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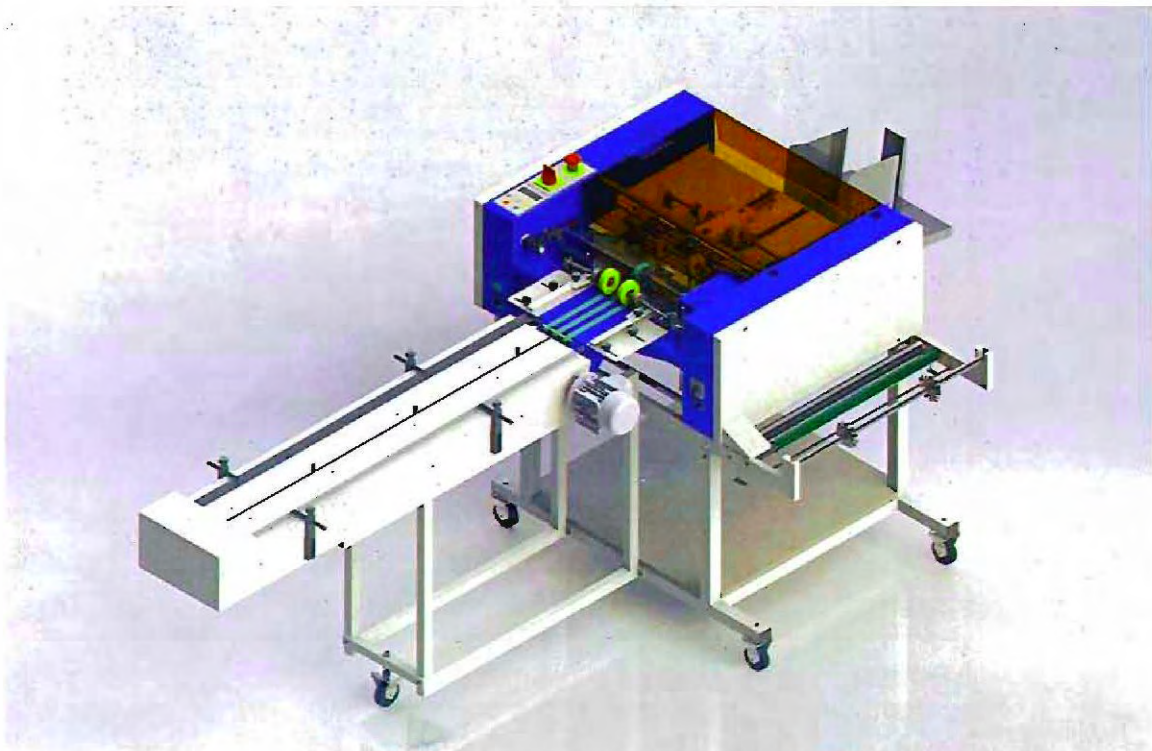
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MANUAL FOR SAFE OPERATION, CHECKS AND MAINTAINANCE PACKAGING MACHINE





Author:
Approved by:

CONTENT:

1. OBSERVED REGULATIONS AND NORMS..... 3

2. TECHNICAL MACHINE DATA 6

3. DIMENSIONAL DRAWING 7

4. MACHINE DESCRIPTION 9

4.1. Basic machine 9

4.2. Basic machine with accessories..... 10

5. INTRODUCTION 11

6. SAFE INSTALLATION INSTRUCTIONS..... 12

6.1. Basic machine 12

6.2. Basic machine with trolley 13

6.3. Basic machine with trolley and supporting bracket with slide table 14

6.4. Basic machine with trolley, supporting bracket and small conveyor..... 16

6.5. Exit stacker installation 16

6.6 Pusher assembly installation 18

6.7. Infeed conveyor installation..... 19

7. MACHINE PREPARATION 20

7.1. Film forming sleeve installation 20

7.2. Width adjustment 21

7.3. Film positioning 23

7.4. Pusher adjustment 26

7.5. Exit stacker adjustment..... 28

8. OPERATION..... 29

8.1. Manual functions..... 29

8.2. Automatic operation 31

9. PARAMETER SETTINGS 33

10. POSSIBLE DEFECTS AND TROUBLESHOOTING 35

11. INSTRUCTIONS FOR SAFE MAINTENANCE..... 39

11.1. Daily maintenance or maintenance before beginning work..... 39

11.2. Monthly or periodical maintenance..... 39

12. SEALING ELEMENTS EXCHANGE 44

13. LIST OF RECOMMENDED IN-STOCK SPARE PARTS 46

14. LIST OF SPARE PARTS..... 46



15. LIST OF SPARE PARTS FOR ELECTRICAL CONTROLS..... 56
 16. DRAWING OF ELECTRICAL CONTROLS..... 56

1. OBSERVED REGULATIONS AND NORMS

The following safety precautions, standards and technical measures were observed at construing the packaging machine type S

- 1.The Health and Safety at Work Act (Official Gazette RS No.56/1999)
- 2.Act Amending the Health and Safety at Work Act (Official Gazette RS No.64/2001)
- 3.Fire Protection Act (Official Gazette RS No.03/2007)
- 4.Standardisation Act (Official Gazette SRS No.59/99)
- 5.Machinery Safety Rules (Official Gazette RS No.25/2006)
- 6.Rules on Health and Safety Requirements for the Use of Work Equipment (Official Gazette RS No.101/04)
- 7.Rules on Industrial Safety with regard to Electric Current Hazards (Official Gazette RS No.29/1992)
- 8.Rules on Examinations of Working Environment, Inspections and Tests of Means of Work (Official Gazette RS No.35/1988)
- 9.Rules on Measures and Standards for Safety at Work with Equipment (Official Gazette RS No.89/1999)
- 10.Rules on Protection of Workers from Risks related to Exposure to Noise at Work (Official Gazette RS No.17/2006),

EC-directives

98/37/EC	Machine Directives
2006/95/EC	Low-voltage Directives
89/336/EC	Electro-magnetic Harmlessness (EMV-Directives)
93/68/EC	Changes of Machine Directives

/ Consistent European Standards

	Safety at Machines; Basic ideas; General
DIN EN 12100-1	Formal theses/Terminological basic ideas, Methodology
DIN EN 12100-	Safety at Machines; Basic



	ideas; General
2	Formal theses / Technical instructions and specifications
EN 294	Safety at Machines; Safety distance against upper extremities reach of dangerous areas
DIN EN 349	Safety at Machines; Minimum distance to prevent injuries on the human body
EN 418	Safety at Machines; EMMERGENCY STOP device; Functional aspect; Formal theses
EN 574	Safety of machinery; Two-hand control devices; Functional aspects; Principles for design
DIN EN 60204	Safety at Machines; Electrical equipment
Del/part/Teil 1	Machines; /General
DIN EN 60947	Low-voltage Devices

European Standards

EN 1870-5	Safety of woodworking machines- Circular sawing machines - Part 5: Circular sawbenches/up-cutting cross-cut sawing machines
EN 414	Safety at Machines; Regulations applying to creating safety standards and their form
EN 574	Safety at Machines; Double controls
EN 953	Safety at Machines; General requirements, shape and construction of the separating safety devices (unmovable or movable)
EN 983	Safety-technical requirements of the fluid-technical devices and parts
EN 1050	Safety at Machines; Risk estimation



European Standards-Extracts

prEN 547	Safety at Machines; Operator Body Measures
Del/part/Teil 1	Basic principles for determining operator body measures
prEN 547	Safety at Machines; Operator Body Measures
Del2	Basic principles for accessible openings measuring
prEN 811	Safety at Machines; Safety distance against lower extremities reach of dangerous areas

prEN 954	Safety at Machines; Safety influential parts of controls
Del/part/Teil 1	General Formal Theses
prEN 1037	Safety at Machines; Energy source and energy outlet break; Unintentional start- up prevention
prEN 1088	Safety at Machines; Blocking device with or without lock; General Formal Theses and Regulations
prEN 23746	Definition of noise and its source; Procedures of bare areas of 3rd-class accuracy over reflective area

National standards

DIN VDE 0100	Regulation of high-voltage devices with nominal voltage up to 1000 V Del 726
ÖVE-EN 13-1	Electrical equipment of industrial machines
Del/part/Teil 1	General directives
ÖNORM S5036	Definition of noise and its source
DIN 24558	Pneumatic devices - Fluid



technique, Basis of
performance

Instructions to prevent accidents and performance instructions

BGB I.Nr: 450/94	Employer Directives AschG idgF 159/2001
BGB I.Nr: 306/94	Safety at Machines – Directives MSVO idF BGBl II Nr. 424/2000
BGB I.Nr: 368/98	Working place Directives AStV
BGB II.Nr: 164/00	Working devices Directives AM-VO
BGB I.Nr: 51/95	Low-voltage Devices NspGV
BGB II.Nr: 101/97	Marking Directives KennV

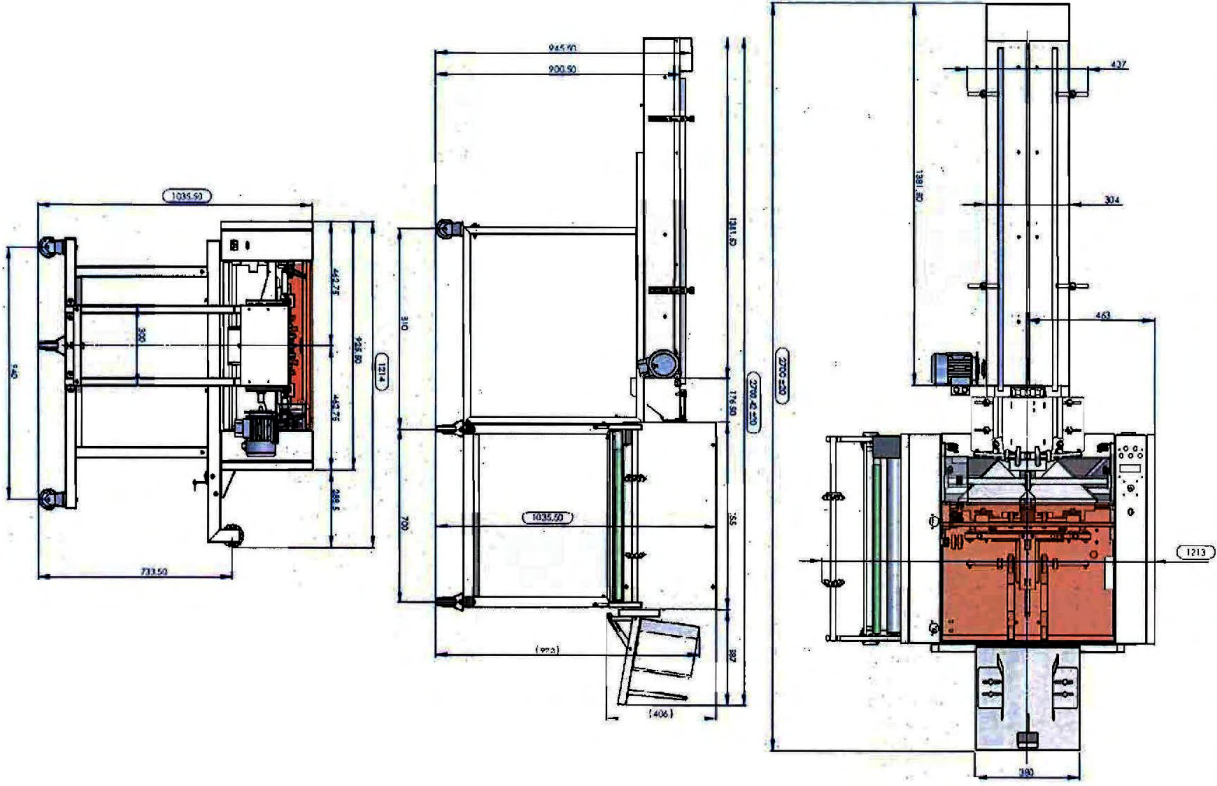
2. TECHNICAL MACHINE DATA

Installed power	500 W
Power supply	220 V / 50 HZ
Control voltage	24 VAC
Weight	100kg
Output (depending on the shape and size of products, thickness, type and width of the film)	Max.45 packages/min
Belt speed	19 m/min
Cross seal length	270 mm
Longitudinal seal length	280 mm
PRODUCT DIMENSIONS:	
A4 format	
Length:	Max/min. 320/220 mm



Width:	Max/min.	245/150 mm
A4 format with the pusher		
Length:	Max/min.	320/160mm
A5 format		
Length:	Max/min.	320/160 mm
Width:	Max/min.	160/135 mm
Max. thickness		12 mm
Min. thickness		Paper sheet thickness
Dimensions of film forming sleeve (gap), A4 and A5		4mm; 8mm, 10mm, 12mm, 15mm
OPERATING HEIGHT:		
Basic version		300 mm
Machine on the trolley		900 mm
FILM:		
Max. film width		570 mm
Max. film reel diameter		250 mm
Max. film thickness		35 myc

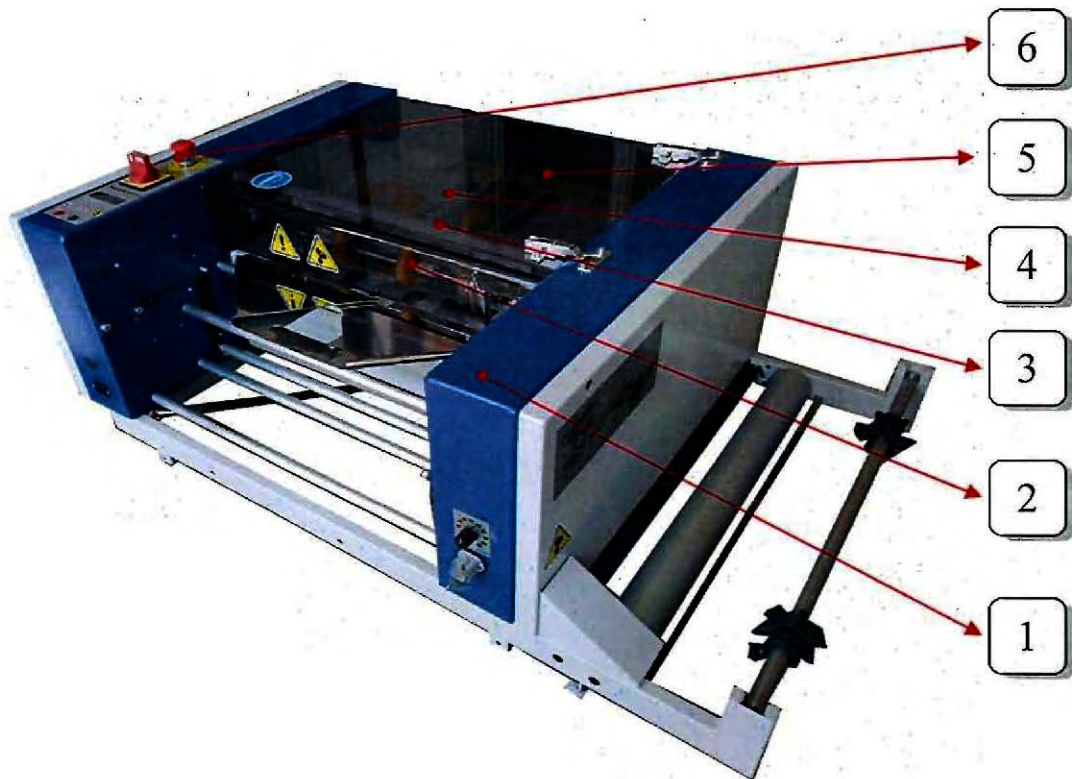
3. DIMENSIONAL DRAWING





4. MACHINE DESCRIPTION

4.1. Basic machine

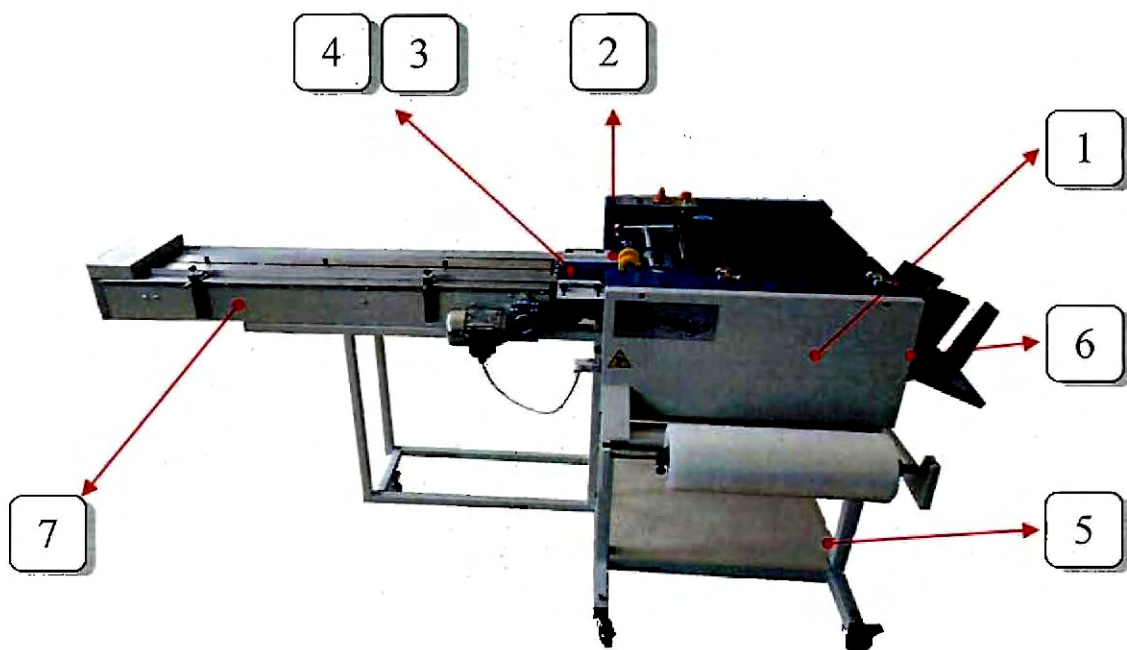


Picture 4.1.

