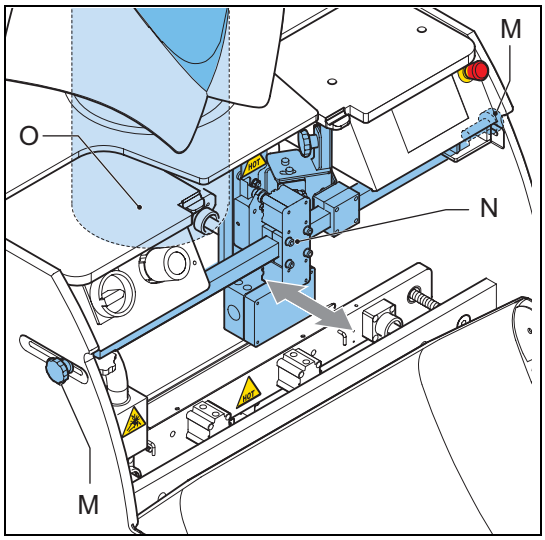
7. Cut the film to a tip (G).
8. Pull the film manually through the shoulder (H) along the filling tube (I) until the film has passed the horizontal seal system (J).



9. Close the vertical seal system (K).
10. Lock the vertical seal system with the star knob (L).



11. Loosen the star knobs (M).
12. Set the vertical seal jaw (N) to a distance of 5 mm to the filling tube (O).
13. Fasten the star knobs (M).
14. Close the door.



6 Maintenance

Warning

Make sure that the main switch is turned to OFF.

Warning

Be aware for hand injury! The knife is very sharp edged.

Warning

Be aware for hand injury! The seal jaws and the knife can be hot.

The JASA Easy Bagger has been designed to operate over a long period of time with a minimum of maintenance. Continuous operation depends on a proper machine care and regular cleaning.

6.1 Cleaning

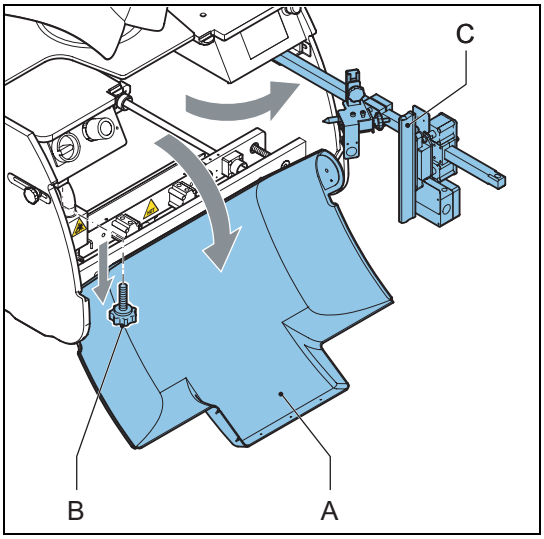
Warning

Do not spray any water to clean the machine.

Inspection	Frequency	Action	See
Seal jaws	Daily	Clean	6.1.1
Knife	Daily	Clean	6.1.1

