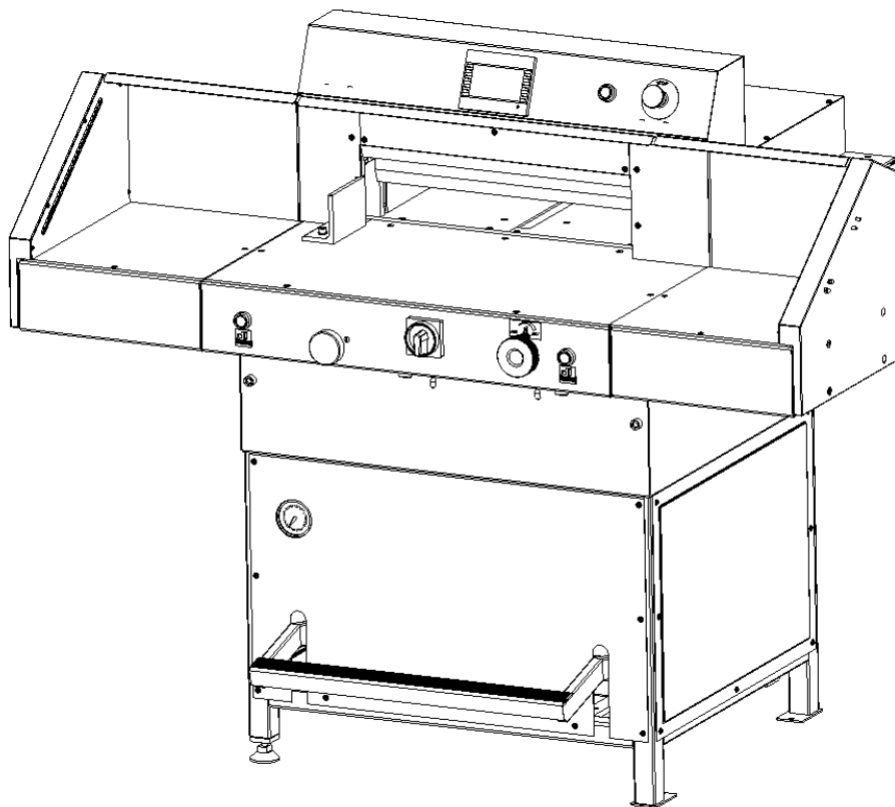




5280 EPSHP

Single Knife Paper Cutter Operation Manual



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IDENTIFICATION

Machine type: Single knife paper cutter

Item: INT-GU-05280EPSHP

EC-Conformity Declaration

Konformitätserklärung Certificate of Conformity Attestation de Conformité Certificado de Conformidad



Bezeichnung der Maschine:	Papierschneider
Type of machine:	Guillotine
Description de la machine:	Guillotine
Descripción de la máquina:	Guillotina
Modell / Model / Modèle / Modelo	intimus 5280 EPSH Powercut
Artikel-Nr. / item number / numéro d'article / número de la pieza:	INT-GU-05280EPSHP
Baujahr / year of manufacture / année de production / año de producción:	siehe Typenschild / see name plate / voir plaque d'identification / mirar la placa de identificación

Hiermit wird bestätigt, dass vorgenanntes Produkt den Anforderungen **Maschinen-Richtlinie 2006/42/EG**, der **Niederspannungs-Richtlinie 2014/35/EG** sowie der **EMV-Richtlinie 2014/30/EG** einschließlich allen bis heute veröffentlichten Änderungen bzw. Nachträgen entspricht. Das vorgenannte Produkt entspricht folgenden harmonisierten bzw. nationalen Normen:

We do hereby certify that the above mentioned product meets the requirements set forth in **EEC-Guidelines 2006/42**, in **EEC-Low-Voltage-Directive 2014/35** and **EMC 2014/30/EEC** including all changes and addendums to date thereto. The above mentioned product meets the following harmonized and national standards:

Nous vous confirmons que le produit cité ci-dessus correspond aux **exigences des directives 2006/42/CEE**, aux directives de basse tension **2014/35/CEE** ainsi qu'à la directive **CEM 2014/30/CEE**, ci-inclus toutes les modifications ainsi que tous les suppléments publiés jusqu'à ce jour. Le produit mentionné correspond aux normes citées ci-après:

Confirmamos que los productos arriba citados cumplen las exigencias de las **directivas 2006/42/CEE** y de las directivas de baja tensión **2014/35/CEE** y **CEM 2014/30/CEE**, incluidas todas las modificaciones publicadas hasta la fecha. Los productos citados corresponden con las siguientes normas:

Harmonisierte Normen / harmonized standards normes harmonisées / normas armonizadas

EN 1010-1	EN 61496-1
EN 1010-3	EN 61496-3
EN IEC 60204-1	EN ISO 12100-1
EN 55014-1	EN ISO 12100-2
EN 55014-2	

CE-Bevollmächtigter / authorized person of CE / personne autorisée de la CE / persona autorizada por CE:
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2021/04



Ulrich Niedermeier
CTO
(Chief Technical Officer)

1. GENERAL INFORMATION

- This operator manual introduces the machine for the user and shows what for the machine was designed for to enable safe and comfortable work on the machine
- Inside the manual there are listed special safety requirements necessary to use the product
- The manual should be stored near the machine and secured from lost or damage
- The operator should read the manual before using the machine with special focus on chapter "Safety rules"
- The manual should be accessible by operator at any time and read carefully by all the machine operators

It refers to:

I. Operation and first installation

II. Troubleshooting of workflow

III. Maintenance (service, repairs) and transportation

- In addition to the manual operator should keep general safety norms and local, national health and safety requirements. The employer is also obliged to train the staff properly to operate the machine in harmony to the manual.

1.1 Identification

The Single knife paper cutter is marked with nameplate sticker located on the right side of the guillotine 1 (figure. 1)

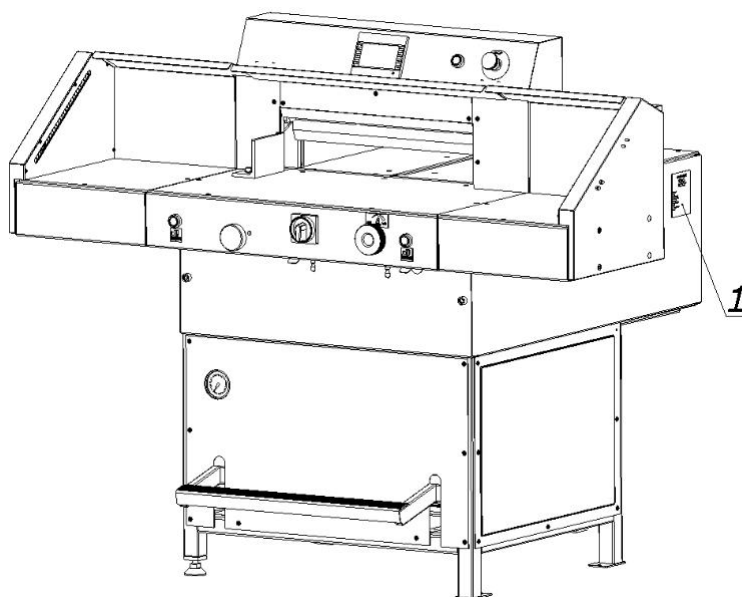


Figure 1

After the machine purchase it is suggested to check the serial numbers of machine nameplate with purchase documents.

1.2 Purpose of use

This Single knife cutter is designed for cutting to requested dimension reams of paper, cardboard and other materials like pvc, plastics, fiber, foils, lamination and rubber etc. It is mainly used by printing houses, print finishing specialists, copy shops and offices. In case of some materials (like ex. plastics) it is recommended to use smaller ream than maximum designed (to be consulted with manufacturer). The machine must be used according to the rules given in operator manual and conditions as assemble, disassemble, reassemble, installation, controlling and maintenance should be respected.