1. casing
2. film forming sleeve (conformer)
3. pressing wheels
4. sealing bar
5. exit conveyor
6. control panel



4.2. Basic machine with accessories



Picture 4.2

1. basic machine
2. pusher
3. supporting bracket with side guides and small conveyor
4. supporting bracket with side guides and slide table
5. trolley
6. exit stacker
7. infeed conveyor



5. INTRODUCTION

This manual contains important information regarding operation of the packaging machine SPEED BAG H EV. We recommend you read it carefully in order to become familiar with the machine and to learn the proper handling!

Proper handling along with regular maintenance not only extends operational life span of individual parts, it is also a precondition for warranty claims.



We expressly refer to the fact that S... V like all electrically powered machines represents potential risk for operating personnel, if appropriate safety measures are not observed.

Therefore:

- machine installation,
- maintenance,
- controls and adjustments,
- film exchange,
- repair of electrical and mechanical parts
should be performed by professional staff in accordance with appropriate safety measures.

The machine operator working directly on the wrapping machine has to observe the following:

- to turn off the main electric switch before any intervention on the machine (film exchange, width adjustment, ...),
- not to remove, disconnect or block safety switches,



- to immediately inform competent persons in case of any malfunctions.



Removal, disconnection or blocking of a safety switch is potentially hazardous not only for the machine operator, but also for persons standing nearby.

6. SAFE INSTALLATION INSTRUCTIONS

Avoid installing the wrapping machine in damp and dusty environment!
Allowed environment temperatures range from 0 to +40 °C

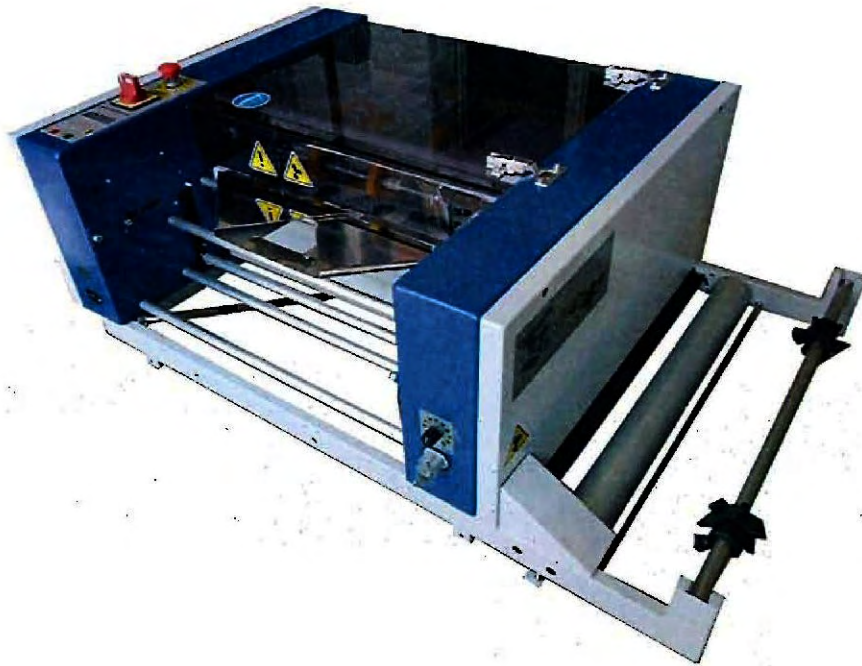


Electric connection has to be carried out according to applicable safety regulations. It may be carried out by a qualified person only.

Mains connection is a single-phase socket with earthing or a three-wire cable with 1,5 mm wire diameter of a single wire.

6.1. Basic machine

Place the machine using an appropriate fork-lift truck onto an even table of appropriate height

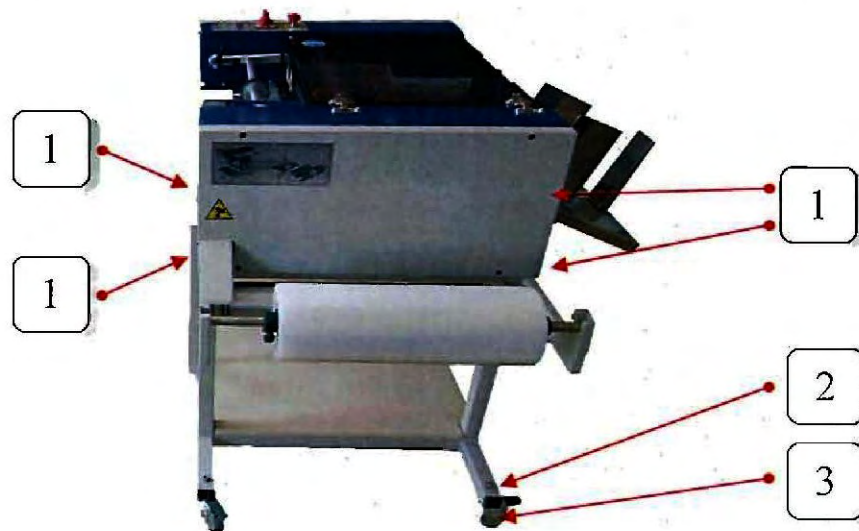


picture 6.1.

Pay attention to the total operational height (operational height of the machine alone is 300 mm), which must be suitable for handling.

6.2. Basic machine with trolley

When transporting or installing the machine with a fork-lift truck carefully place the forks under the machine base in position indicated in picture 6.2, »A«.





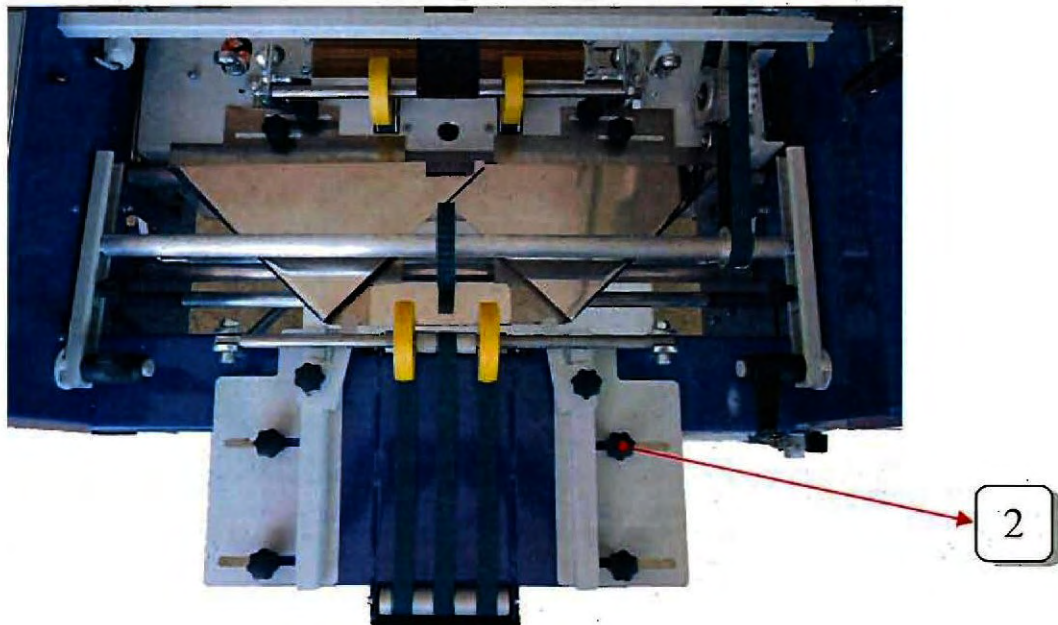
Picture 6.2.

With four M10 screws fasten the wheels to the trolley and place the plate (pict. 6.2, pos. 2 and pos.3). Mount the machine onto the trolley using an appropriate fork-lift truck ensuring the feet on the machine base slide into the trolley tubes and secure them with four M5 screws (pict. 6.2, pos. 1). Avoid unwanted trolley movements by arresting the wheel brakes.

6.3. Basic machine with trolley and supporting bracket with slide table



Picture 6.3.



Picture 6.3.1.

Place two open slots behind the fixing plate on each side of the supporting bracket and fasten them provisionally with four M8 screws (pict. 6.3., pos. 1). Install the slide table into the recess in the supporting bracket and fix it with 4 screws (pict. 6.3.1., pos. 2.) Check proper distance from the rear edge of the slide table to the film forming sleeve and right angle that is alignment with the longitudinal machine line (pict. 6.3. and pict. 6.3.1.). Use a water level and measuring angle in order to align the slide table level with the front vertical machine side. After necessary corrections tighten the M8 screws.



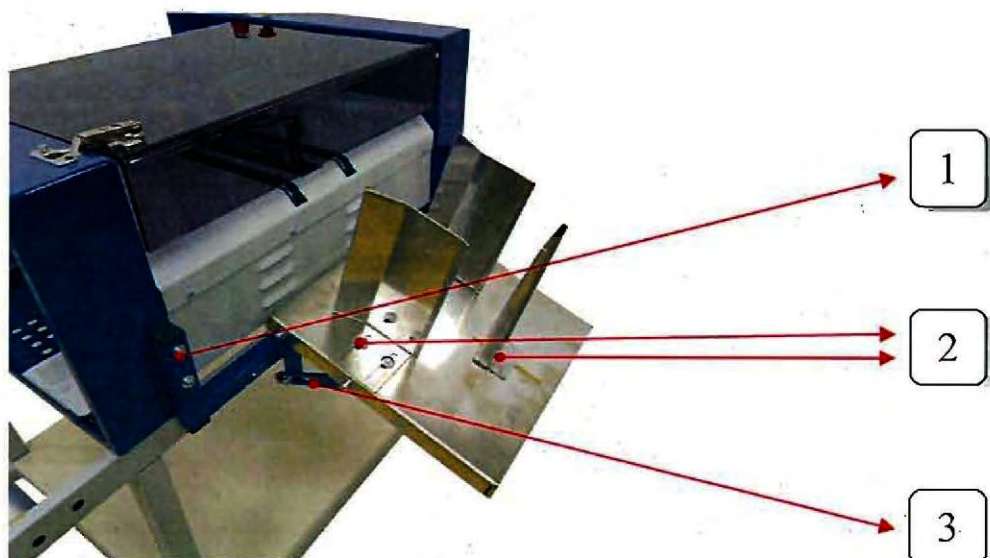
6.4. Basic machine with trolley, supporting bracket and small conveyor



Picture 6.4

Mount the supporting bracket as described under point 6.3., however, instead of the slide table mount the small conveyor into the recess in the supporting bracket. (pict. 6.3.1. and pict. 6.4.). Mount also both pressing wheels (pict. 6.4., pos. 2). Make sure that both pressing wheels are pressing on the exit conveyor roller right in the middle. Plug the power supply cable into the socket (pict. 6.4., pos. 4). With four screws mount a conveyor shield to the supporting bracket (pict. 6.4., pos. 3). Align the conveyor position as described under point 6.3.

6.5. Exit stacker installation



Picture 6.5.



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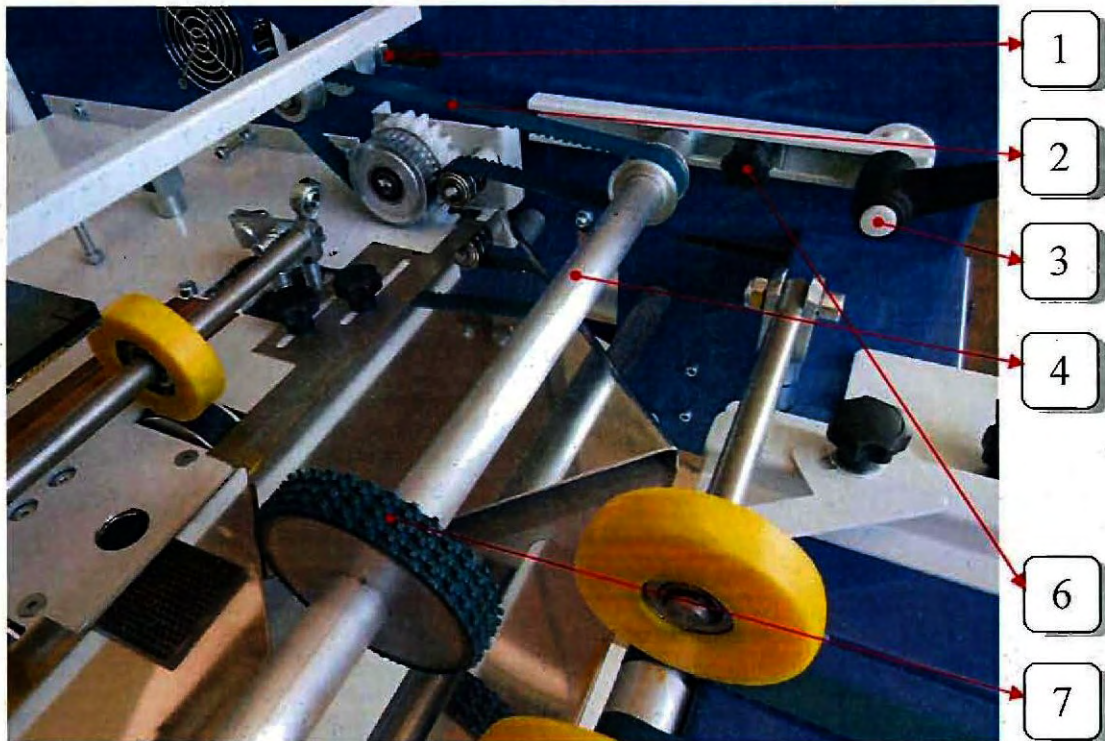


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Mount the exit stacker as shown in picture 6.5. using 4 screws, see pos. 1. If necessary adjust the inclination by adjusting the handle (pict. 6.5., pos. 3). Use knobs (pict. 6.5. pos. 2) to adjust the position of the lateral and longitudinal limit stops of the stacker.



6.6 Pusher assembly installation

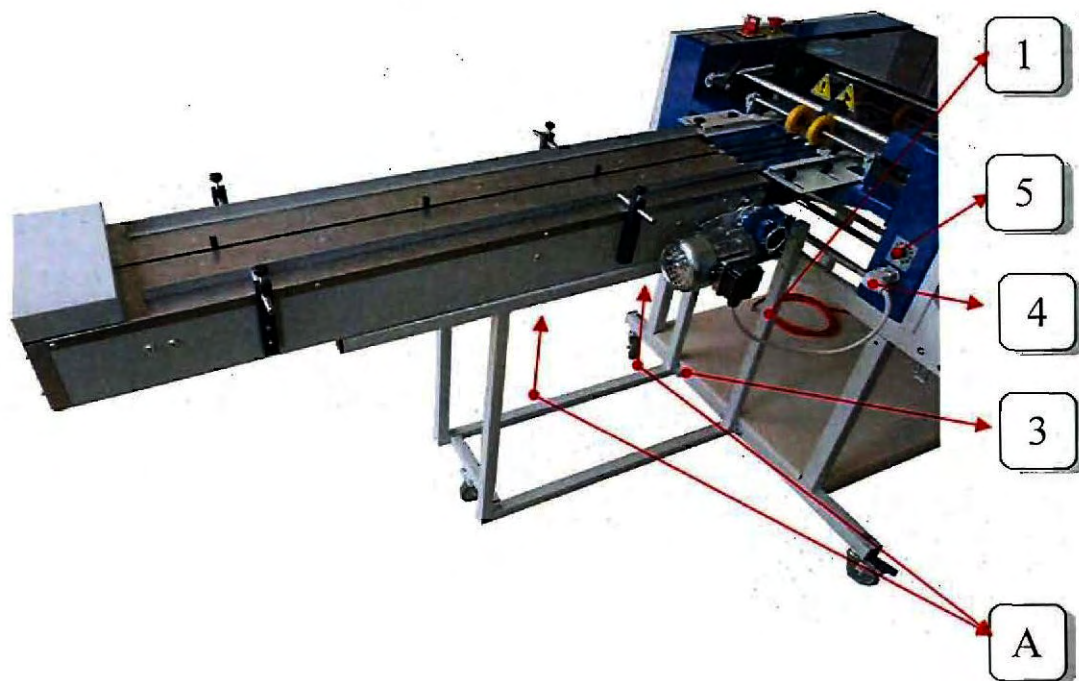


Picture 6.6.

Insert the toothed belt tensioning into the borehole at the front end of the slot (elongated hole), push it along the slot and temporarily fix with a nut (pict. 6.6. pos 1). With M12 handles fasten both pusher roller holding handles (pict. 6.6. pos. 3). Install the roller assembly (pict. 6.6. pos. 4) together with the toothed belt (pos. 2) as shown in picture 6.6. With handles (pos. 3) and knobs (pos. 6) position the pusher wheel (pos. 7) as required (see description in chapter 7.4) visually checking the roller alignment (pos. 4) with all the machine lines in all directions. When the roller is placed in the right position and properly aligned, tighten the toothed belt by pushing the toothed belt tensioning along the slot (elongated hole) in rearward direction and fix it with a nut (pict. 6.6., pos. 1). Mount the shield so as to have the knob positioned on the right.



6.7. Infeed conveyor installation



Picture 6.7.

Mount the supporting brackets (pict. 6.7, pos. 1) onto the trolley and base framework of the machine using screws, pos. 3. As shown in picture 6.7. mount also front cross beam to the conveyor supporting bracket (pict. 6.7., pos. 2). Place the conveyor on the frame and push it lengthwise to the right position (up to the shield edge of the small conveyor if this is installed or approx. 2 mm from the edge of the film forming sleeve if the small conveyor is not installed). With screws »A« in picture 6.7. fix the conveyor in place. Plug in the electrical cable of the conveyor (pict. 6.7., pos. 4). Align the transition levels from the conveyor into the film forming sleeve (conveyor should be approx. by 1 mm higher) or to the small conveyor (flush alignment) and test the feeding flow with several products. This transition must run perfectly smoothly!