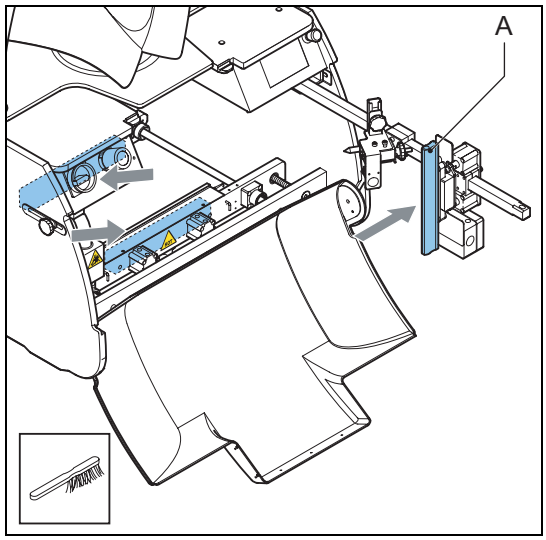
6.1.1 Open the seal area

1. Open the door (A).
2. Unscrew the star knob (B).
3. Open the vertical seal system (C).

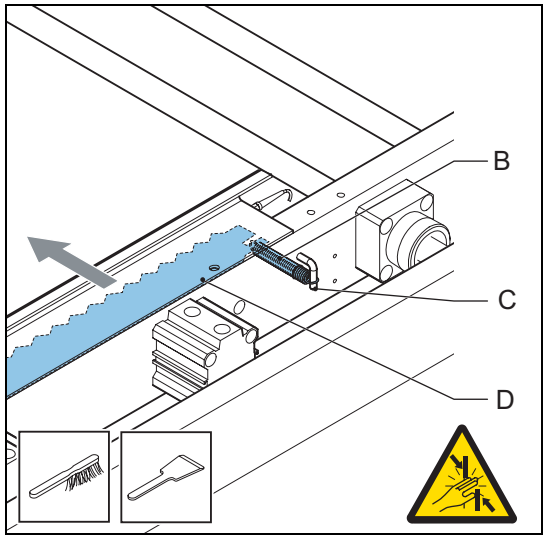


6.1.2 Clean the seal jaws and the knife

1. Clean the aluminium parts with a wooden tongue.
2. Clean the stainless steel seal jaw (A) with a brass brush.

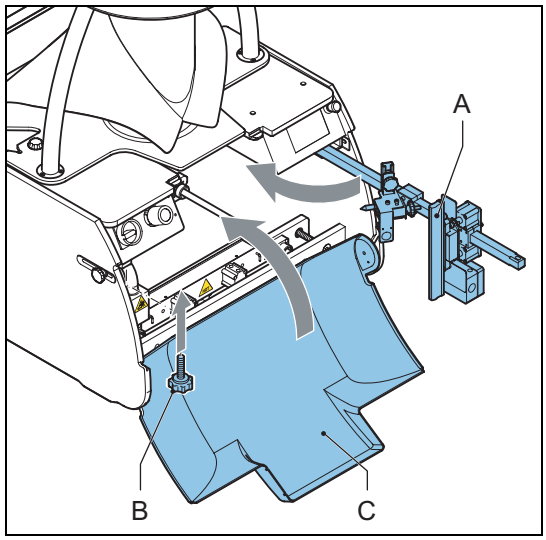


3. Release the spring (B) from the bracket (C).
4. Remove the knife (D).
5. Clean the knife with a filling knife.
6. Clean the stainless steel seal jaws with a brass brush.
7. Place the knife in opposite order.
8. Grease the horizontal seal jaw at the element side.



6.1.3 Close the seal area

1. Close the vertical seal system (A).
2. Lock the vertical seal system with the star knob (B).
3. Close the door (C).

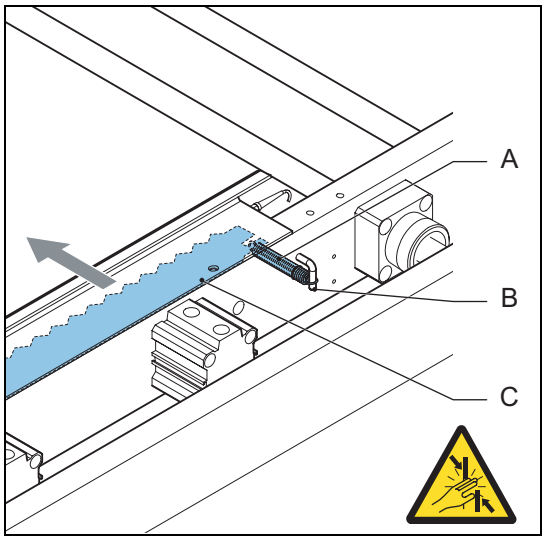


6.2 Technical maintenance

Inspection	Check	Frequency	Action	See
Knife	Severe contamination or damage	Daily	Replace	6.2.1
Film wheels	Worn out of the rubber	Weekly	Replace	6.2.3
Air pressure	Required values	Half-yearly	Adjust	6.2.4

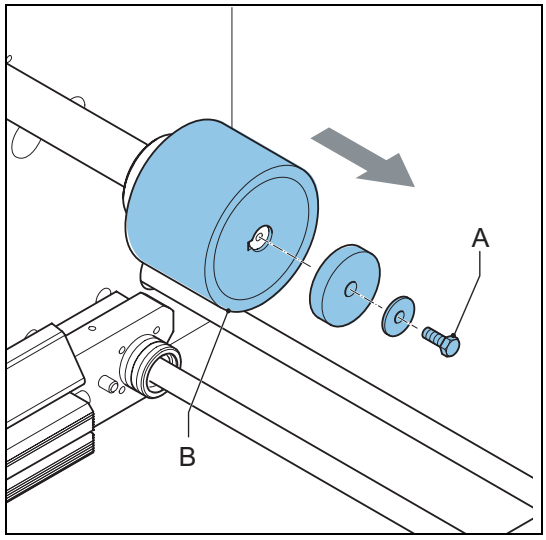
6.2.1 Replace the knife

1. Open the seal area. Refer to section 6.1.1: *Open the seal area*.
2. Release the spring (A) from the bracket (B).
3. Remove the knife (C).
4. Place the new knife in opposite order.
5. Close the seal area. Refer to section 6.1.3: *Close the seal area.*