Danger of damage in case of wrong usage!

- **operator is fully responsible for any damages caused by incorrect using of the machine!**
- **the machine is designed only for purposes given in this manual by the manufacturer!**

1.3 Documentation

- This instruction manual is part of the product.
- The operation manual is not the service manual.
- Only use original spare parts.
- The illustrations in the operating instructions may differ from the actual state of the machine
- The types of auxiliaries indicated in the operating instructions, such as oils, lubricants, etc. refer to the means available on the market at the time of the instruction.
- Always keep the complete technical documentation close to the machine.
- We recommend that you carefully read this user manual before using the cutter.

1.4 Introduction

The manual contains special information about the machine's safety devices. Keep the operating instructions close to the workplace and secure them against loss or damage. In addition to the instructions, you must also follow the generally accepted standards and applicable national regulations for occupational safety and accident prevention. The employer is also obliged to adequately train service staff in accordance with the instructions. Each operator must confirm the receipt of the operating instructions and undertake in writing to comply with them. This requirement is necessary for the operator to start operating the machine.

2. SAFETY OF USE

The mechanical, electrical and electronic cutter assemblies were made according to state-of-the-art solutions and generally accepted technical rules that ensure safety in the event of a failure. Appropriate safeguards provide the operator with the highest level of security.

The use of accessories or accessories that have not been mounted, delivered or manufactured by the cutter manufacturer requires a special permission from the manufacturer. Otherwise, the warranty becomes void and the manufacturer is not responsible for any damage or injury.

This requirement also applies to spare parts used during the necessary repairs!

Repairs may only be carried out by employees who have been appropriately trained by the cutter's manufacturer. In the event of repairs carried out by unauthorized personnel, the warranty granted to the device expires and exempts the manufacturer from any liability for injuries or damage.

- **The machine warranty expires if the machine is modified by the user.**
- **Modification of the device by the user releases the supplier and the manufacturer from any liability**

Despite the measures taken, operating the machine by insufficiently trained staff or trained in the wrong way can pose a danger.

Every person involved in the assembly, commissioning, operation, maintenance and servicing of the machine must read the operating instructions, in particular the chapter "Safety of use".








Despite the obligation to read and understand the safety rules at the time of installation of the new slicer, knowledge of these rules should be repeated periodically!

Possible consequences of improper handling:

- **Danger to life**
- **Danger of injury**
- **Danger of damage to the machine**
- **Deterioration of the technical condition of the machine causing production stoppages**

2.1 Symbols: meaning and application


Table 1: Symbols meaning

	<ul style="list-style-type: none"> • Read operator manual • Respect operator manual • INFORMATION
	<ul style="list-style-type: none"> • WARNING! • Risk of machine damage • Risk of deterioration of technical condition of machine
	<ul style="list-style-type: none"> • CAUTION! DANGER! • Danger to life • Danger of body damage
	<ul style="list-style-type: none"> • Dangerous electrical voltage!
	<ul style="list-style-type: none"> • Children must not operate the device!
	<ul style="list-style-type: none"> • Do not put hands underneath the knife!
	<ul style="list-style-type: none"> • Do not leave knives unattended • Do not remove or transport knives without covers! • Risk of injury!
	<ul style="list-style-type: none"> • Do not cut hard materials or materials, which may be splattered

2.2 Employee qualifications

- The guillotine can only be operated by qualified employees who have been properly trained by the cutter manufacturer. With regard to safety rules, in the contents of this instruction, by a qualified employee should be understood as a person authorized to set machines, circuits and electrical circuits in accordance with the standards of security technology.
- The guillotine should only be operated by employees trained and authorized for this purpose by the employer. Such employees must be of legal age.
- An operator who does not use the language of the available version of the user manual in speaking or writing, should be fully instructed in verbal instructions and complete comprehensive and practical training to familiarize with the content of the document.

This requirement is especially important for chapter "Safety of use". The manufacturer recommends that the operator be given the translation of "Safety of use" in his mother language with confirmation of receipt of such a document.

	<p>Info</p> <p>Before operating the cutter the operator must read the operating instructions.</p>
---	---

- Every employee delegated to work during assembly, disassembly, reassembly, commissioning, servicing and maintenance (technical inspection, servicing, repairs) of the cutter must read the entire operating manual, in particular the chapter "Safety of use".
The manufacturer recommends that the buyer of the machine, transferring it for use, obtained a written confirmation of the contents of the instructions.
- Every employee authorized to perform assembly, start-up, operation and maintenance and repair of the cutter must read the entire operating manual, in particular the chapter "Safety rules".

2.3 Requirements for the operator's workplace.

The user is obliged to create working conditions at the cutter workplace that preclude the operator from slipping, slipping or falling due to poor ground conditions, the way of routing the wires or the lack of convenient access!

2.3.1 Personal protection equipment

If necessary or if it results from the regulations in force, use the following personal protective equipment:


- Wear safety shoes
- Wear safety goggles, e.g. when cutting fragile material
- Use hearing protection, e.g. when cutting hard material

2.3.2 Permissible environmental and operational conditions

- Operation of the machine is permitted in closed rooms
- Humidity: 35% - 95% (non-condensed)
- Ambient air temperature: + 5 °C - + 30 °C

2.4 Expected risks when operating the cutter

Using the single cutter as intended, you can predict some of the risks to your life and health. To avoid existing hazards, the rules of using and operating the cutter must be explained in detail. Special attention should be paid to the cutter units and situations posing a threat to the operator and third parties:

	<p>DANGER!</p> <p>The operator can operate the machine in good technical condition.</p>
---	---

At the beginning of each work shift and after each knife replacement, check the operation of the safety devices. Interference in security or bypassing them (eg safety light curtains, two-handed controls) creates a danger to life or injury!

At the moment, the cutter can only support one operator!

The operator himself must also make sure that the machine is not operated by unauthorized persons!

Table 2: List of threats occurring while operating the cutter

Lp.	Factor/notification	Type of threat
I	Mechanical hazards	
1	Motor, belt transmission of the mechanism of backgauge	Catching, crushing
2	The lever system of the knife drive mechanism	Catching, crushing
3	The lever system of the knife drive mechanism	Crushing
4	The approaching movement of the backgauge	Crushing
5	Cutting zone	Cut off, cut
6	Manipulation with a knife during change	Cut off, cut
7	The edges and corners of the cutter elements	Cut
8	Surfaces	Abrasion
II	Hydraulics hazards	
1	Hydraulic system	Danger of chemical burns, burns represent hot oil with a temperature of approx. 80 °C
III	Electrical hazards	
1	Direct touching	Electric shock

2.5 Description and evaluation of residual risk

intimus International GmbH takes responsibility for the construction of the guillotine in order to eliminate the danger, although some risk elements during the cutting machine operation are possible. Residual risk resulting from incorrect behavior of the cutter operator.

- Failure to follow the safety rules described in the operating instructions
- Using the machine for other purposes than those described in the user's manual
- Staying unauthorized persons, especially children, when cutting on the machine
- Unauthorized making any alterations
- Cleaning and lubrication of the cutter during operation
- Work with dismantled or defective covers
- Manipulation within the drive units and moving parts of the cutter during operation
- Checking the cutter's technical condition and performing servicing or repairs with the cutting machine
- Checking transmission gears during operation

When presenting the residual risk, the cutter is treated as a device that was designed and manufactured according to the state of the art in the year of its manufacture.

Residual risk assessment

When following such recommendations as:

- Comply with the safety rules described in the operating instructions
- Careful reading of the operating instructions
- It is forbidden to put your hands in dangerous and forbidden places
- It is forbidden to make any alterations on your own
- Prohibition of the machine in the presence of unauthorized persons, especially children
- No modification of the software of programmable control systems
- Maintenance and repair of the cutter only by suitably trained persons
- Operating the cutter by persons who have been previously trained and read the operating instructions
- Cutter protection against access of children residual threats can be eliminated.