7. MACHINE PREPARATION

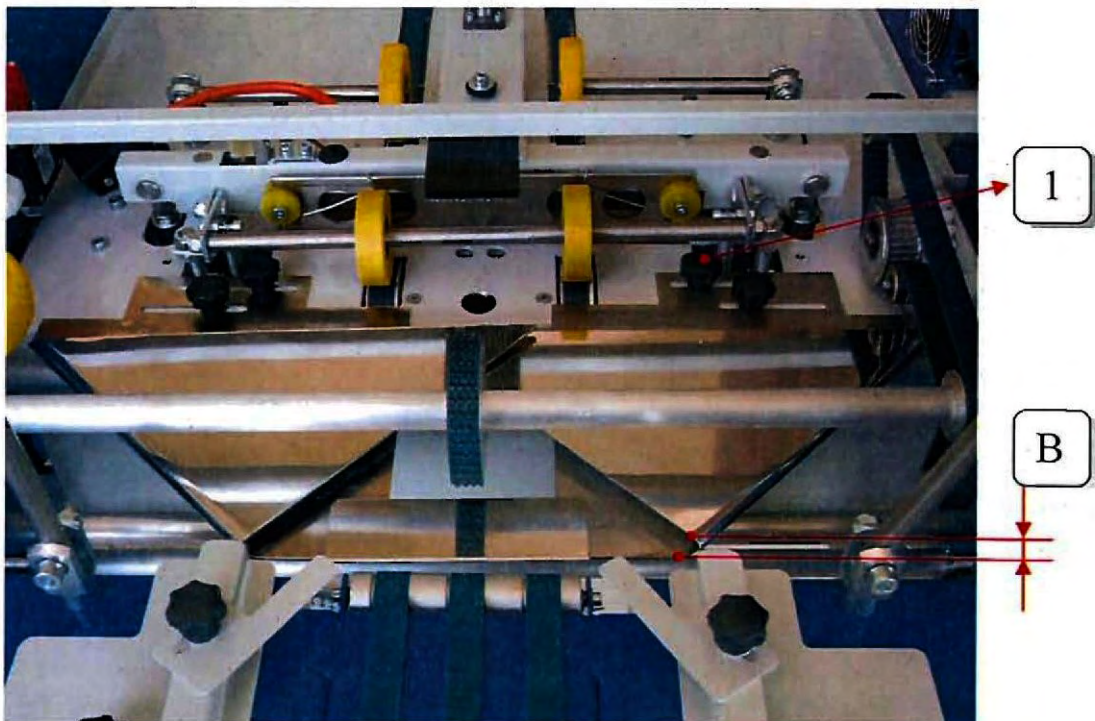


WARNING!

Before you start preparing the machine, turn off the main switch!

Open the lid.

7.1. Film forming sleeve installation



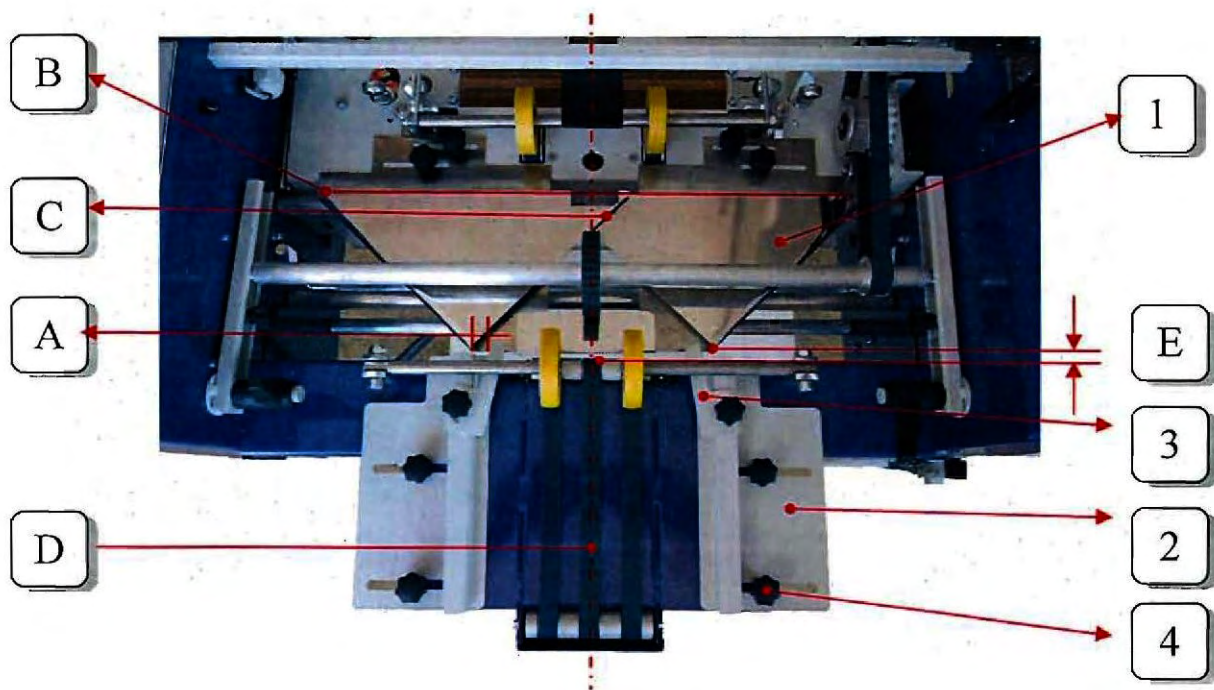
Picture 7.1.



The film forming sleeve is attached with four threaded knobs (pict. 7.1., pos. 1). Select a suitable film forming sleeve (A4 or A5 format and appropriate thickness »B«) according to the length/width of the products, pict. 7.1.

In the case of exchanging the film forming sleeve format shift the supporting bracket with the slide table or small conveyor accordingly (see description under point 6.3., pict. 6.3.) as well as adjust the conveyor position anew (see description under point 6.7., pict. 6.7.).

7.2. Width adjustment



Picture 7.2

Place the product between the guides of the small transporter or slide table (pict. 7.2., pos. 2). The guides should be adjusted so that there is a 1 mm clearance on each side. Pay attention to the parallel position of the guides being positioned in the middle of the machine (pict. 7.2., pos. »D«). Fasten all 4 threaded knobs (pict. 7.2., pos. 4).



Adjust the film forming sleeve by leaving an approx. 3–5 mm clearance »A« (pict. 7.2., pos. »A«) depending on the thickness. On adjusting make sure that the line »B« is straight!

Check the clearance »E«, which should be approx. 2 mm, and if necessary adjust it by shifting the supporting bracket (see description under 6.3. and pict. 6.3., pos 1).

Check the height of the lower level of the film forming sleeve and of the upper level of the small conveyor (or the slide table). The film forming sleeve should be lower by 1–2 mm! Adjust this passage by pressing down or raising the front edge of the film forming sleeve (before that make clearance by turning both limit stops, pict.7.2., pos. 3!).

The limit stops (pict.7.2. pos. 3), which prevent product edges from rolling up before entering the film forming sleeve, should be adjusted so as to perform their function without obstructing the feeding of products and without interfering with the flow of the film. The limit stops should reach a few mm into the film forming sleeve, about 1 mm from the upper edge.

Make sure that the sides of the film forming sleeve do not touch each other (pict. 7.2., »C«)!

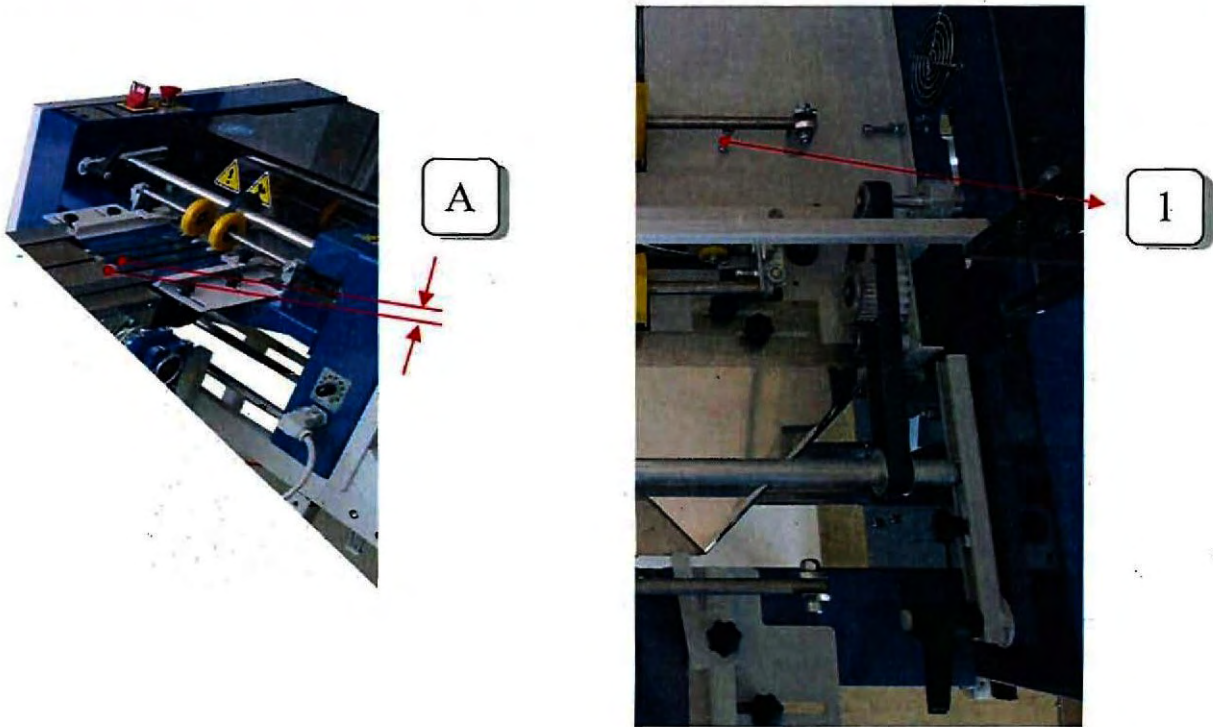
The gap should be approx 2 mm.

Test the adjustments by feeding the product (packaging object) several times up to the sealing bar! The product must have an absolutely smooth flow!



WARNING! These adjustments are essential for the efficient performance of the machine!

If the product is more than 5 mm thick, raise the pressing wheels by means of screws (pict. 7.2.1., pos.1) allowing for an unobstructed flow of the product at full pressure.



Picture 7.2.1

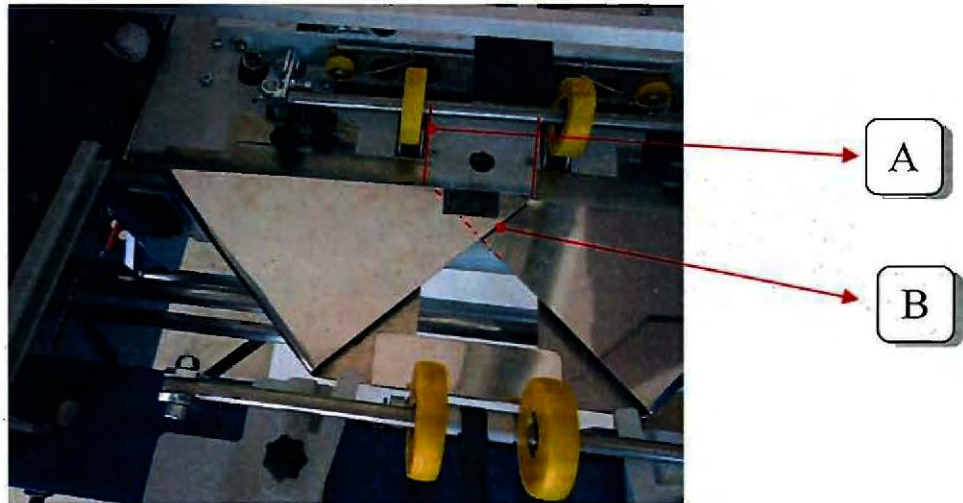
Adjust the longitudinal guides of the conveyor and the transition from the conveyor to the small conveyor (or into the film forming sleeve) allowing for a perfectly smooth feeding flow of the product (pict. 7.2.1., pos. A)!

7.3. Film positioning

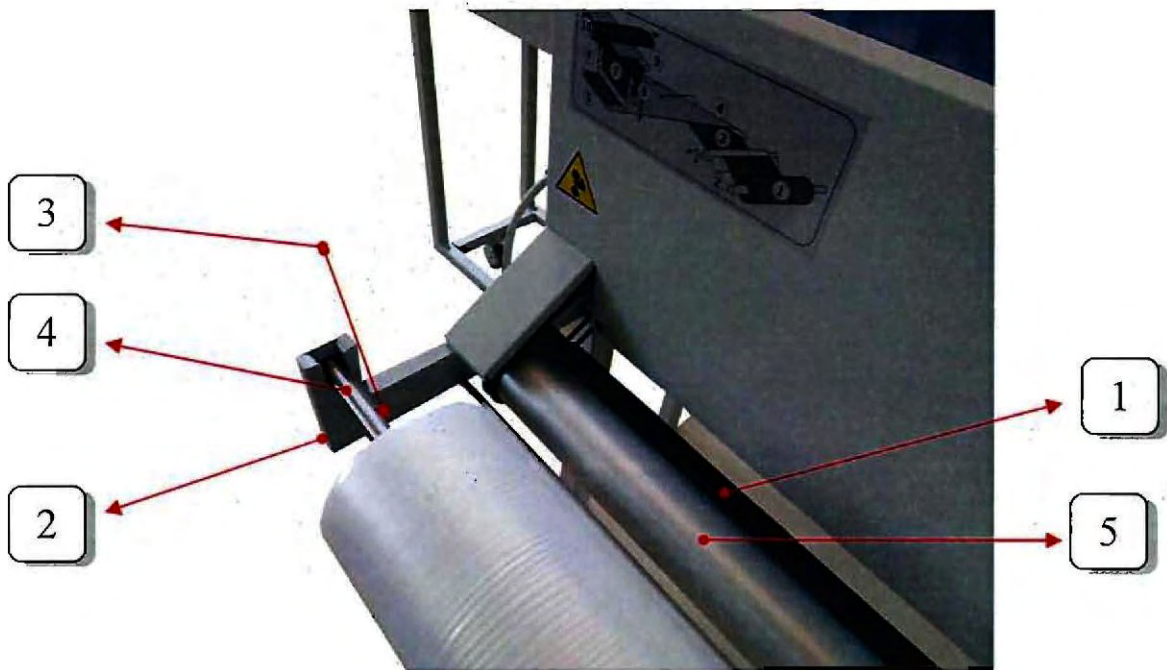
1. Turn off the main switch.
2. Open the lid.
3. Turn aside the limit stops (pict.7.2., pos. 3) in order to free the passage between the film forming sleeve and the small conveyor or the slide table.
4. Push the pressing roller (pict.7.3.1., pos.1) away from the film drive roller (pict.7.3.1.,pos.5).



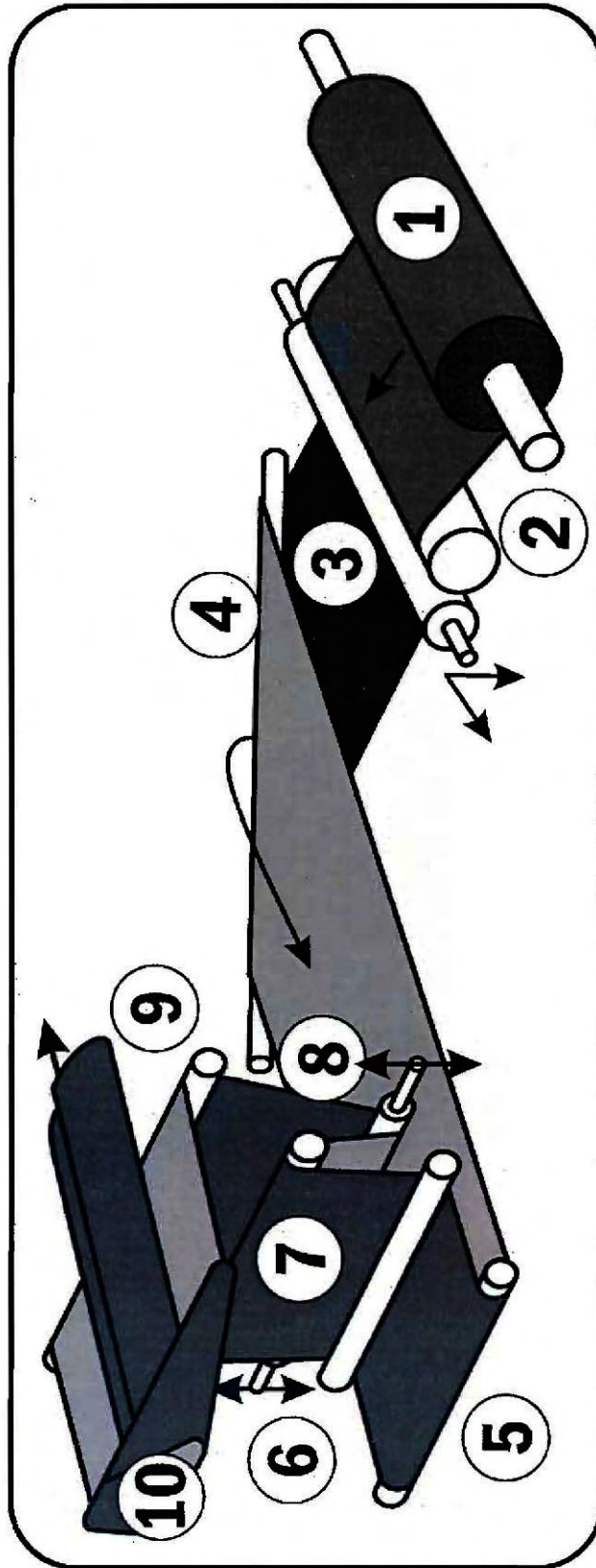
5. Put the film reel on the axle (pict.7.3.1., pos. 4) and fasten it with both holders (pict.7.3.1., pos. 3). Make sure that the axle with the reel spins correctly in the sockets of the holder.
6. Pull the film by hand according to the scheme (pict.7.3.2. The film should flow over the support of the machine base (pict.7.3.1., pos. 2) und under the casing.



Picture 7.3.