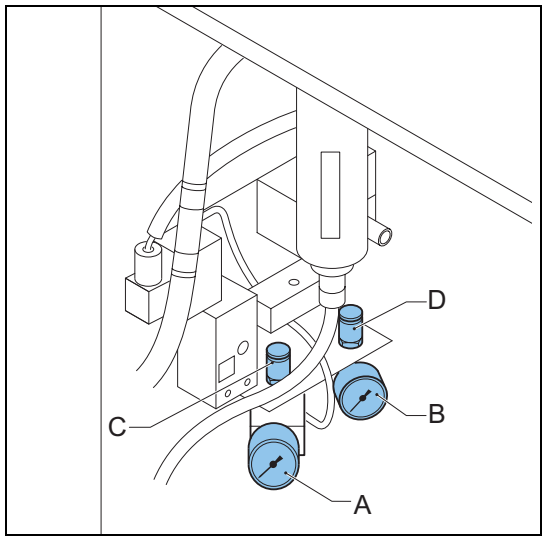
6.2.2 Replace the film wheels

1. Open the seal area. Refer to section 6.1.1: O*pen the seal area.*
2. Unscrew the bolts (A).
3. Remove the film wheels (B).
4. Install the new film wheels.
5. Tighten the bolts.
6. Close the seal area. Refer to section 6.1.3: *Close the seal area.*



6.2.3 Check the air pressure

1. Remove the cover.
2. Read out the compressed air pressure at the indicator 1 (A) and at the indicator 2 (B).
3. Adjust the airpressure with the regulators (C) and (D), if necessary. Refer to section 8.1: *Technical Specifications.*
4. Place the cover.



7 Troubleshooting

Warning

Be aware for hand injury! The knife is very sharp edged.

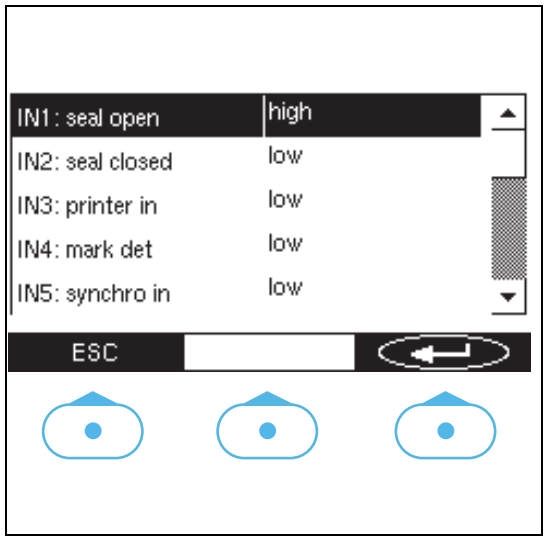
Warning

Be aware for hand injury! The seal jaws and the knife can be hot.

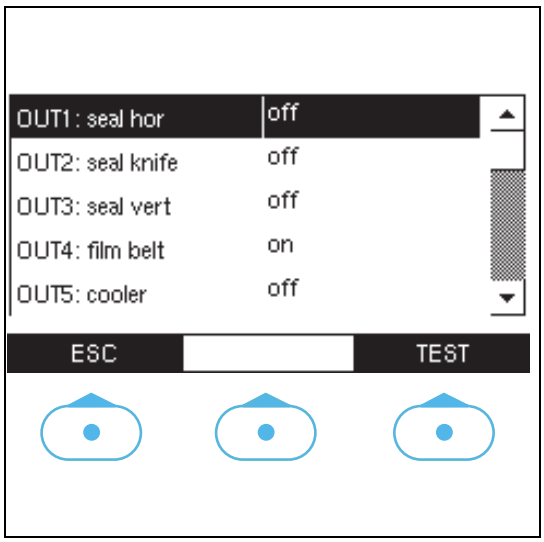
7.1 Test of the electrical devices

To test the electrical devices on the machine go to the TEST screen.

1. Press password.
2. Enter password (1112).
3. Go to the screen TEST INPUTS.
4. Activate the input device that has to be tested.
5. Check the change of state of the activated input.
6. Select ESC to leave the test screen.