2.6 Safety systems used in the cutter

- **Two-handed protective device** - the cut is released by the two-handed cut start system
- **Non-contact protection device** - an optoelectronic device that creates a safety curtain
- **Control system** - position control at the upper turning point of the knife and the pressure beam.

2.7 Ways to prevent threats

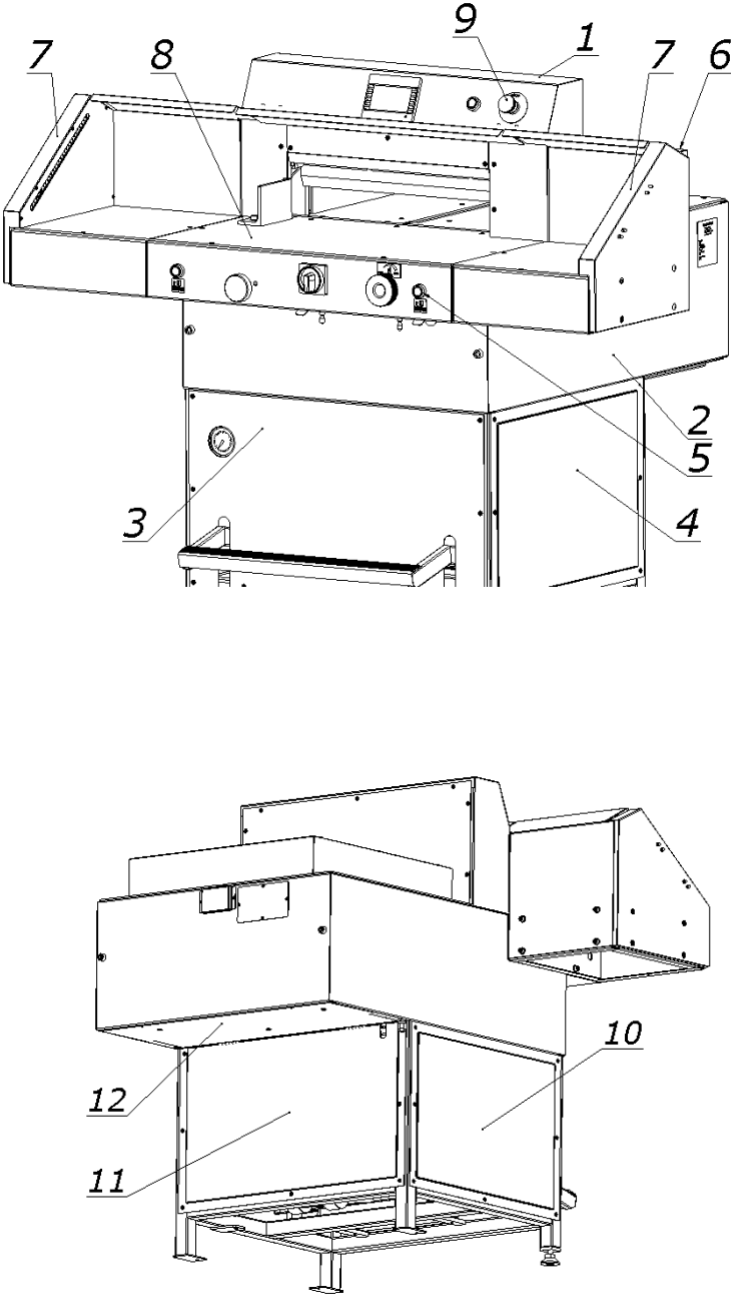


Figure 3 Arrangement of covers and protective elements

Table 3: Safety measures used to eliminate hazards (according to Figure 3)

	Factors and / or dangerous places	Security measures	Identification
I	MECHANICAL		
1.	The lever assembly mechanism of the pressure beam drive	Fixed cover Emergency stop	1, 2, 3, 4, 10, 11 9
2.	Hydraulic system	Fixed cover Front table Emergency stop	2, 3, 4, 10 11 8 9
3.	The belt drive for the drive mechanism of the backguage beam	Fixed cover Front table Emergency switch	2, 3, 4, 8 9
4.	The screw mechanism of the backguage drive	Cutter body Fixed cover	2 6
5.	Motor, lever mechanism of the knife drive mechanism	Fixed cover Front table Emergency stop	1, 2, 3, 4, 10 11 8 9
6.	Approach move of the knife beam	Fixed cover Electro sensitive Protective device (photocell) Two-handed device Emergency stop	1 7 5 9
7.	Approach move of clamp beam	Fixed cover Electro sensitive Protective device (photocell) Two-handed device Emergency stop	
8.	Approach move of backguage	Fixed cover Emergency stop	1, 6, 9
9.	Manipulation with a knife during its replacement	Transport handles Special protective packaging	
10.	Sharp edges and corners of the cutter elements	Refraction, dullness, rounding	
11.	Uneven or rough surfaces	Precise workpiece machining Paint coatings	
II	ELECTRICAL		
1.	Direct contact of active elements	Closed housing Partially reduced voltage supply to the control system up to 24V AC/DC	2, 12
2.	Indirect touch	Protection against indirect contact according to PN-EN 60204-1. Continuity of the protective conductor	

2.8 Safe working rules

1. Training of the operator:

- aware of the potential hazards that may occur when operating the machine
- clearly defining activities which, under the conditions of a given plant, are or are not the responsibility of the cutter operator and are reserved for designated authorized persons, in particular as regards the removal of defects and repairs - including electrical installations.

2. Prohibition to use the machine if:

- the machine is used contrary to its intended use and/or the machine parameters specified in the operating instructions would be exceeded
- the cutter is visibly inefficient
- any covers of moving parts have been removed from the cutter

3. Order:


- Checking the correctness of the protection devices:
two-handed control (each time before starting work)
contactless protective device (each time before starting work)
- order to carry out maintenance and repairs with disconnected electrical power

The above-mentioned requirements should be the subject of training and the content of the station instructions!

2.9 Safety control

Periodic security check should be carried out in accordance with the law. These provisions concern:

- accident prevention
- guarantee of efficient work and precision of operation
- eliminating production stoppages.

	<p>Info</p> <p>At the latest after 5 years of use, at least control of the following functions should be carried out and the results <u>should be documented</u>.</p>
---	---

- operation of the control function
- check the correct position of the knife
- control of the power supply of the machine linear indicator
- operation of the safety curtain
- operation of the two-hand control function
- protection against continuous knife movement.

The above mentioned service should be ordered by the machine manufacturer's technical service.

3. TRANSPORT AND STORAGE

3.1 Packaging

3.1.1 Characteristics of the packaging

The transport packaging used is a disposable packaging.

The transport platform is made of wood and the outer packaging is made of cardboard.

Inside the box the cutter and accessories are packed in anti-corrosion covers made of plastic and oiled paper.

3.1.2 Removing the packaging

Used packaging should be removed in accordance with legal regulations applicable in the country of the user.

3.2 Transport

The box with the machine should be transported in accordance with the markings on it (fig.4).

When using a forklift (Fig. 5a), make sure that the fork length is suitable so that you can grasp the entire depth of the box.

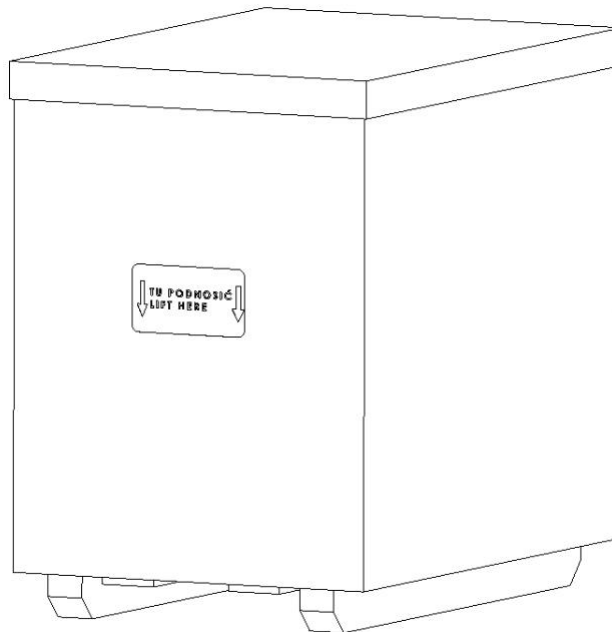


Figure 4 Cutter in a transport crate.