Picture 7.3.1



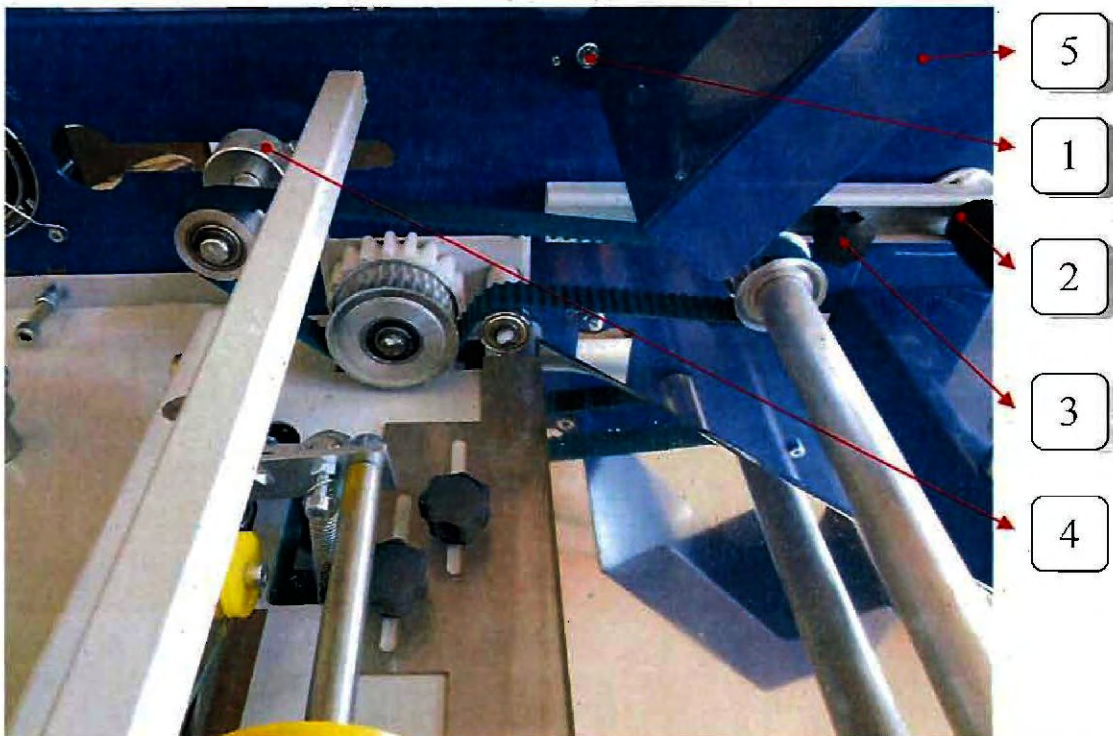


7. Pull the film through the gap between the film forming sleeve and small conveyor or slide table.
8. Using a wooden strip (approx. 40 cm long, 4 cm wide, 4 mm thick) push the film through the film forming sleeve and under the sealing bar (pict. 7.2, »E«). Dimension »A« in pict. 7.3.2. should be 3–4 cm.
9. Check overlapping of the film parts over each other (pict. 7.3.2, »B«).
10. Pull the film manually from behind the sealing bar and make sure that the film is centred in the middle, between both lateral sides of the machine. If necessary shift the film reel a bit to the left or to the right (pict. 7.3.1., pos. 3) in order to ensure a continuous symmetrical (i.e. centred) flow.

Pull as much film as to make sure it runs steadily, smoothly and symmetrically!

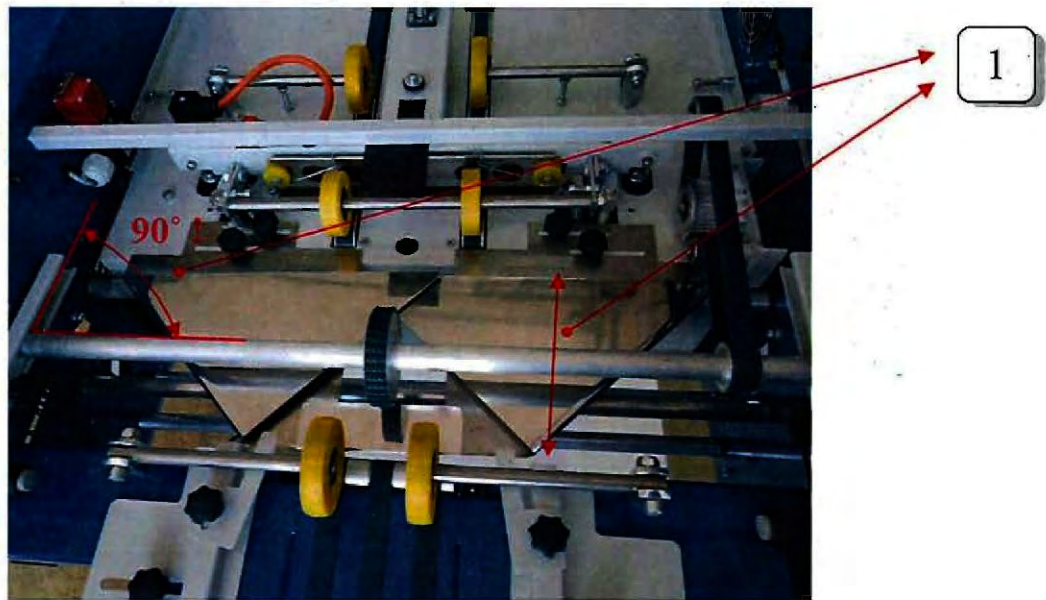
11. Return the pressing roller (pict. 7.3., pos. 1) back to its original position in which it presses against the reel drive roller
12. Return also the limit stops (pict. 7.2, pos. 3) back to their original position and fix them.
13. **Test the smooth flow of the product through the film forming sleeve from under the sealing bar!**

7.4. Pusher adjustment





Picture 7.4

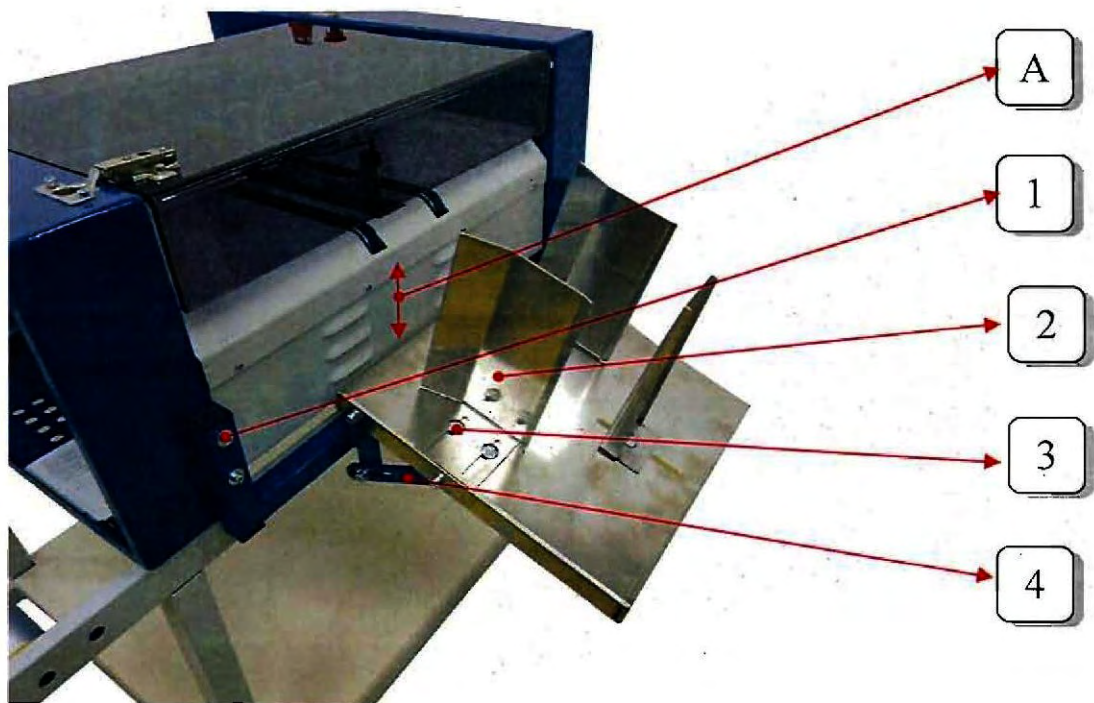


Picture 7.4.1.

1. Turn off the main switch.
2. Open the lid.
3. Unscrew the threaded knob (pict. 7.4., pos. 1) and by turning open the shield (pict. 7.5.). Do not do this before opening the lid – the closed lid obstructs opening of the shield!
4. Using handles for height adjustment (pict. 7.4., pos. 2) and threaded knobs for longitudinal adjustment (pict. 7.4., pos. 3) position the pusher wheel accordingly between the arms of the film forming sleeve (pict. 7.4.1.).
5. Check the alignment of the pusher roller (pict. 7.4.1., pos. 1) in all directions and make adjustments if necessary.
6. Check by feeding a product under the wheel: friction should be as low as possible at still sufficient feed rate.
7. Tighten the toothed belt by pushing the belt tensioner down the slot (elongated hole) and fix it in position by tightening the nut (pict. 7.4., pos. 4).
8. Close the shield and fix it with the threaded knob (pict. 7.4., pos 1.).



7.5. Exit stacker adjustment



Picture 7.5.

1. Check the height adjustment (pict. 7.5., »A«) and if necessary correct it with adjusting bolts (pict. 7.5., pos. 1).
2. Using adjusting knobs – nuts (pict. 7.5., pos. 3) adjust the lateral and longitudinal limit stops, (pict. 7.5., pos. 2).
3. If necessary correct the inclination of the stacker table by adjusting both handles (pict. 7.5., pos. 4).



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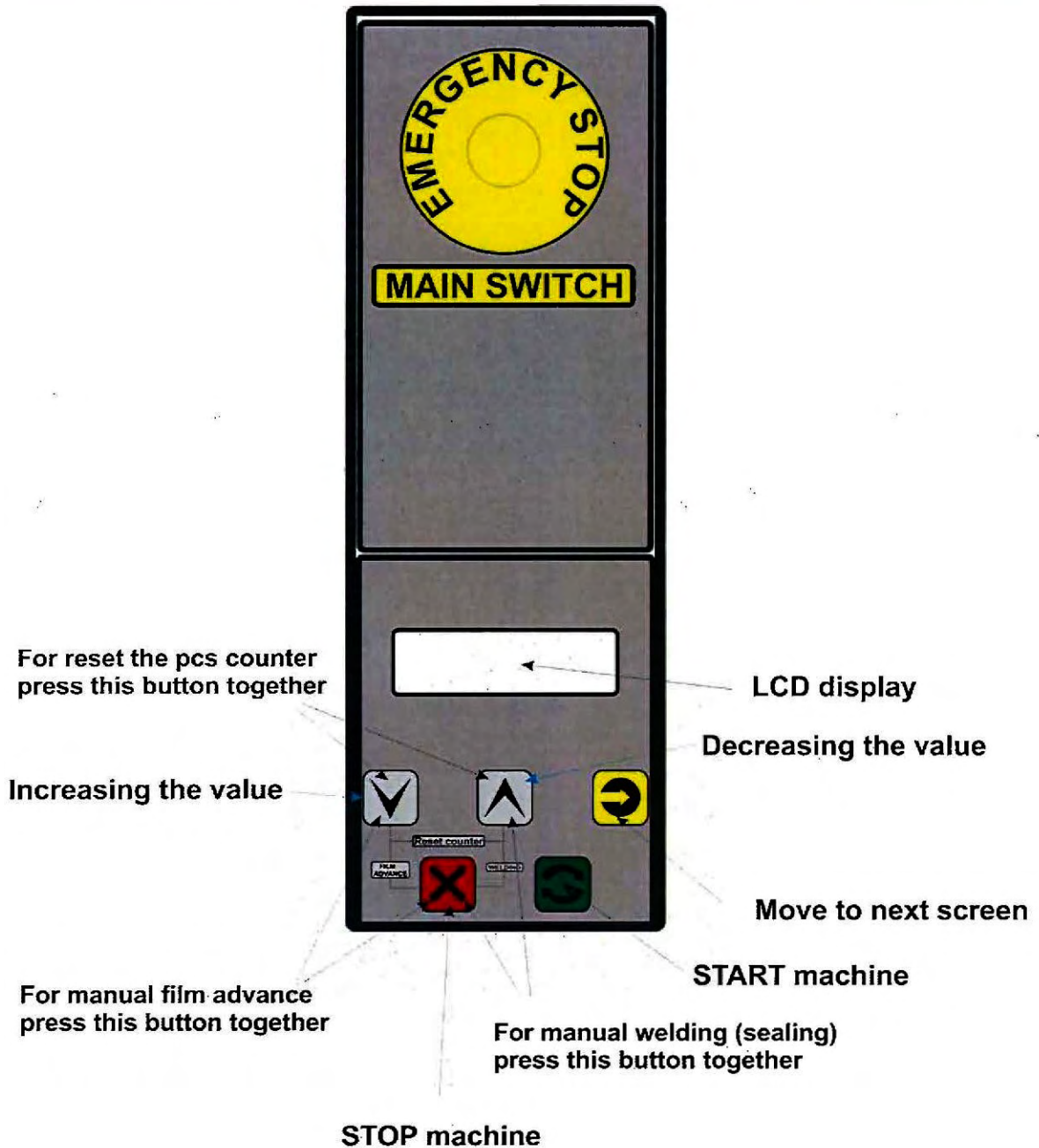
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8. OPERATION

8.1. Manual functions







Picture 8.1.


1. Check if the safety switch is turned off.
2. Close the lid.
3. Turn on the main switch. The machine is now warming up and this phase is shown in the display. When the message «OK, READY» appears, the machine is ready.





4. By pressing the key  and the key  (»film advance«) simultaneously the feeding of the film can be activated. The film is advancing as long as the mentioned keys remain pressed.

Feed as much film as to make sure it runs steadily, smoothly and symmetrically!

5. By pressing the key  and the key  (welding) simultaneously the film can be sealed and cut off. Press the keys briefly, you need not keep the keys pressed throughout this cycle. Remove manually the film residual from behind the machine (without opening the lid).

6. Press the  (start) key. Machine is now ready for automatic operation.

In the case of restarting the machine, you have to press again the  (start) key. Wait for the message »OK, READY«.

7. The machine can be turned off by pressing the  (stop) key and then turning off the main switch.

8.2. Automatic operation

Follow the steps described in the preceding chapter under points 1, 2, 3 and 6, if necessary 4 and 5. With the machine version MACHINE WITH CONVEYOR adjust the feed rate with the knob shown in position 5, picture 6.7., and readjust it during operation accordingly. Place the products between the conveyor guides one by one carefully.

With the machine version WITH SLIDE TABLE you need to push the product through the film forming sleeve until the automatic cycle gets activated i.e. provided the pusher is installed until the pusher pushes the product forward.

Take care to empty the stacker in good time.




The machine will operate correctly only if the products are of the same width and thickness. If any of these two parameters is changed, the machine needs to be readjusted. Note that the same products may differ in width!



On laying the products on the conveyor take care that there is always enough space between them. Do not lay the products with too little space between them watch the cycles through the lid.



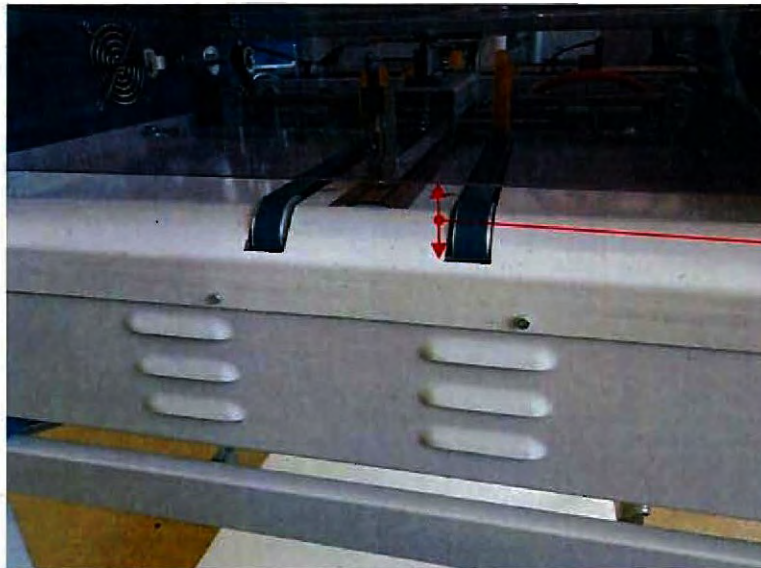
After a certain interval without packaging operations in the automatic mode the machine stops automatically. In order to restart the machine press the  (start) key and wait until the message »OK, READY« appears in the display.



In case of any congestion or pile-up press the emergency shutdown button.



Under no circumstances reach with hands under the lid towards the longitudinal sealing bar! Risk of burning! (picture 8.2., »A«)!






A

Picture 8.2.