7. Go to the screen TEST OUTPUTS.
8. Press the increase / decrease button to scroll through the entire list.
9. Press TEST to toggle the desired output.
10. Select ESC to leave the test screen.



7.2 Error messages

Number	Name in software	Description
0	ERR__NONE	No errors
1	ERR_TEMPLOW	Temperature too low
2	ERR_TEMPHIGH	Temperature too high
3	ERR_HEATER	Heater error
4	ERR_SEALCLOSE	Horizontal seal close error
5	ERR_SEALOPEN	Horizontal seal open error
6	ERR_FILMADJ	Film adjust exceeds limits
7	ERR_FILMMOVE	Timeout during film move
8	ERR_CONFIG	Configuration could not be restored
9	ERR_PRODDETNONE	No product detected, stopped
10	ERR_PRODDETMAX	Too much product detected, stopped
11	ERR_MARKERMAX	Marker position exceeds maximum
12	ERR_PRINTER	Printer error
13	ERR_NOFILM	No film detected
14	ERR_IO_COMM	No communication with IO-board
15	ERR_IO_24V	IO-board 24V not ok
16	ERR_IO_L1	Mains input phase L1 not ok
17	ERR_IO_L2	Mains input phase L2 not ok
18	ERR_IO_L3	Mains input phase L3 not ok
19	ERR_IO_PT1	Temperature sensor 1 not ok
20	ERR_IO_PT2	Temperature sensor 2 not ok
21	ERR_IO_PT3	Temperature sensor 3 not ok
22	ERR_FR_COM	No communication with FR-board
23	ERR_FR_PSU	FR-board power supply not ok
24	ERR_FR_CURR	Transport motor current too high
25	ERR_FR_TEMP	FR-board temperature too high
26	ERR_FR_TMOT	Transport motor temperature too high
27	ERR_FR_IXT	Transport motor overload detected
28	ERR_FR_NOCURR	Transport motor current too low

7.3 Product problems

Problem	Possible cause	Action
Horizontal seal not closed	The seal jaws are not fully closed	Adjust the seal jaws
	The temperature is too low	Increase the temperature
	The seal time is too short	Increase the seal time
Vertical seal not closed	The vertical seal jaw does not reach the filling tube	Adjust the vertical seal jaw
	The temperature is too low	Increase the temperature
	The seal time is too short	Increase the seal time
Bag tears on vertical seal seam	Film is creased on the vertical seal	Smooth down the film
	The distance between the vertical seal jaw and the filling tube is too short	Adjust the vertical seal jaw
	The film transport does not stand still at the moment that the vertical seal is activated	Decrease the deceleration time
The bag is not cut off	The knife is caked	Clean the knife
The bag length fluctuates	The mark detection is OFF	Set the mark detection to ON
No print on the bag	The printer is OFF	Set the printer to ON

8 Appendix

8.1 Default configuration settings

Menu	Description	Default	Unit
User settings:			
MNU_TEMP	Program number	1	
MNU_TEMP	Temperature horizontal seal front	140	°C
MNU_TEMP	Temperature horizontal seal rear	140	°C
MNU_TEMP	Temperature vertical seal	140	°C
MNU_TEMP	Time horizontal seal	0,75	s
MNU_TEMP	Time vertical seal	0,4	s
MNU_TEMP	Cool pulse time	0,2	s
MNU_PROG	Film length	250	mm
MNU_PROG	Wait before transport	1	s
MNU_PROG	Wait after package	1	s
MNU_PROG	No drop in a bag	1	X
MNU_PROG	Earlier drop moment	0	s
MNU_PROG	Film tracking pulse time	0,3	s
MNU_PROG	Perforator time	0,1	s
MNU_PROG	Bag length sensor delay	0,05	s
MNU_PROG	Pulse gas time	0,1	s
MNU_PROG	Continuous gas time	1	s
MNU_PROG	Pre gas time	0,5	s
Components:			
MNU_COMP	Gas	Off	
MNU_COMP	Printer	On	
MNU_COMP	(Hot) perforator	Off	
MNU_COMP	Bag length detection	Off	
MNU_COMP	Mark detection	Off	
MNU_COMP	Film tracking	Off	
MNU_COMP	Bag vibrator	Off	
MNU_COMP	Side infold	Off	
MNU_COMP	Block bottom	Off	
MNU_COMP	Counter	Off	