Figure 5a Transporting the cutter in the crate using a forklift.

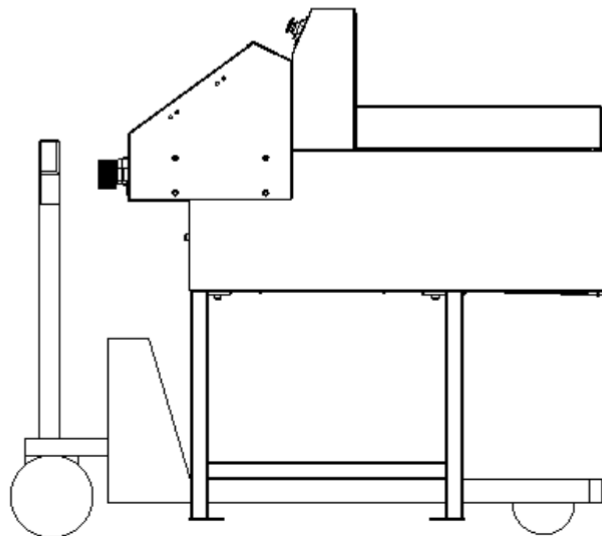


Figure 5b Transporting cutters with a pallet truck

3.3 Delivery status

The cutter can be supplied by the manufacturer:

- • completely assembled and ready for use (Fig. 6a)
- with disassembled side tables, assembly of tables according to Figure 6b
- with unfolded base and disassembled side tables, (non-standard equipment), assembly according to figures 6b and 6c

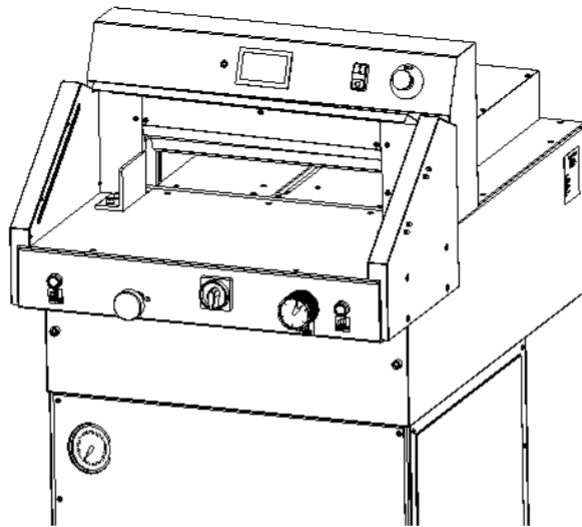


Figure 6a Cutter without side tables

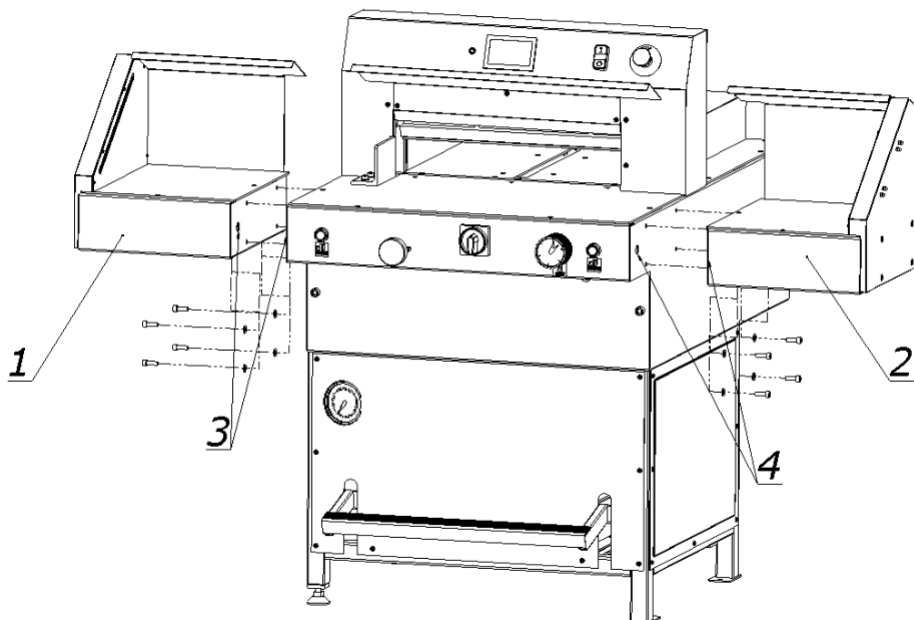


Figure 6b Tightening of the side tables

1. Left side table + M8x25 screw (4 pieces) + washer 8 (4 pieces)
2. Right side table + M8x25 screw (4 pcs.) + 8 washer (4 pcs.)
3. The place of guiding the curtain of the left table
4. The location of the right side curtain cable conduit

3.4 Setting the cutter

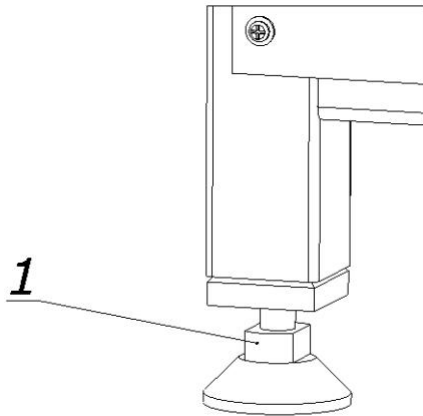


Figure 7 Adjusting the cutter setting.

The machine does not need to be attached to the ground. The correct and safe setting of the machine is achieved by twisting the adjusting foot 1, as shown in Figure 7.

3.5 Work area

In order to easily access the cutter's mechanisms during adjustment, maintenance or servicing activities, it is recommended to keep a free space of about 0.5 m around the device. (Fig.8)