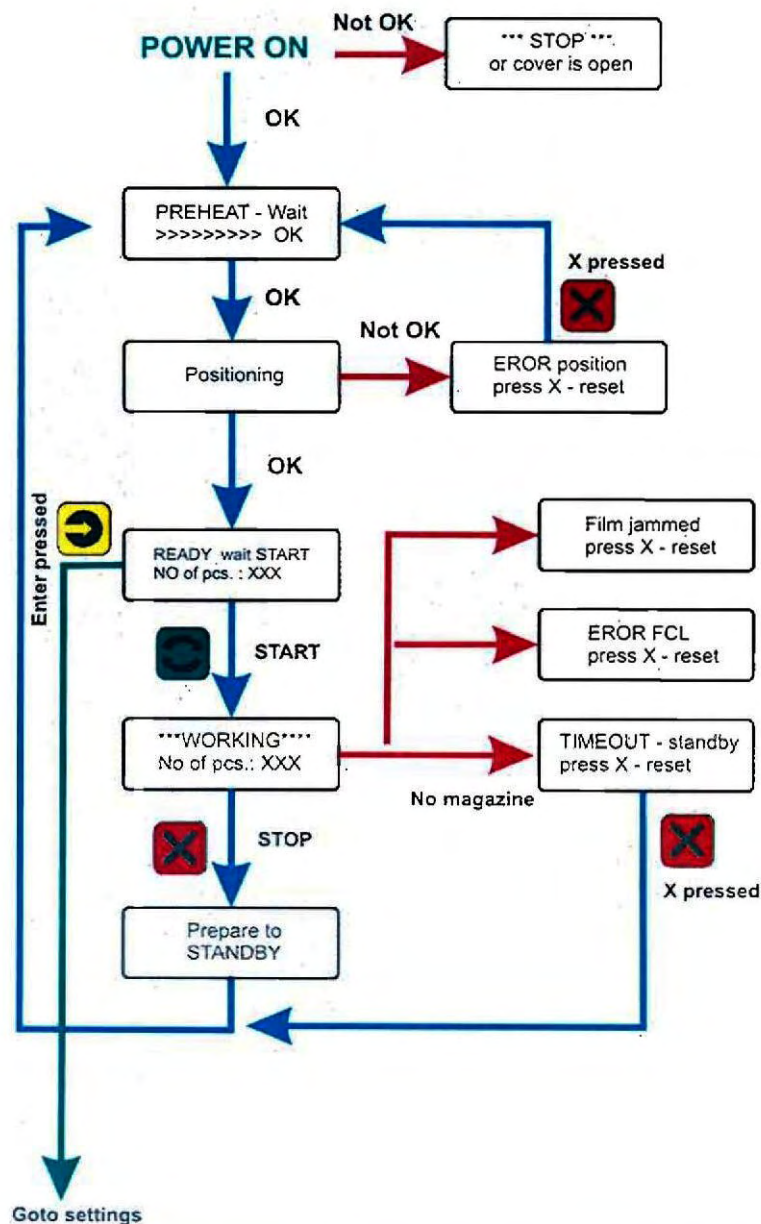


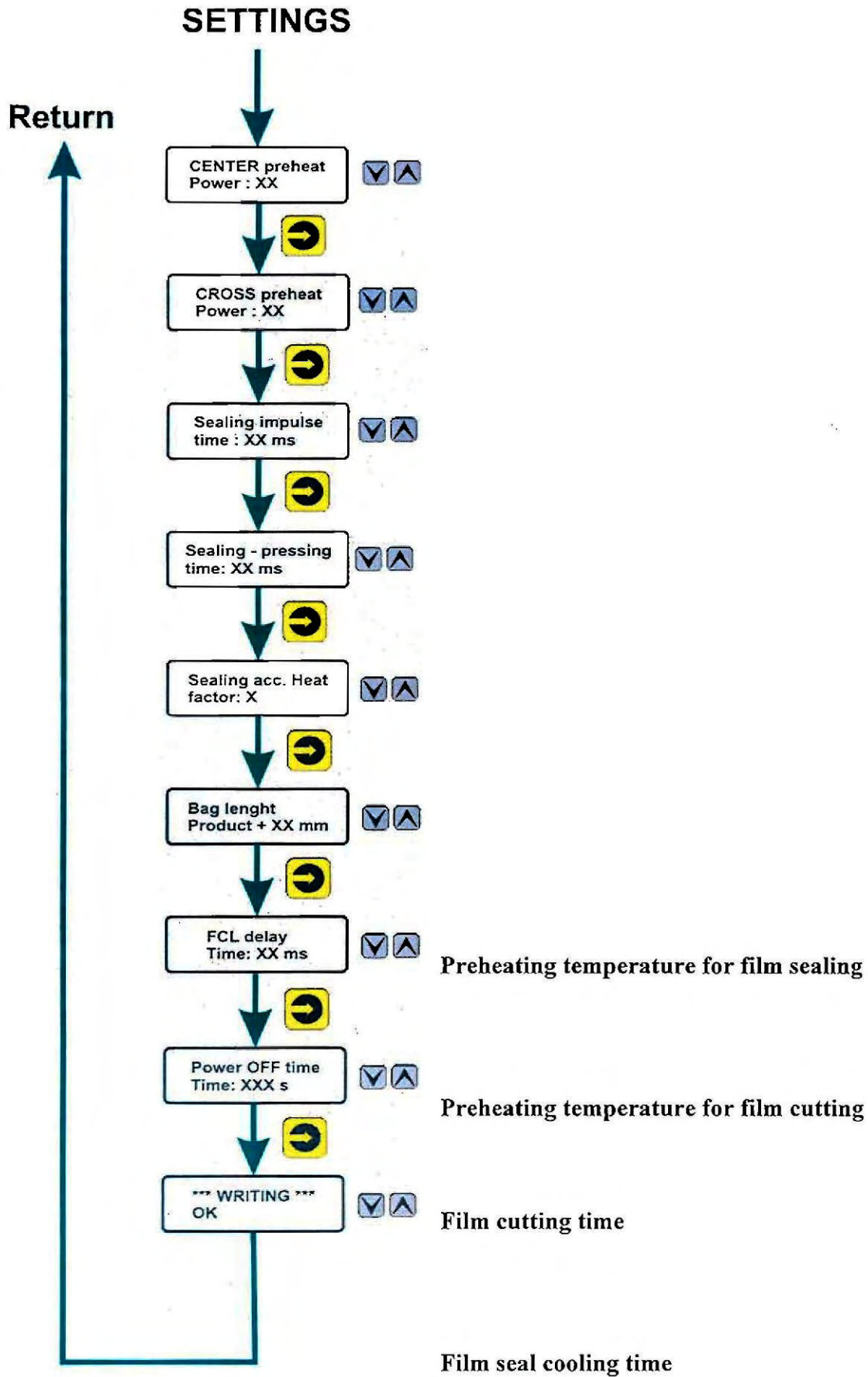
9. PARAMETER SETTINGS

1. In order to switch between the menus press the  button, but only then when the machine is not in automatic mode, STOP button is not pressed and the casing opened.

To change values press the  and  buttons.

BASIC MENU







Heat accumulation factor between sealing cycles: if sealing wire gains heat between the cycles, increase factor, if the wire starts cooling, decrease it

Bag length behind magazine: increase it, if you want longer bag

Bag length in front of magazine: decrease it if you want longer bag

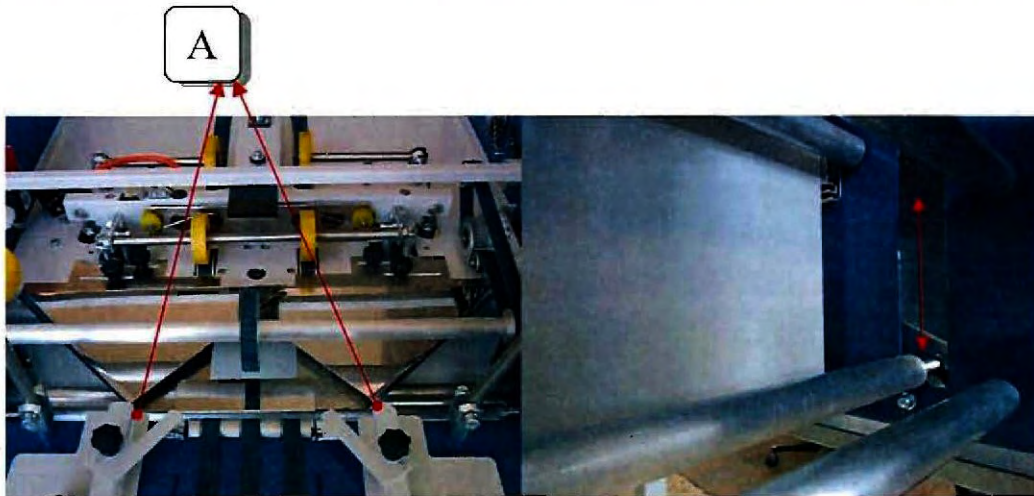
Time to stop the machine when inoperative : after this time machine stops if there is no operation

Memory entry of all the settings and return to basic menu

10. POSSIBLE DEFECTS AND TROUBLESHOOTING

1. Film not flowing smoothly:

- check the installation of the film
- check the eventual contact (pict.7.2, »A«, «C« and »E«) and if necessary provide for clearance
- check the roller and if necessary reposition it in place, (pict. 7.3.1., pos. 1)
- check the edges of the film forming sleeve (pict. 10.1, pos. »A«) and if necessary press the clamp plate against the sleeve arms
- check the operation of the pressing wheels (see chapter 11.2, point 4)
- check the proper width of the film (pict. 7.3., »A«)
- check the smooth running of all the rollers, over which the film is conducted
- during the film feed check movement of the swinging roller, which should be floating between limit stops without hitting against them (pict. 10.1.1.)

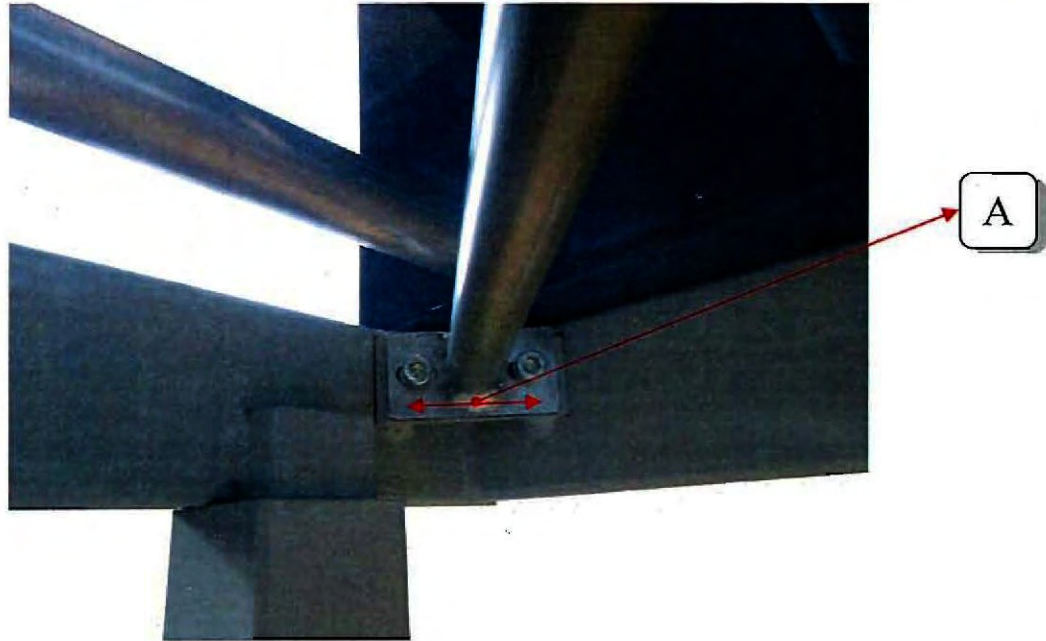


Picture 10.1.

Picture 10.1.1.

2. Film not flowing symmetrically in the centre:

- shift the film reel to the left/right
- check the adjustment of the film forming sleeve at point »B« and »C«, pict. 7.2.
- check the pressure of the pressing wheels as described in the chapter 11.2.4.
- if necessary correct the diagonal adjustment (pict. 10.2, pos. 1)



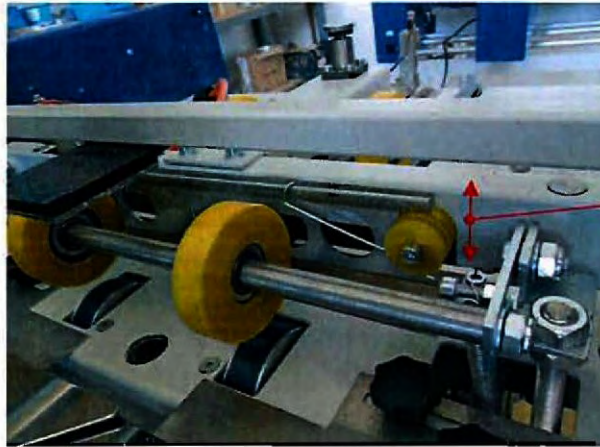
Picture 10.2.

3. Film not sealed or not sealed properly:

- check the sealing parameters
- dismantle the sealing bar and check teflon tape on the surface and on the sealing bar and exchange it if necessary; clean the wire of the sealing bar; exchange the teflon tape over the sealing wire of the sealing bar
- check the adequacy of the film material: some types of films require teflon lining also over the sealing wire of the cross sealing bar; change the film type or install the teflon tape



- check the tension of both sealing wires and if necessary tighten/exchange them
- check smooth movement of the sealing bar protection (pict. 10.3., pos.1)



Picture 10.3.

4. Imperfect longitudinal seal:

- check the sealing parameters
- check the adequacy of the film material
- if necessary exchange the spring of the longitudinal sealing bar with a stronger one or add another spring

5. Film sticking to the sealing bar:

- clean the sealing wire, exchange the teflon lining
- check the sealing parameters or adequacy of the film



11. INSTRUCTIONS FOR SAFE MAINTENANCE



WARNING! Before any maintenance procedure turn off the main switch and lock it!

11.1. Daily maintenance or maintenance before beginning work

Inspect the machine visually, especially the sealing bar. If the teflon linings are burnt, exchange them. If film residuals get accumulated on the sealing wire, clean the wire with a piece of wood or film. Do not use sharp objects!

Check the tension of the toothed belt of the pusher and if necessary retension it (see chapter 7.7.)

11.2. Monthly or periodical maintenance



Turn off the main switch and lock it!



The mentioned procedures may be carried out by a qualified person only!

1. Check the tension on all of the toothed belts and retension them if necessary. For tensioning the drive belt of the small conveyor (pict. 11.2, pos.1) tighten the tensioning roller (pos. 3) and in order to retension the other two belts (which however should be tensioned first) tighten the first roller (pos.2). For tensioning the drive belts of the machine first remove the protection cover (pict. 11.2.1., pos.1), unscrew the 4 screws and pull out the carrying plate in position 2 in order to expose the tensioning roller (pict. 11.2.2., pos. 1). Tighten the tensioning roller if necessary. For better exposure you should pull out the carrying plate on guides backwards and then turn it up in vertical position and fix with two screws (pict. 11.2.4. pos 1.), (note that the film forming sleeve must be removed first).

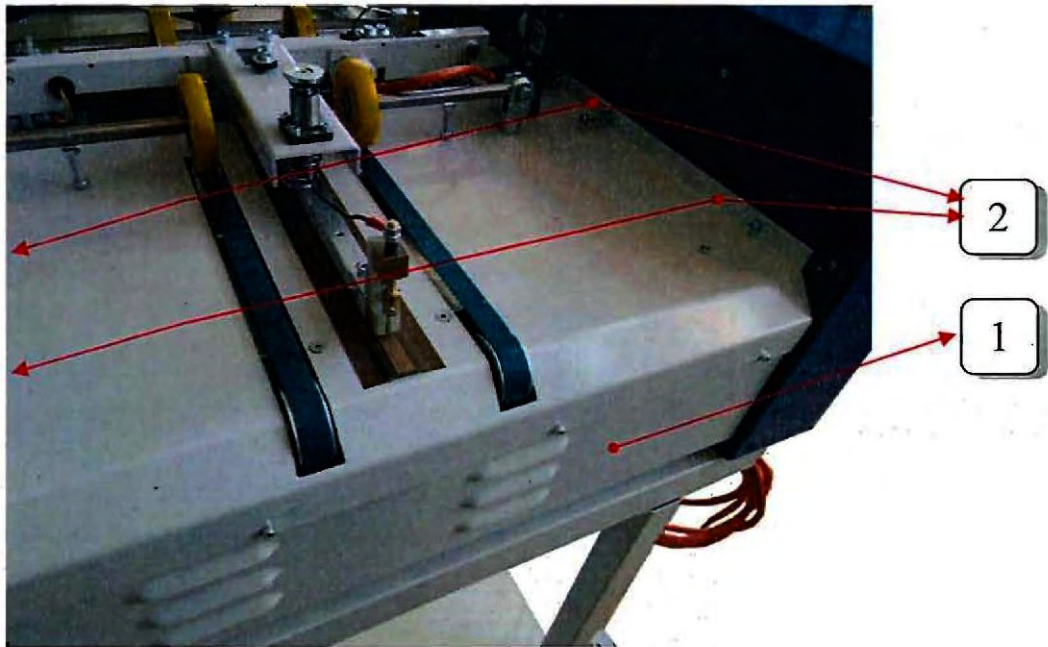


2. Check the tension of the round drive belts of film feed drive (pict. 11.2.3., pos. 1). Insufficient tension can be seen also in roller slip (pict. 11.2.3, pos. 2) and as a consequence of this in imperfect film feed. In order to exchange these round belts you need to dismantle the side panel (pos. 4), shield (pos. 5) and both rollers (pos. 2 and 3).

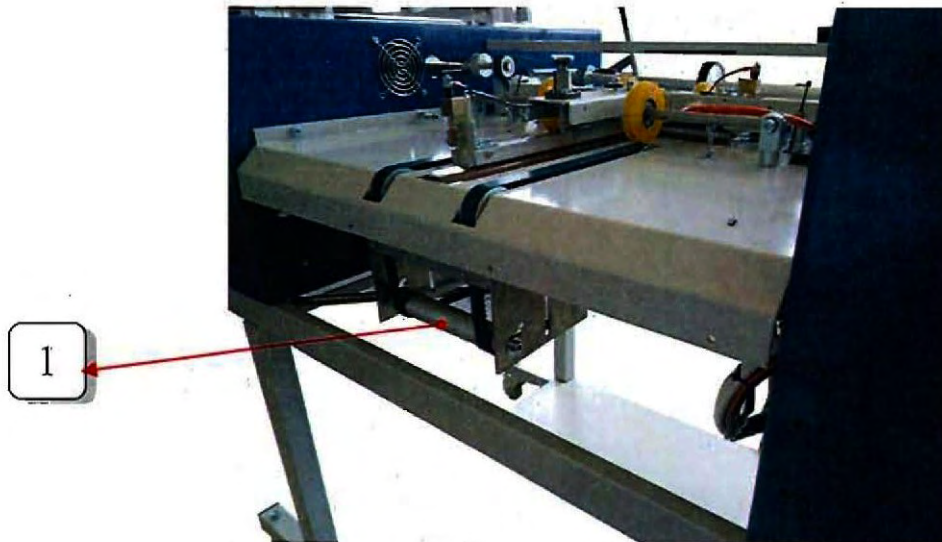
3. Lubricate the movable handle parts (pict. 10.3., pos. 1).