Menu	Description	Default	Unit
MNU_SERV	Bags packed today	0	
MNU_SERV	Bags packed total	0	
MNU_SERV	Hours total	0	
MNU_SERV	Software revision	-	
MNU_SERV	Test inputs	-	
MNU_SERV	Test outputs	-	
MNU_SERV	Machine settings	-	
Machine settings:			
MNU_INST	Language	English	
MNU_INST	Film length factor	400	mm/s
MNU_INST	Motor speed	50	Hz
MNU_INST	Acceleration	0,1	s
MNU_INST	Deceleration	0,1	s
MNU_INST	Maximum temperature error	10	°C
MNU_INST	Maximum horizontal close time	800	ms
MNU_INST	Length vertical seal	220	mm
MNU_INST	Printer type	none	
MNU_INST	Printer error contact	none	
MNU_INST	Film transport type	Timer	
MNU_INST	Synchro type	none	
MNU_INST	Seal type	Heat-seal	
MNU_INST	Seal horizontal front	On	
MNU_INST	Seal horizontal rear	On	
MNU_INST	Seal vertical	On	
MNU_INST	Pulse gas	not available	
MNU_INST	Continuous gas	not available	
MNU_INST	Perforator type	not available	
MNU_INST	Bag length detection	not available	
MNU_INST	Mark detection	not available	
MNU_INST	Film tracking	not available	
MNU_INST	Film tracking sensor	left	
MNU_INST	Bag vibrator	not available	
MNU_INST	Side infold	not available	
MNU_INST	Block bottom	not available	
MNU_INST	System configuration	-	

Menu	Description	Default	Unit
MNU_CONF	Machine type	Easybagger	
MNU_CONF	Ethernet IP address	192.168.1.147	
MNU_CONF	Ethernet netmask	255.255.255.0	
MNU_CONF	Ethernet gateway	192.168.1.39	
MNU_CONF	Ethernet MAC address	-	
MNU_CONF	System CAN nodes	-	
MNU_INP	IN1: seal open	-	
MNU_INP	IN2: seal closed	-	
MNU_INP	IN3: printer in	-	
MNU_INP	IN4: mark detection	-	
MNU_INP	IN5: synchro in	-	
MNU_INP	IN6: film sensor L	-	
MNU_INP	IN7: film sensor R	-	
MNU_INP	IN8: film end L	-	
MNU_INP	IN9: film end R	-	
MNU_INP	IN10: film detection	-	
MNU_INP	IN11: reserve 1	-	
MNU_INP	IN12: reserve2	-	
MNU_INP	IN13: reserve 3	-	
MNU_INP	IN14: reserve 4	-	
MNU_INP	IN15: emergency	-	
MNU_OUTP	OUT1: seal horizontal	Off	
MNU_OUTP	OUT2: seal knife	Off	
MNU_OUTP	OUT3: seal vertical	Off	
MNU_OUTP	OUT4: film belt	Off	
MNU_OUTP	OUT5: cooler	Off	
MNU_OUTP	OUT6: heat front	Off	
MNU_OUTP	OUT7: heat rear	Off	
MNU_OUTP	OUT8: heat vertical	Off	
MNU_OUTP	OUT9: heat reserve	Off	
MNU_OUTP	OUT10: film L	Off	
MNU_OUTP	OUT11: film R	Off	
MNU_OUTP	OUT12: printer	Off	
MNU_OUTP	OUT13: synchro	Off	
MNU_OUTP	OUT14: reserve 1	Off	
MNU_OUTP	OUT15: reserve 2	Off	

Menu	Description	Default	Unit
MNU_OUTP	OUT16: reserve 3	Off	
MNU_OUTP	OUT17: reserve 4	Off	
MNU_OUTP	OUT18: reserve 5	Off	
MNU_OUTP	Motor film transport	Off	

8.2 Technical specifications

Item	*Specification*
Weight	165 kg (incl. forming set)
Dimensions	Length (C) = 1200 mm Width (B) = 850 mm Height (A) = 1200 mm
Electrical requirements	3 phase 400V + N + PE (1 phase 230 V + N + PE on request)
Electrical capacity	2500 W
Air pressure	On operator panel: 6 bar On indicator 1: 4 bar On indicator 2: 2 bar

8.3 Product specifications

Item	*Specification*
Bag width	Max. 350 mm
Bag length	No limit
Packaging material	Polypropylene or laminated film

8.4 Additional information

8.4.1 Certification

Refer to the separate CE-declaration that is delivered to the EU-countries.

8.4.2 Guarantee

For information on guarantee refer to the delivery conditions.

8.4.3 Disposal

At the end of life dispose the machine according to the local regulations.