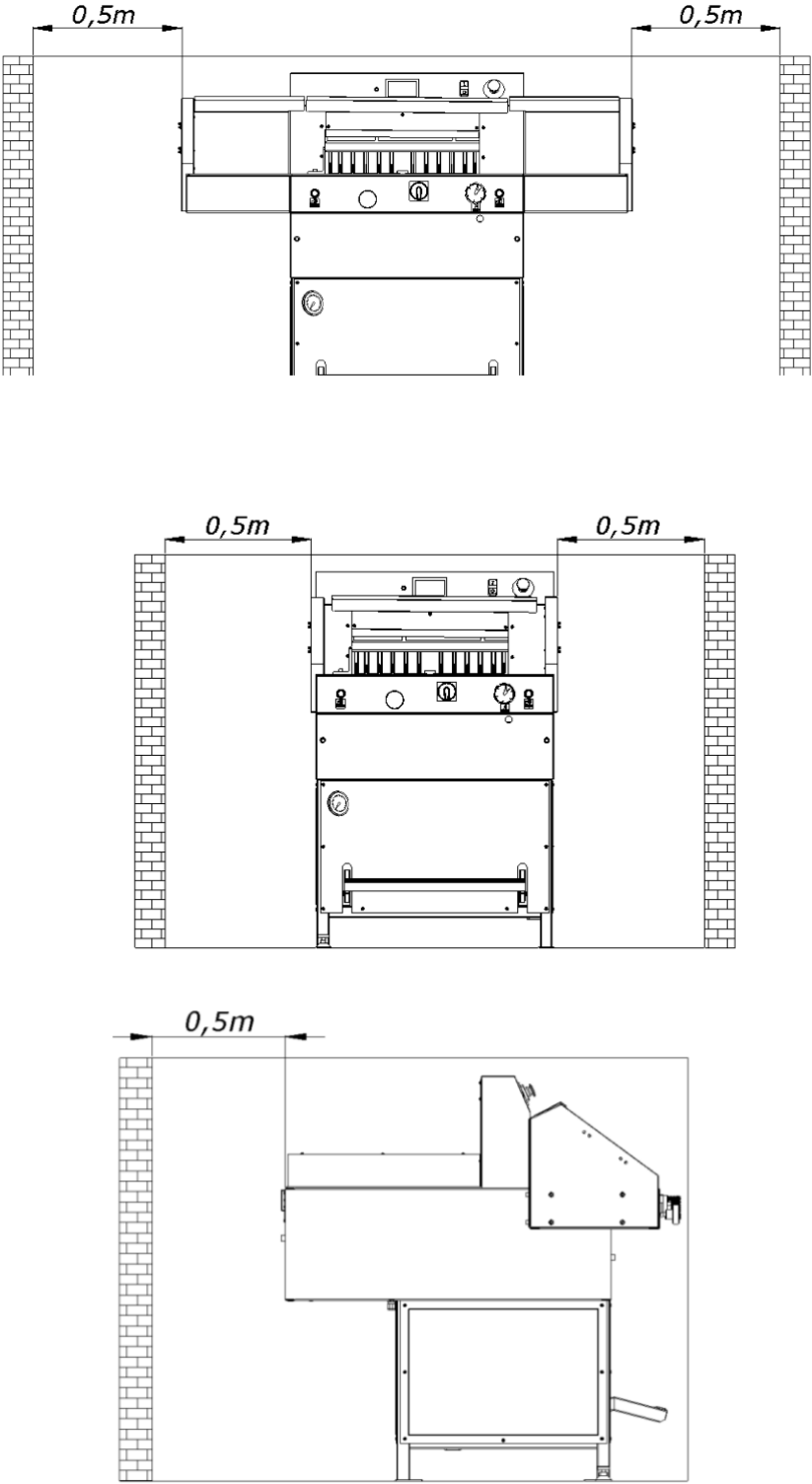


Figure. 8

4. TECHNICAL CHARACTERISTICS OF THE GUILLOTINE

4.1 Destination

The cutter is intended for trimming the required size of a stack of paper, cardboard and other materials: plastics, fibers, metal foil, laminate, rubber, etc. It is mainly used in printing houses, bookbinding shops and offices.

4.2 Basic parameters

4.2.1 Technical data

Table 4:

PARAMETER		5280 EPH
Maximum stack width (mm)		520
Maximum stack height (mm)	Without false clamp	80
	With false clamp	76
Cutting depth (mm)		520
Front table length (mm)		466
Narrow cut (mm)	Without false clamp	22
	With false clamps	40
Sound power level (dB)		74,6
Backguage speed (mm/s)		58
Side table load (kg)		15
Weight (kg)	Without side table	350
	With side tables	387
Static load substrates (daN / m ²)	Without side table	343
	With side tables	310

4.2.2 Technical data - electrical system

Table 5:

Parameter	5280 EPSHP
Maximum power (kW)	2
Voltage / frequency (V/Hz)	230/50
Fuse (A)	20
Motor power of backguage drive (kW)	0,18

4.2.3 Technical data - hydraulic system

4.2.3.1 Technical data - hydraulic power supply

Table 6:

Parameter	5280 EPSHP
Motor (kW)	1,5
Voltage / frequency (V/Hz)	3x400/50
	1x230/50
Control of executive elements (VDC)	24
Tank capacity (l)	10,5

4.2.3.2 Technical data – hydraulic oil

Table 7:

Parameter	5280 EPSHP
Oil type	HV 46
Quality norm	ISO 11158 - HV
Viscosity	ISO VG 46
DIN norm	51524, 46 mm² (cST).
Kinematic viscosity temp. (40°C)	47,2 mm²

4.2.4 External dimensions

The dimensions of cutters in different equipment versions are shown in figure 9a, 9b and table 8.

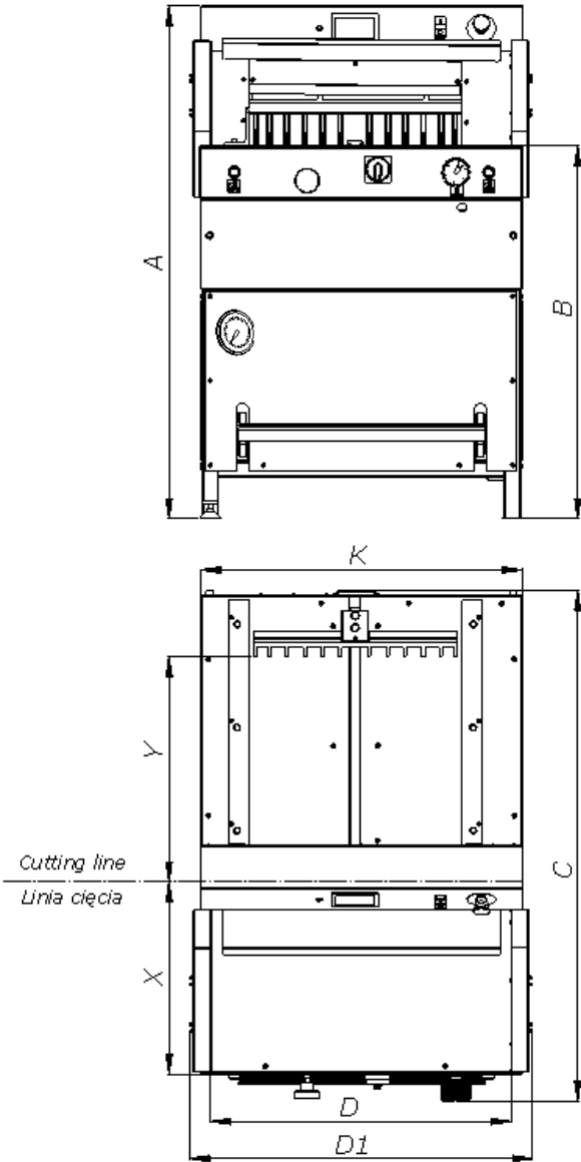


Figure 9a External dimensions of the cutter without side tables.

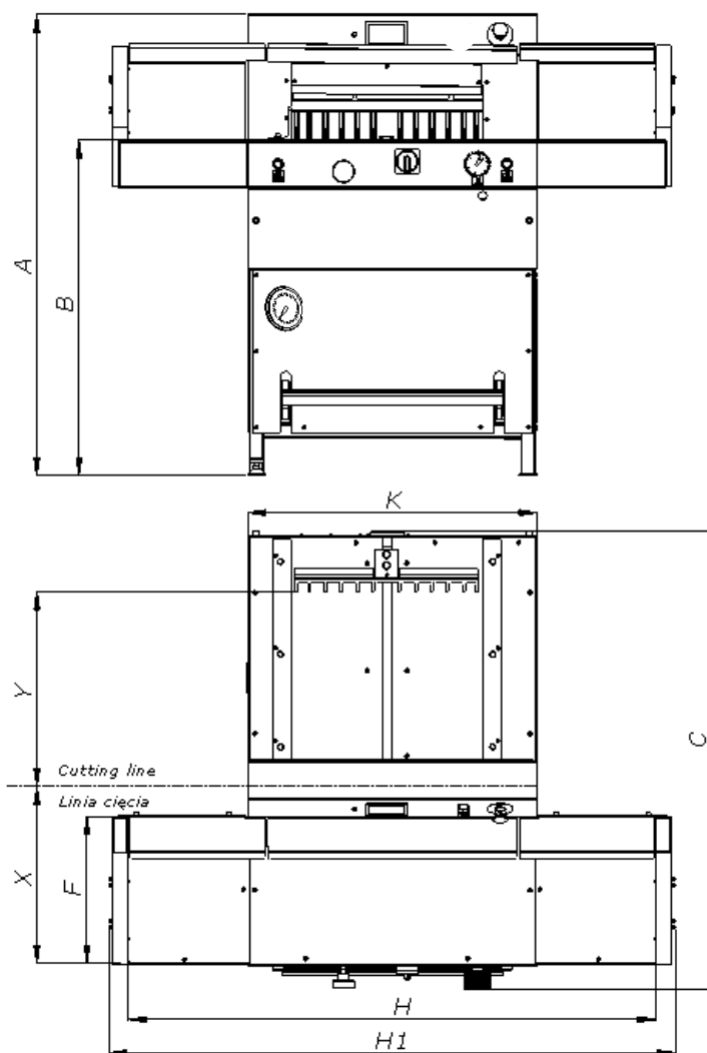


Figure 9b External dimensions of the cutter with side tables

Table 8:

Dimension	Value (mm)
A	1244
B	904
C	1230
D	730
D1	833
F	400
H	1430
H1	1533
K	785
X	466
Y	520

5. OPERATION

5.1 Operating safety

5.1.1 Safety instructions

- Before each start-up or start-up on the cutter, the next change should be made to ensure that the safety components are complete and work properly.
- The cutter can only be operated if all safety components and safeguards such as detachable covers, emergency stop switches are installed and fully functional.
- In the event of a malfunction, stop the cutter immediately and block it.
- All defects must be eliminated immediately.


5.1.2 Warning about special hazards

You should refrain from performing any actions that infringe safety in the machine.

In particular, it is prohibited to:

- Putting your hands into the field of knife and pressure.
- Putting hands in the field between the clamping and infeed bars.
- Exercise extreme caution when handling the knife! Use transport handles when installing / removing / carrying the knife.
- Use only undamaged and sharp knives!
- The knife can only be changed by trained personnel.
- When cutting on the work table, there must be no objects (such as keys, screwdrivers)

5.2 Control system

	<p>DANGER! The machine cannot be operated with defective photocells forming the safety curtain!</p>
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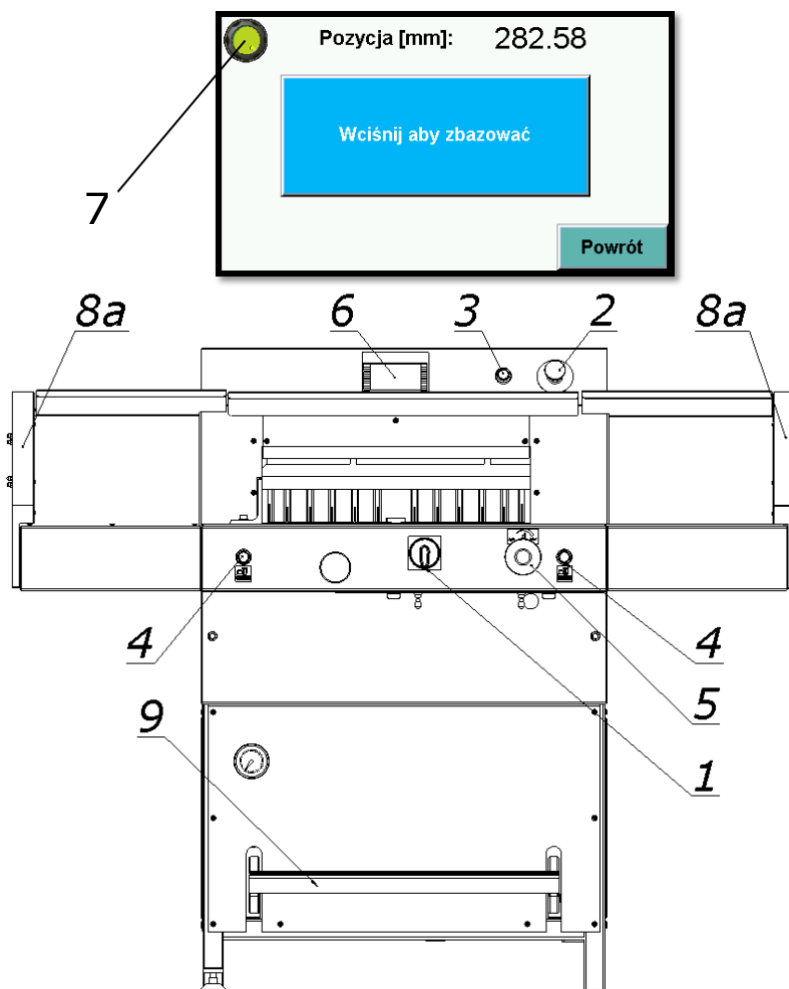


Figure 10 Elements of 5280 EPSHP cutting machine operation and signaling

1. Main switch
2. Palm button, (emergency stop)
3. Button that activates the control system.
4. Buttons enabling the cutting cycle (two-hand cutting system)
5. A knob that changes the clamping force
 - turning to the right - increasing the pressure
 - turning to the left - reducing the clamping force
6. Program unit
7. Two-color signal lamp, displayed on the programmer screen:
 - red, signals the power supply to the control system
 - green, signals the activation of the control system
8. Safety curtain (non-contact protection device)
 - 8a Transmitter
 - 8b Receiver
9. Foot clamp pedal (mechanical determination of the cutting line).

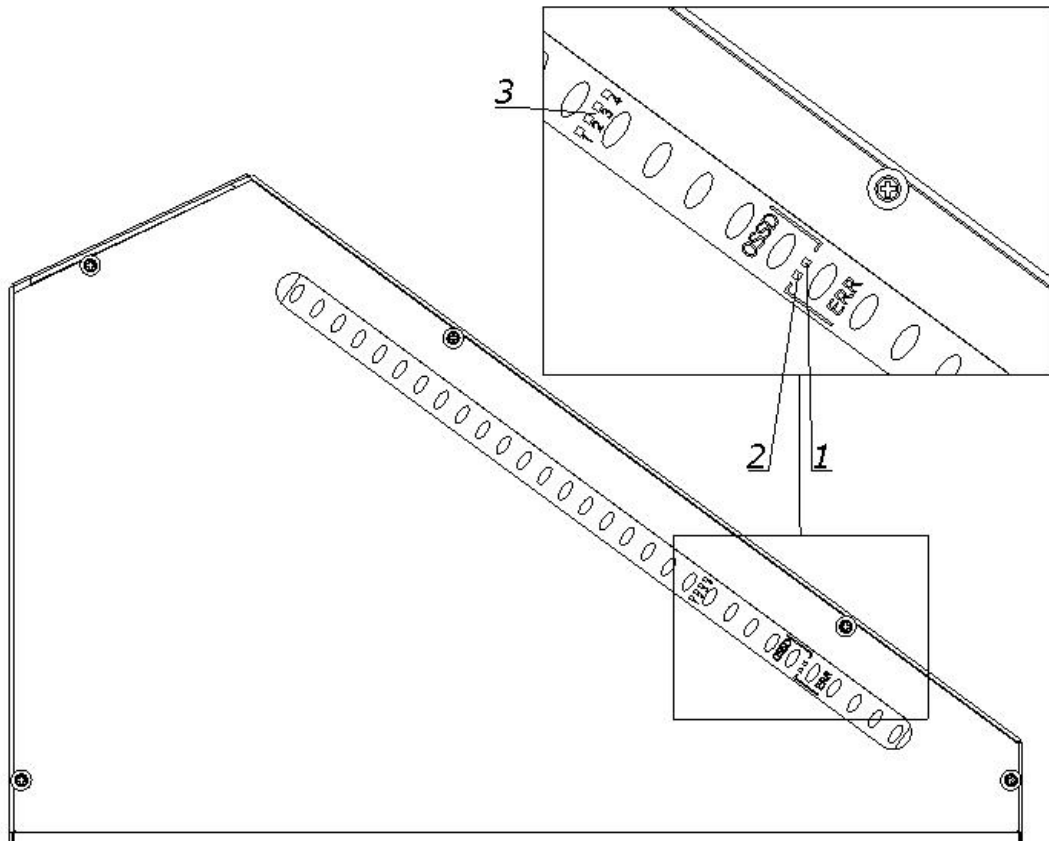


Figure 11 Receiver indicators

The receiver is equipped with six LEDs informing about the operating status:

Table 9:

Item	Color of the LED	Display	Text
1	Red/green	Status OSSD	OSSD
2	Red	Error indication	ERR
3	Blue	Quality of setting	1234

Blue LEDs inform about the quality of the settings, in conjunction with the flashing red color LED ERR, also indicate errors.