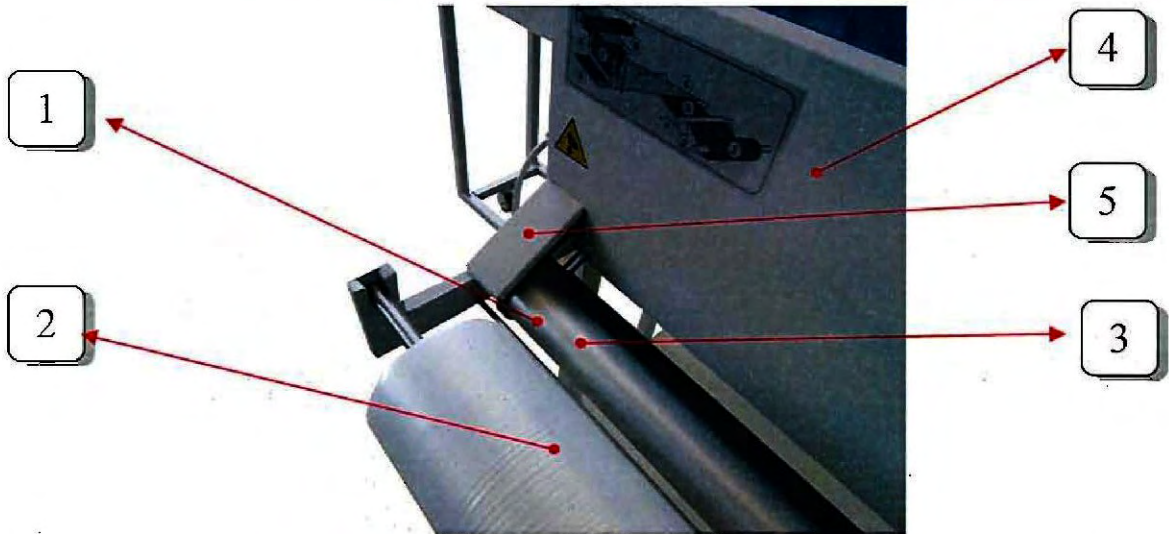
Picture 11.2



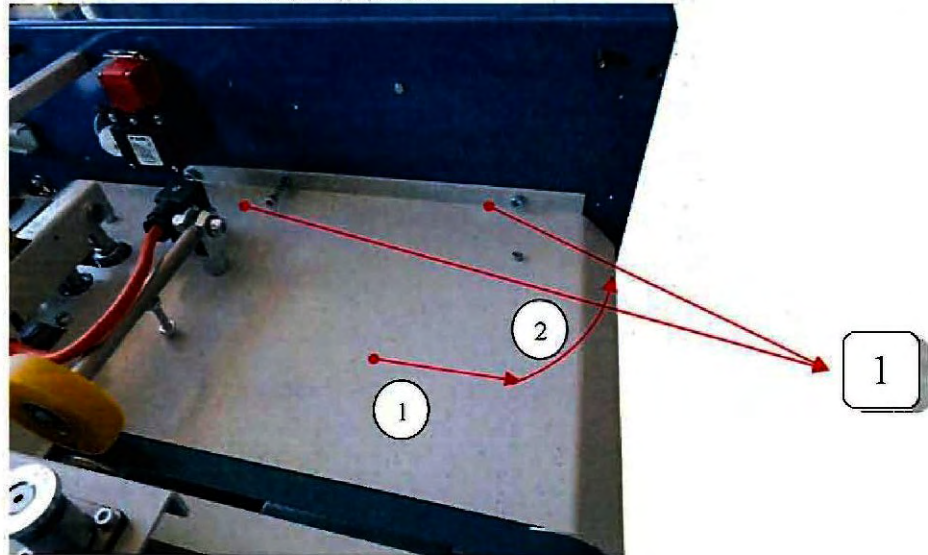
Picture 11.2.1.



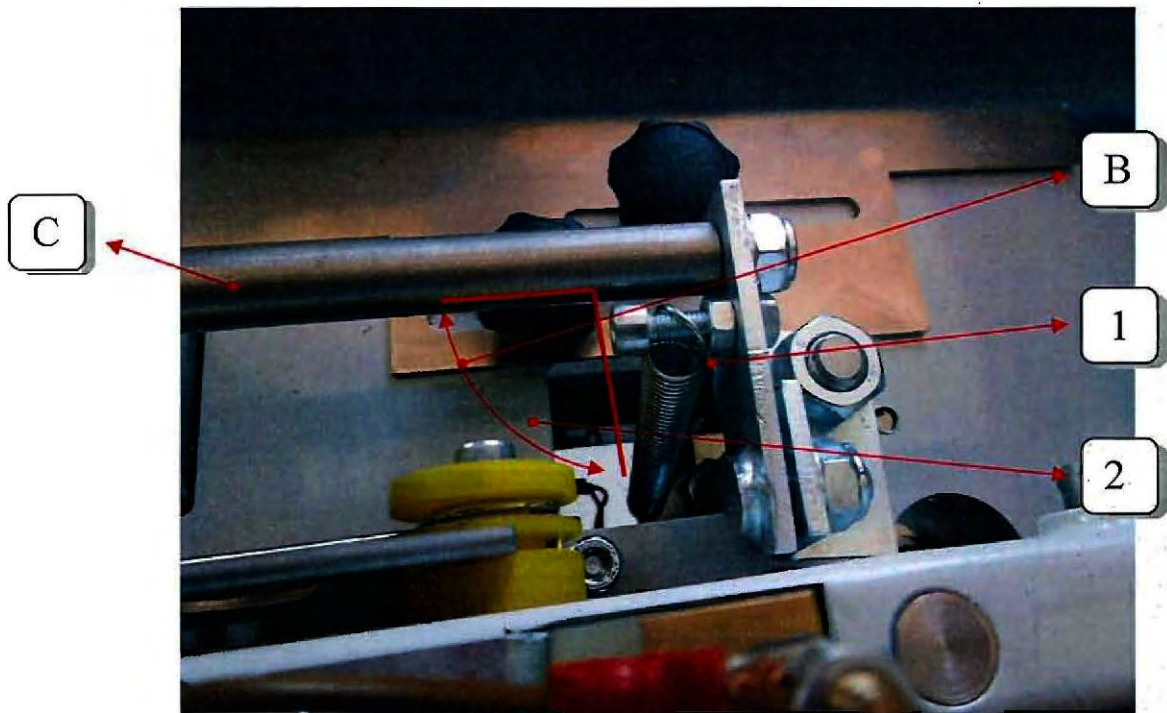
Picture 11.2.2.



Picture 11.2.3.



Picture 11.2.4.



Picture 11.2.5.

4. Check the correct pressure of the pressing wheels

Carry out a test observing the following steps:

- Close the lid.
- Turn on the main switch and wait until the machine warms up.
- Press both keys for film feed and simultaneously press the »EMERGENCY BUTTON«
- Open the lid
- Raise both pressing wheels in the middle of the axle by a couple of millimetres and drop them (pict. 11.2.5, »C«): the pressing wheels must press on the wheels below firmly. If this is not achieved, check and readjust the right angle (pict. 11.2.5, »B) and by tightening or loosening the nut (pict.11.2.5, pos. 1) correct the parallel alignment of both pressing wheels
- Check also the tension of the spring (pict.11.2.5., pos.2).



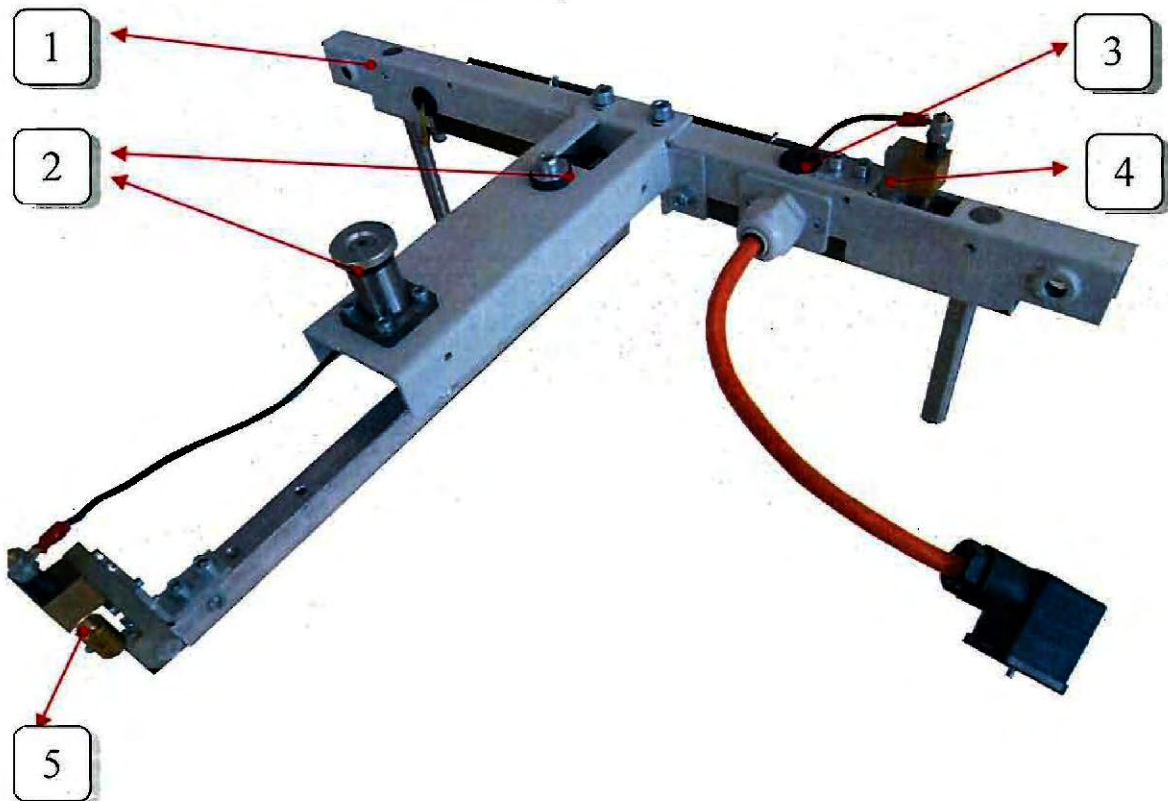
12. SEALING ELEMENTS EXCHANGE



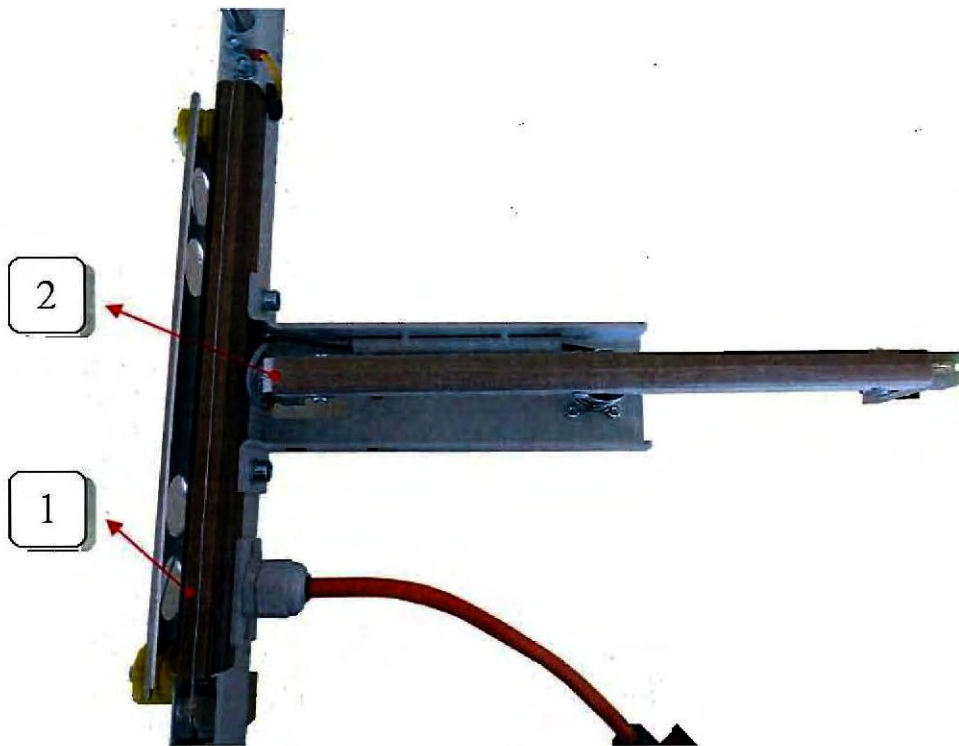
These procedures may be carried out only by a qualified person in strict accordance with all safety measures.



Turn off the main switch and lock it!



Picture 12.



Picture 12.1.

After removing eyebolts (pict.12., pos. 1), take the sealing bar out of the guides. Unscrew also screws in position 2, picture12, and take the longitudinal bar out of the guide (pict. 12.1.).

In order to exchange the sealing wire of the longitudinal bar unscrew the screw on the tensioning (pict 12., pos. 5), fasten with it the new wire and tighten the new wire over the screw in position 2. The tensioning spring must be compressed after tightening the screw in position 2 (and installation of sealing wire pict. 12.1.).

In order to exchange the sealing wire of the cross bar unscrew the screw in position 1, picture 12.1, by unscrewing the screws in position 3., picture 12, pull out the tensioning in position 4, picture 12, and exchange the sealing wire according to description for the longitudinal bar. Before exchange of the sealing wire always exchange also the teflon linings if damaged (burnt). Do not forget to attach the teflon lining after finished installation of the sealing wire on the longitudinal bar – attach the lining over the sealing wire.

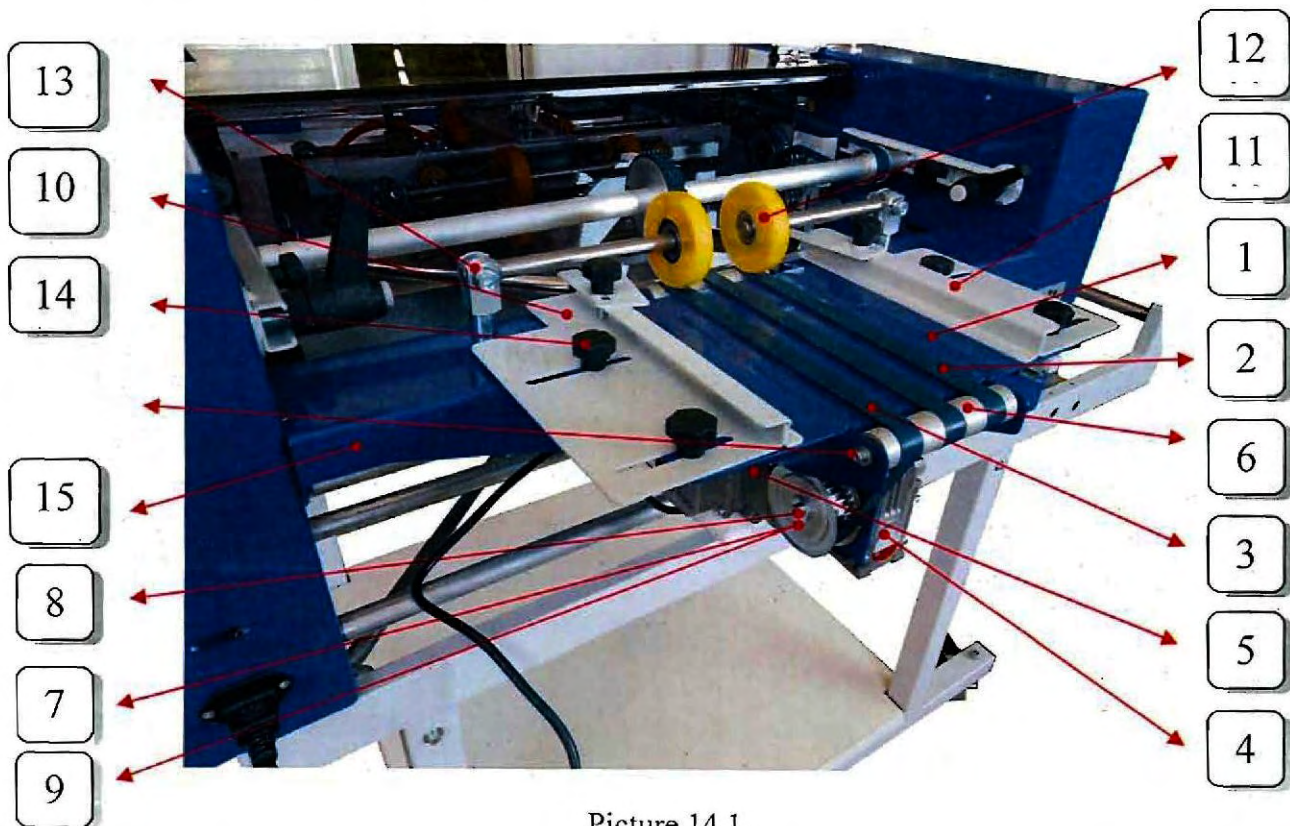
Every time you dismantle the sealing bar, inspect and if necessary exchange the teflon linings under the sealing bar.



13. LIST OF RECOMMENDED IN-STOCK SPARE PARTS

1.	sealing wire	45022
2.	self-adhesive teflon tape, width 50 mm	45024
3.	self-adhesive teflon tape, width 10 mm	45025
4.	double-sided self-adhesive teflon tape, width 50 mm	45026
5.	silicone rubber, width 15 mm	45023
6.	sealing bar protection spring, set of 2 pcs	45029
7.	round drive belt of film feed drive, 2 pcs	45058

14. LIST OF SPARE PARTS

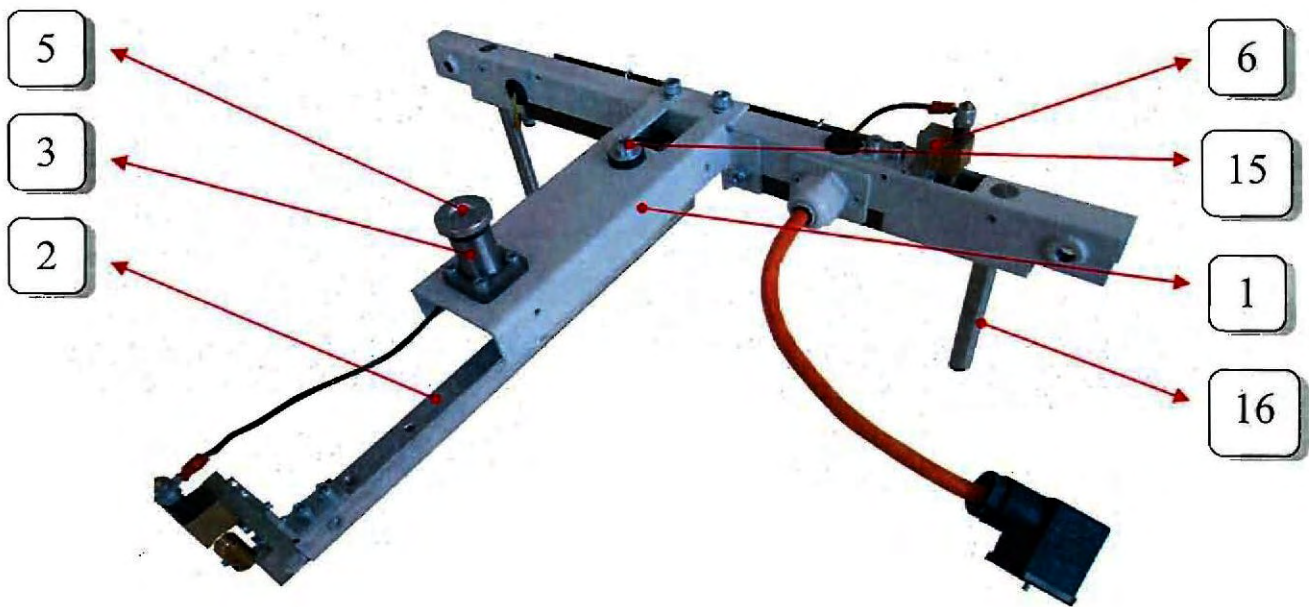


Picture 14.1.

1.	Conveyor assembly	45001
2.	Toothed belt	45002
3.	Toothed belt	45003
4.	Gear-box	45004
5.	Motor	45005
6.	Roller assembly, with axle	45006

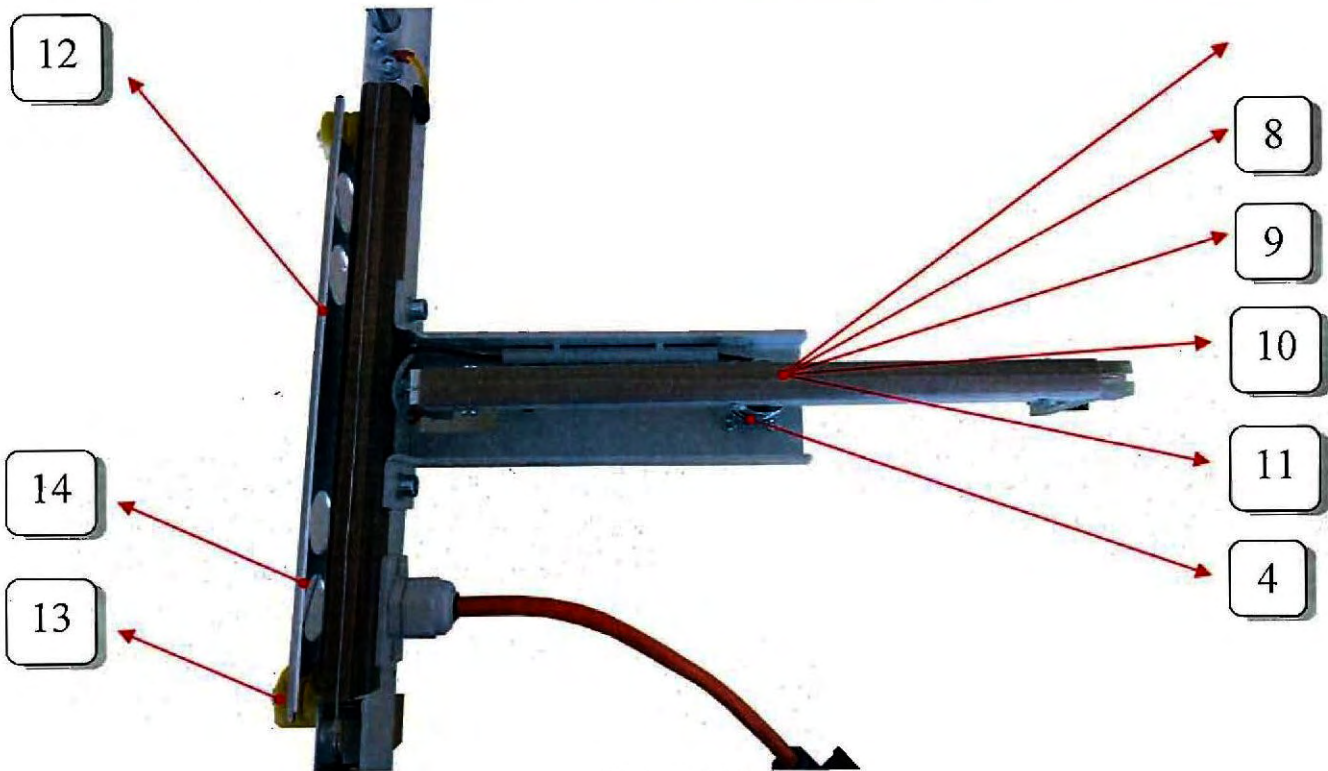


7.	Drive belt pulley	45007
8.	Tensioning roller	45008
9.	Drive axle	45009
10.	Guide – left	45010
11.	Guide – right	45011
12.	Pressing wheel	45012
13.	Pressing wheel assembly	45013
14.	Knob	45014
15.	Supporting bracket	45015



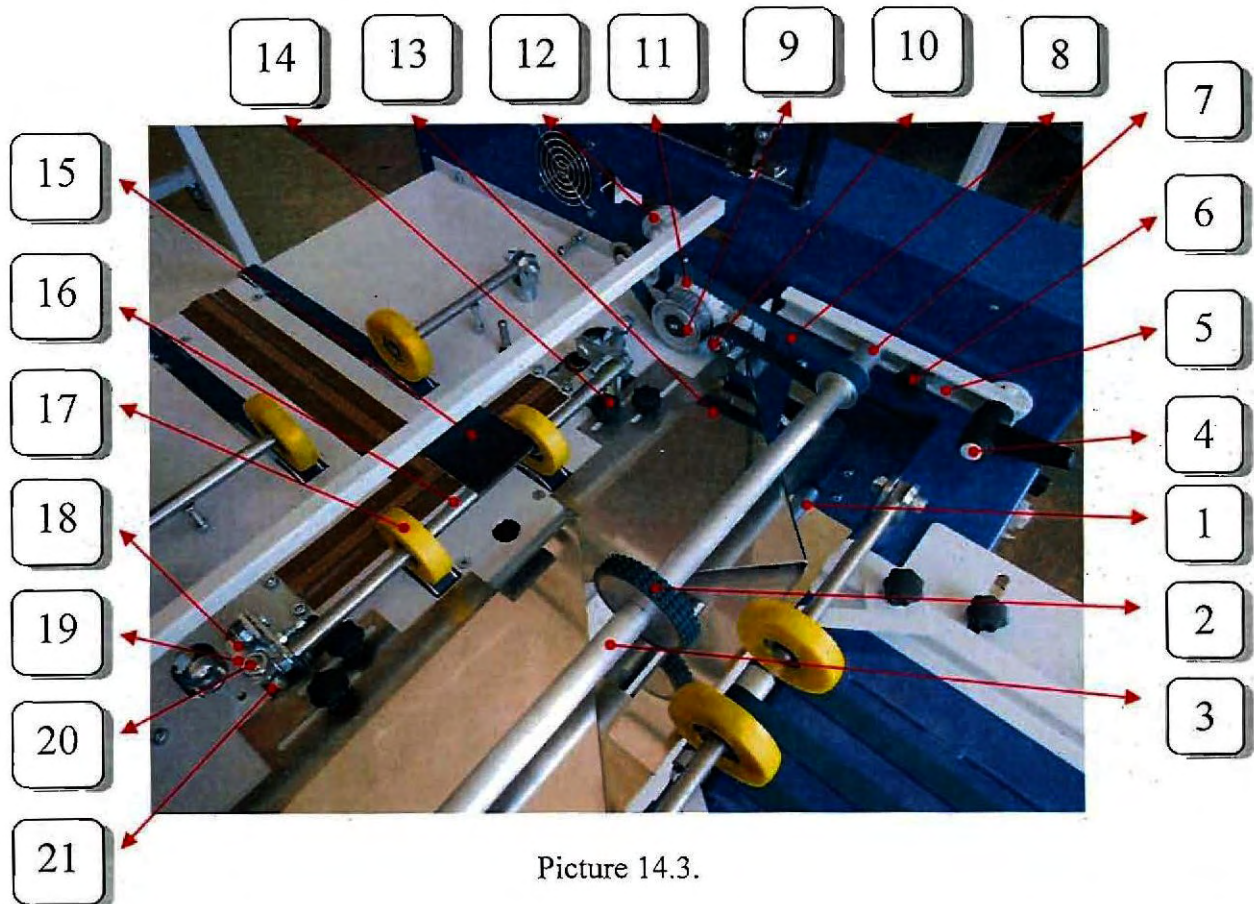
Picture 14.2.

7



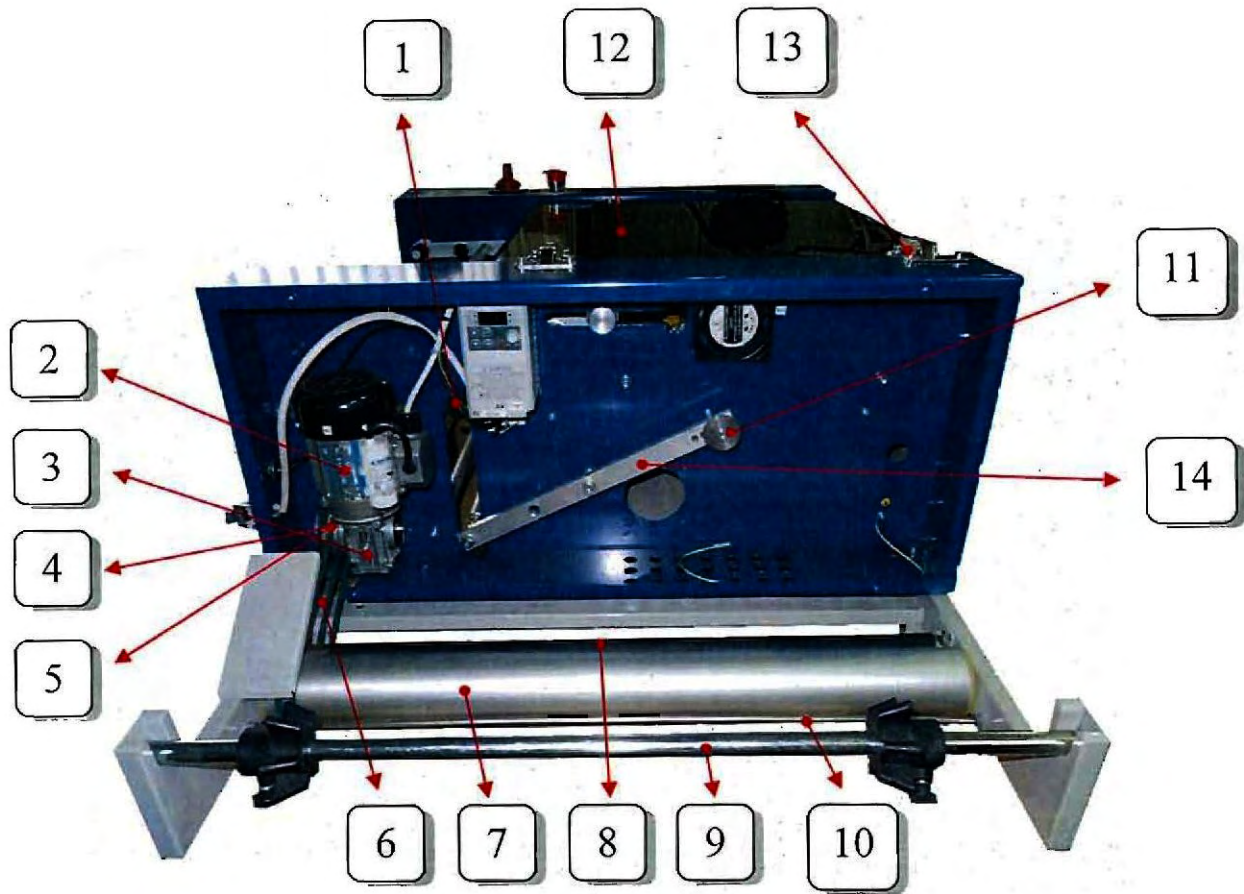
Picture 14.2.

1.	Sealing bar, longitudinal and cross bar, set	45016
2.	Longitudinal sealing bar	45017
3.	Linear bearing	45018
4.	Spring	45019
5.	Longitudinal sealing bar axis	45020
6.	Tensioner	45021
7.	Sealing wire	45022
8.	Silicone rubber	45023
9.	Self – adhesive Teflon tape, width 50mm	45024
10.	Self – adhesive Teflon tape, width 10mm	45025
11.	Double – sided self – adhesive Teflon tape, width 50mm	45026
12.	Protection shield	45027
13.	Guides, top and bottom guide	45028
14.	Set of springs (left and right spring)	45029
15.	Limiting screw	45030
16.	Linear guide	45031



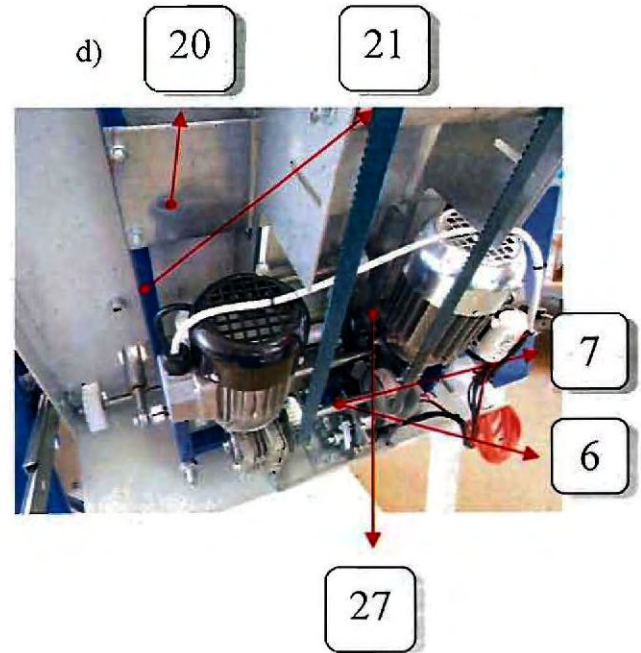
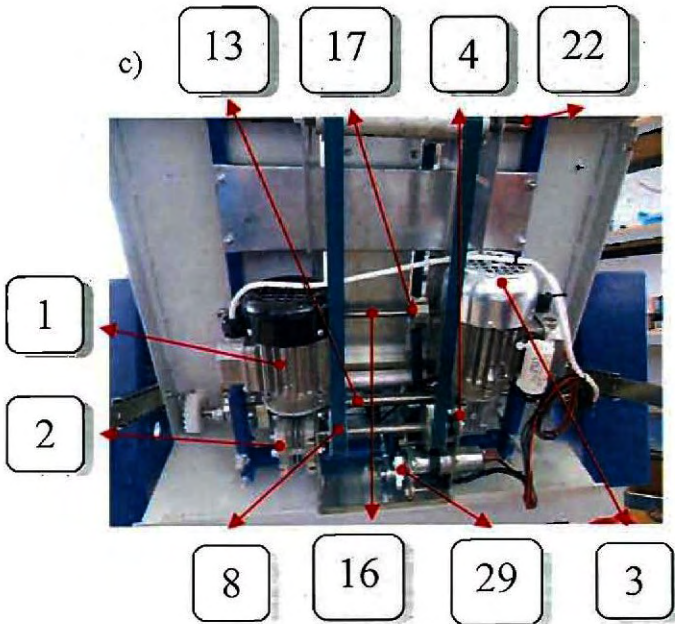
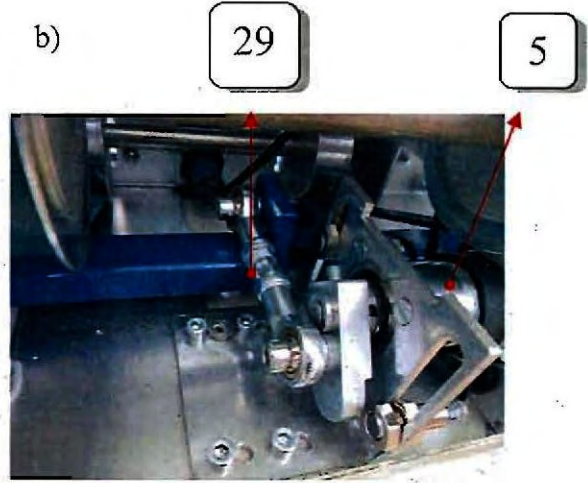
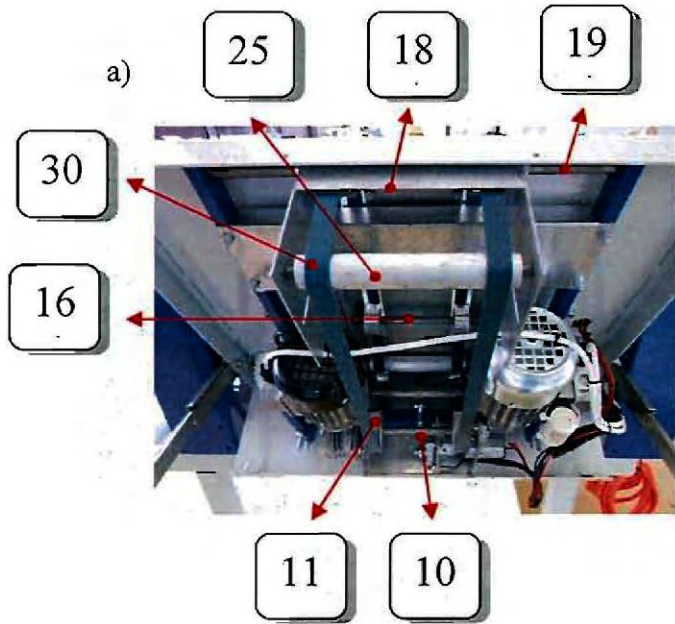
Picture 14.3.

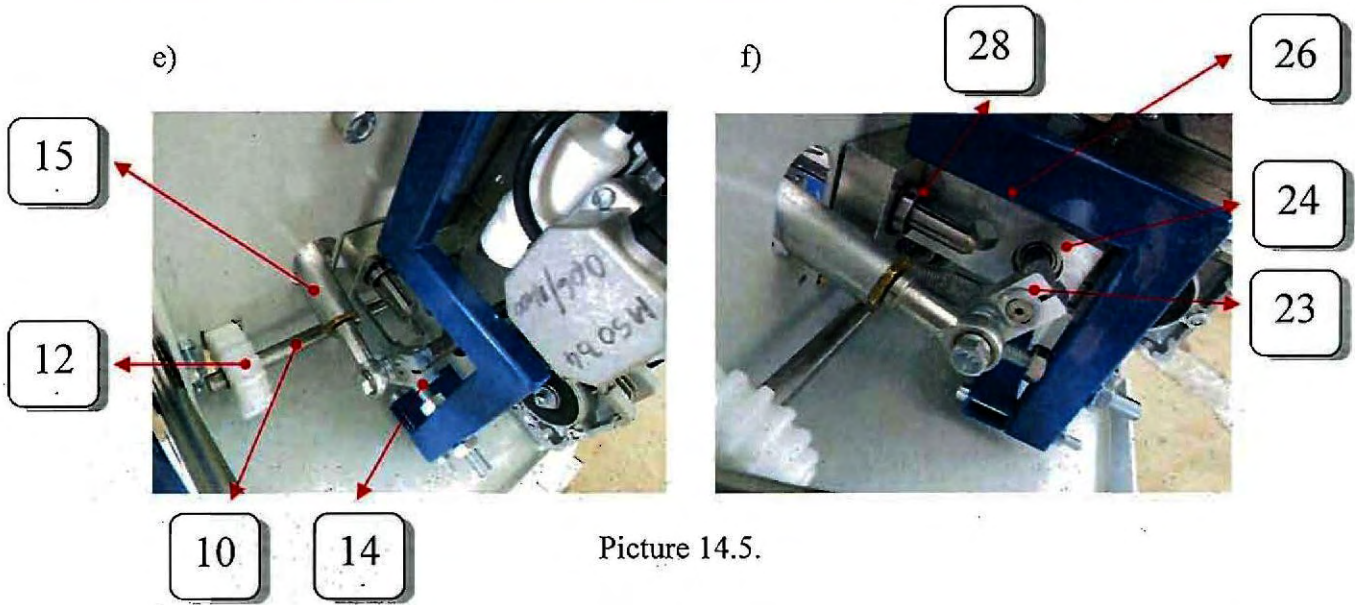
1.	Roller	45032
2.	Pusher wheel	45033
3.	Pusher roller	45034
4.	M12 handle	45035
5.	Pusher roller holding handle	45036
6.	Threaded knob	45037
7.	Slider	45038
8.	Toothed belt	45039
9.	Toothed belt pulley – toothed wheel assembly	45040
10.	Bearing	45041
11.	Pusher housing	45042
12.	Pusher tensioner assembly	45043
13.	Film forming sleeve	45044
14.	Knob	45045
15.	Photocell reflector	45046
16.	Pressing wheel axle	45047
17.	Pressing wheel	45048
18.	Knuckle joint, side panel, left + right	45049
19.	Knuckle joint, bottom part, left + right	45050
20.	Pressing wheel threaded rod	45051
21.	Spring	45052



Picture 14.4.

1.	Shock-absorber	45053
2.	Film drive motor	45054
3.	Film drive gear-box	45055
4.	Belt pulley	45056
5.	Axle	45057
6.	Drive belt	45058
7.	Drive roller assembly	45059
8.	Pressing roller assembly	45060
9.	Rod	45061
10.	Film reel holder	45062
11.	Weight	45063
12.	Lid	45064
13.	Lid hinge	45065
14.	Swinging handle	45066

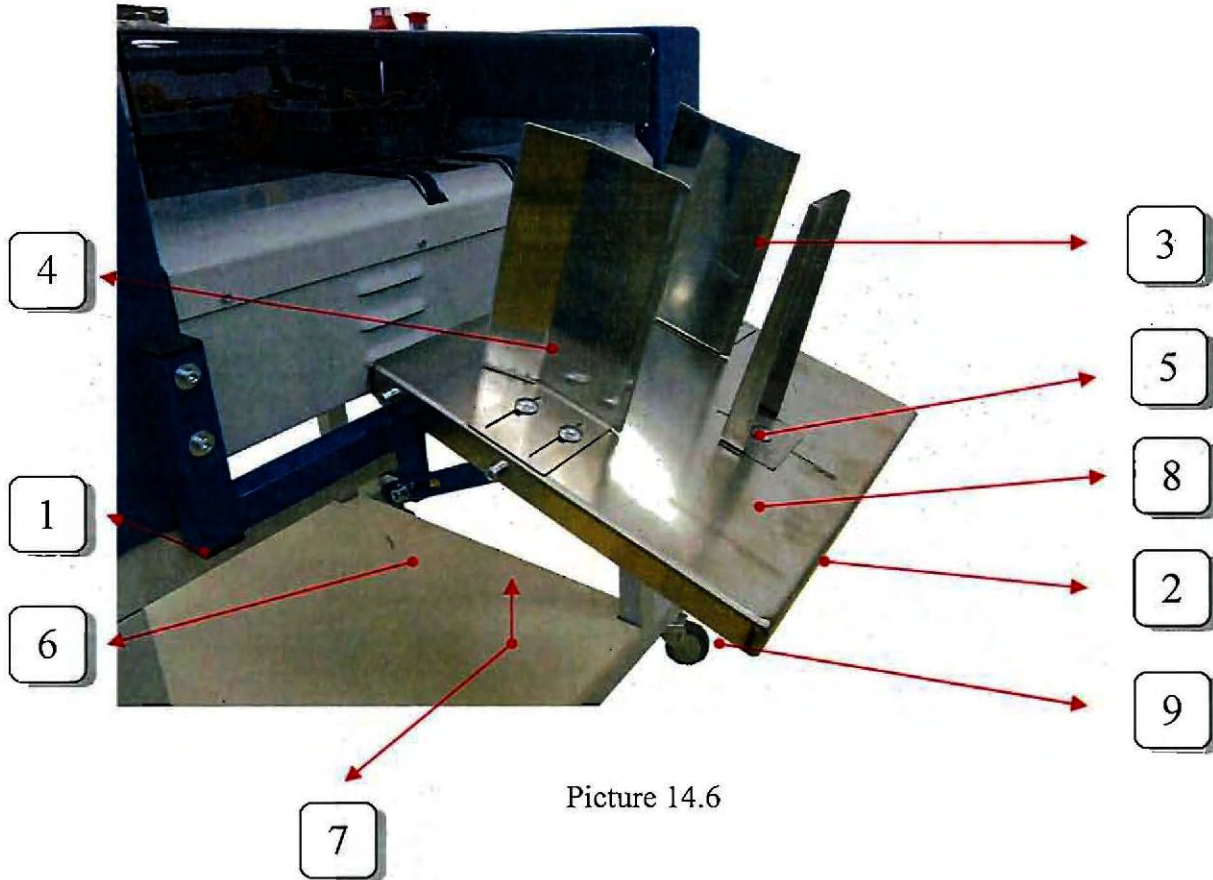




Picture 14.5.

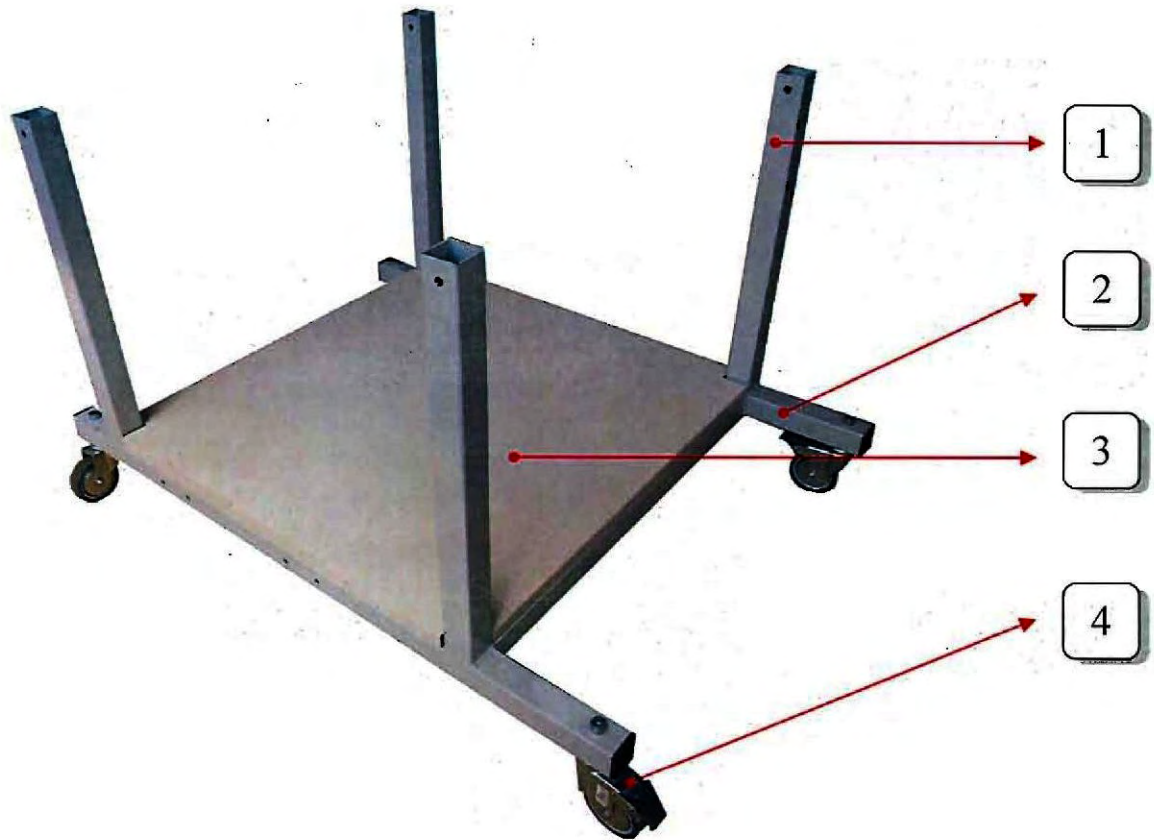
1.	Conveyor motor	45068
2.	Conveyor gear-box	45069
3.	Sealing bar motor	45070
4.	Sealing bar gear-box	45071
5.	Geared motor of pressing wheels	45072
6.	Drive axel	45073
7.	Dowel	45074
8.	Drive toothed wheel	45075
9.	First axle	45076
10.	First wheel of conveyor	45077
11.	First axle cogwheel	45078
12.	Axle of sealing bar drive	45079
13.	Handle of sealing bar drive	45080
14.	Spring arm of sealing bar	45081
15.	Middle axle	45082
16.	Wheel	45083
17.	Spacer	45084
18.	Rear axle	45085
19.	Fixing spacer	45086
20.	Arm	45087
21.	Slide bearing	45088
22.	Pressing wheels cam	45089
23.	Bearing	45090
24.	Tensioning roller	45091
25.	Bearing support 10	45092
26.	Bearing support 12	45093
27.	Linear bearing	45094
28.	Pressing wheels handle	45095
29.	Toothed belt	45096

(pict. 14.5. a,b,c,d,e,f)



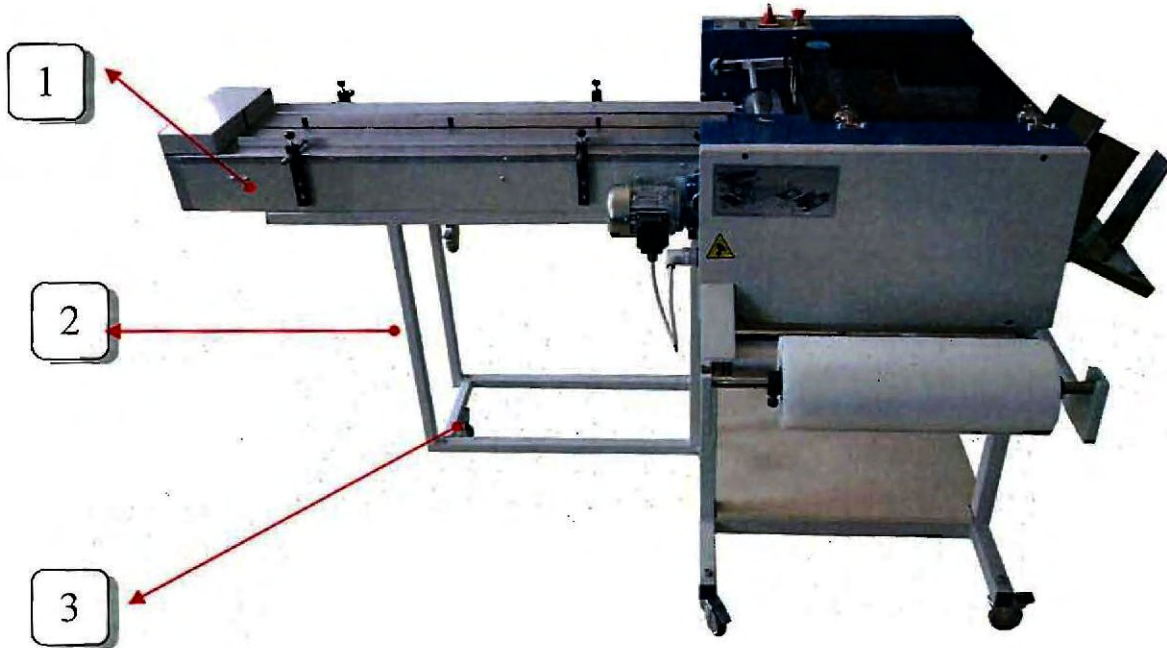
Picture 14.6

1.	Exit stacker frame	45097
2.	Plate	45098
3.	Limit stop, right	45099
4.	Limit stop, left	45100
5.	Rear limit stop	45101
6.	Handle	45102
7.	Knob	45103
8.	Screw	45104
9.	Exit stacker assembly	45105



Picture 14.7.

1.	Trolley assembly	45106
2.	Casing	45107
3.	Plate	45108
4.	Wheel	45109



Picture 14.8.

1.	Conveyor	45110
2.	Framework	45111
3.	Wheel	45112



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15. LIST OF SPARE PARTS FOR ELECTRICAL CONTROLS

16. DRAWING OF ELECTRICAL CONTROLS

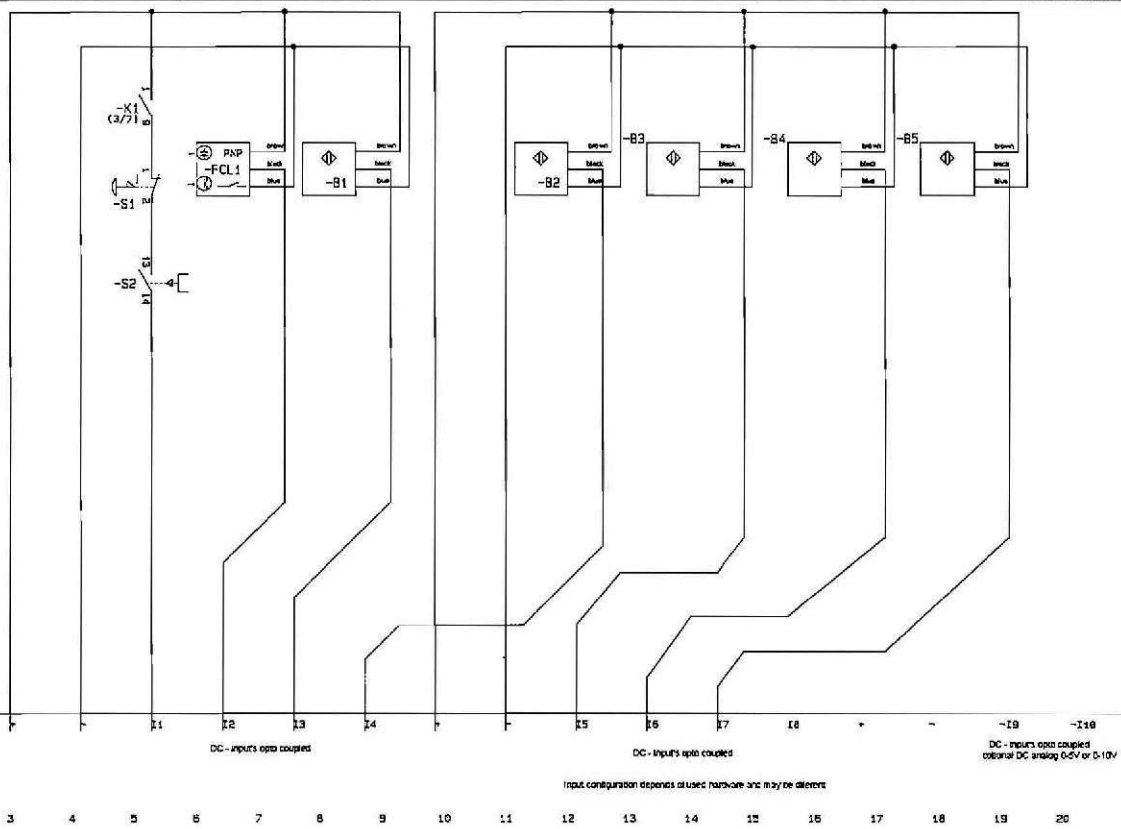
Eletctric circuit diagram
Part list

protection & product detection

K1 - control relay
 S1 - emergency STOP
 S2 - over protection switch
 FCL - sensor (product detection)

Inductive proximity switches:

B1 - non used
 B2 - pushing roll - sensor
 B3 - rotating roll - sensor
 B4 - scaling jaw - upper
 B5 - scaling jaw - lower



DC - inputs opto coupled
 external DC analog 0-5V or 0-10V

Input configuration depends of used hardware and may be different

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 Rev.: rev1
 Rev:
 Page: 2 of 3