Table 10. Blue LEDs informing about the quality of the settings

LEDs informing about quality setting	Diode LED OSSD	Meaning
It does not light up no LED	red	The setting is insufficient or the protective field is interrupted at least partially. The receiver can not synchronize with the transmitter.
It lights up 1 LED	red	The setting is insufficient or the protective field is interrupted at least partially.
It lights up 2 LEDs	red	The setting is insufficient or the protective field is interrupted at least partially.
It lights up 2 LEDs	green	The setting is not yet sufficient to ensure stable availability
It lights up 3 LEDs	green	The setting is good, stable availability
It lights up 4 LEDs	green	The setting is very good

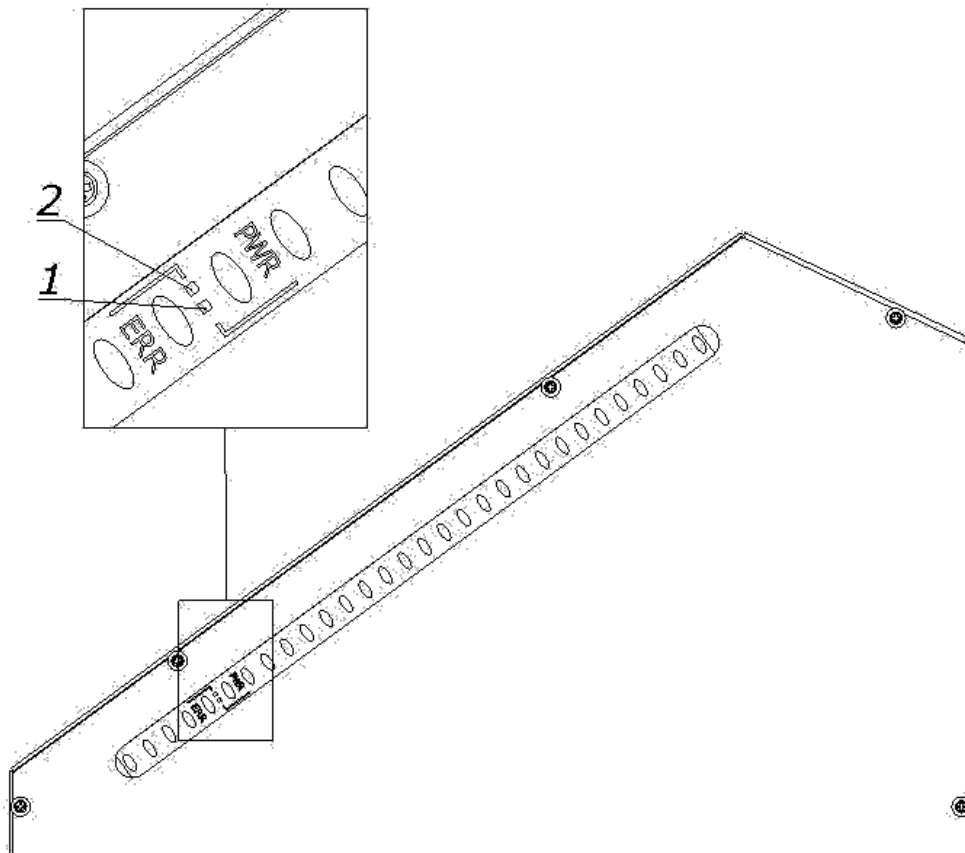




Figure 12 Transmitter Indicators+

The transmitter is equipped with two LEDs informing about the operating status:

Table 11:

Position	LED diode colour	Indication	Text
1	yellow	Work status indicator	PWR
2	red	Error indication	ERR

5.3 Electrical apparatus

	<p>DANGER!</p>
	<p>Dangerous electrical voltage! Before opening the housing, switch off the main switch!</p>

1. Hinged housing of electrical apparatus (Fig. 13)
2. Nuts fixing the housing (Fig. 13)

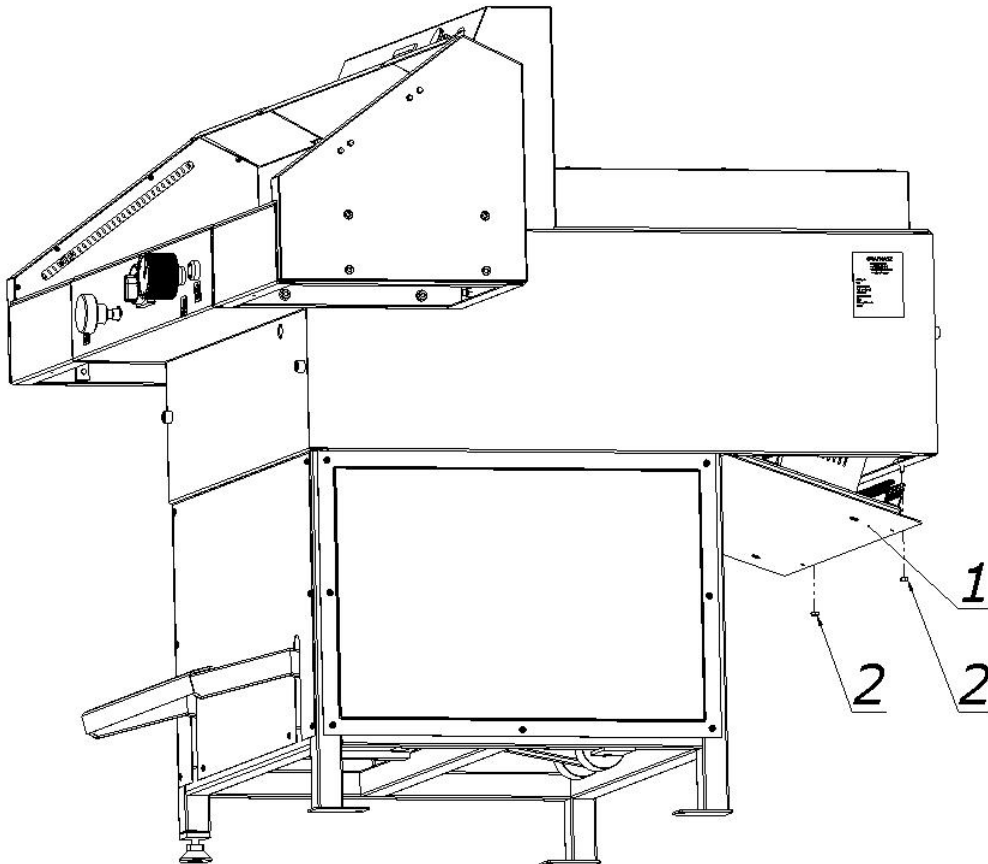


Figure 13 Location of electrical apparatus

6. POWER SUPPLY

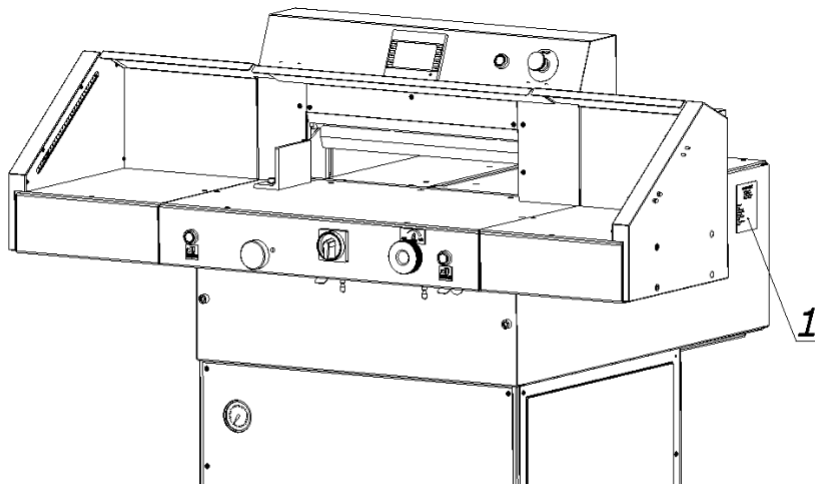



Figure 14 Location of the nameplate

Data on the plate:

- 230V power supply
- 50 Hz frequency
- 2 kW power
- 20 A protection

	<p>WARNING!</p> <p>The data on the plate must correspond to the current parameters in the mains!</p> <p>Parameters of frequency converters (inverters) are set by the cutter manufacturer and can not be changed!</p> <p>Cutter needs be grounded.</p>
---	--

7. USING THE CUTTER

The user is obliged to create working conditions at the cutter workplace that preclude the operator from slipping or falling due to poor ground conditions, cable routing the wires or lack of convenient access!

7.1 Work area for operational staff

The working area is the front side of the (operational) cutter!

7.2 Danger zones in the cutter

- knife and clamp zone
- back side of the cutter frame (access to clamp zone and knife)
- back side of the cutter (access to the backgauge)
- bottom side of the rear table access to the backgauge zone (spindle and slider)

7.3 Starting up the cutter

7.3.1 Commissioning

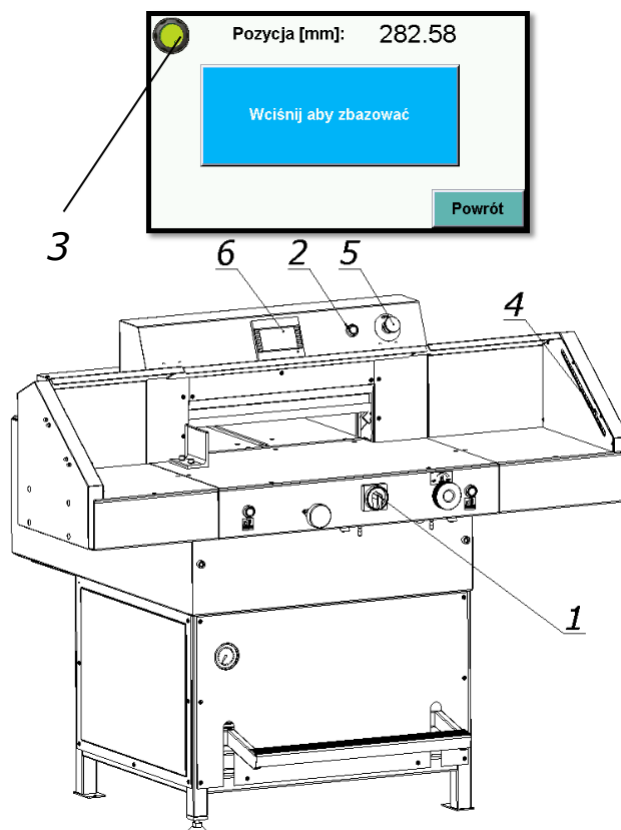


Figure 15 Arrangement of the elements used when switching the cutter.

Set the main switch 1 to "ON" 1 position (Fig. 15)

1. Press the green button 2 (Fig.15)
 - green LED 3 on the program unit 6 display lights up (fig.15)
 - the green OSSD 1 LED lights up (Fig.11) in the receiver 4 (Fig.15)

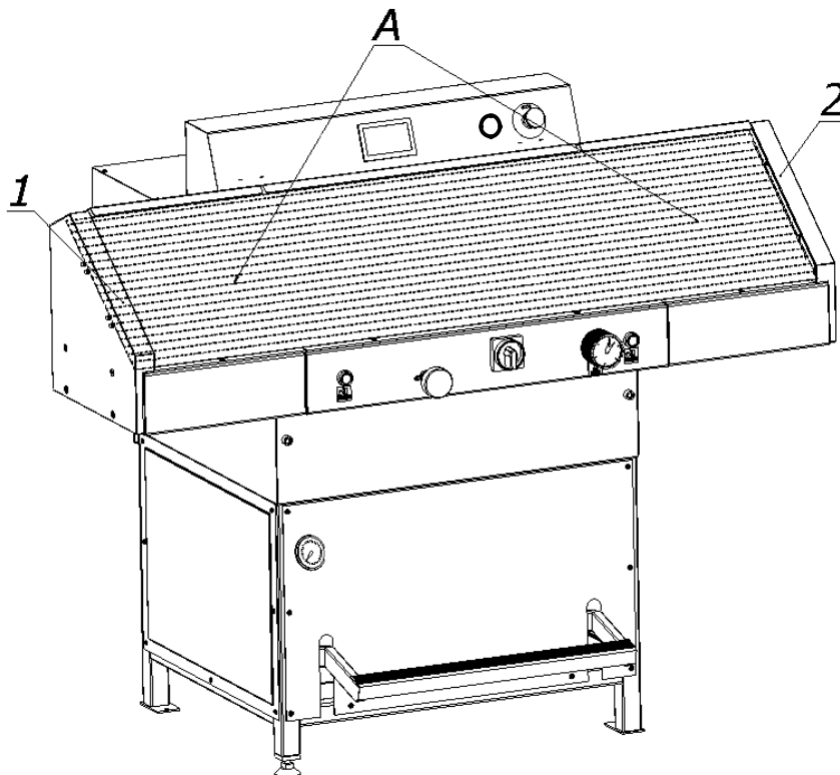


Figure 16 Safety curtain


1. Transmitter
 2. Receiver
- A - field of the security curtain

7.3.2 Diagnostics of the safety curtain after switching on the power supply.

When the cutter is switched on, the transmitter 1 and receiver 2 are initialized (fig. 16). All transmitter and receiver LEDs will light for a moment. After initialization the receiver indicates the quality of the setting using four blue LEDs 3 (Fig.11). (Table 9)

The setting indicator extinguishes after a suitable time when the safety light curtain is set (the LED of the device switching the output signal: green item 1 figure 11) and only the PWR LED of transmitter 1 (fig.12) and LED 1 (fig. 11) device for switching the receiver's output signal.

In case of an error on the device, the red LED will light. On the side receiver red error LED - in combination with blue LEDs - indicates the cause of the error.

	<p>DANGER! In case of malfunction of photocells, immediately contact the service!</p>
---	--

7.3.3 Emergency stop of the cutter

1. Press the button 5 (Fig.15)

The switch is used for emergency stopping of the machine.



After pressing it, the message "Disable safety button" will appear on the programmer. The pressure beam and knife will stop.

7.3.4 Starting the cutter after emergency stop


1. Unlock button 5 (turn it around) (Fig.15)
2. Press the green button 2

When the stop has been made during the cutting cycle, pressing the cutting buttons again will result in returning to the upper position of the clamping bar and the knife.

7.4 Determining the position of the approaching beam

	DANGER!
	Do not put your hands into the cutting area when backgauge moves!

Determining the position of the approaching beam is carried out using the programmer 1 and handwheel 2, figure 17.

	INFO
The method of determining the position of the beam as well as the operation of the programmer are described in the "Instruction for program unit".	

7.4.1 Changing the position of the beam with the handwheel

1. Press knob 2 (Fig. 17)
2. Turn the knob to bring the beam closer or closer by reading the position value on the programmer screen.

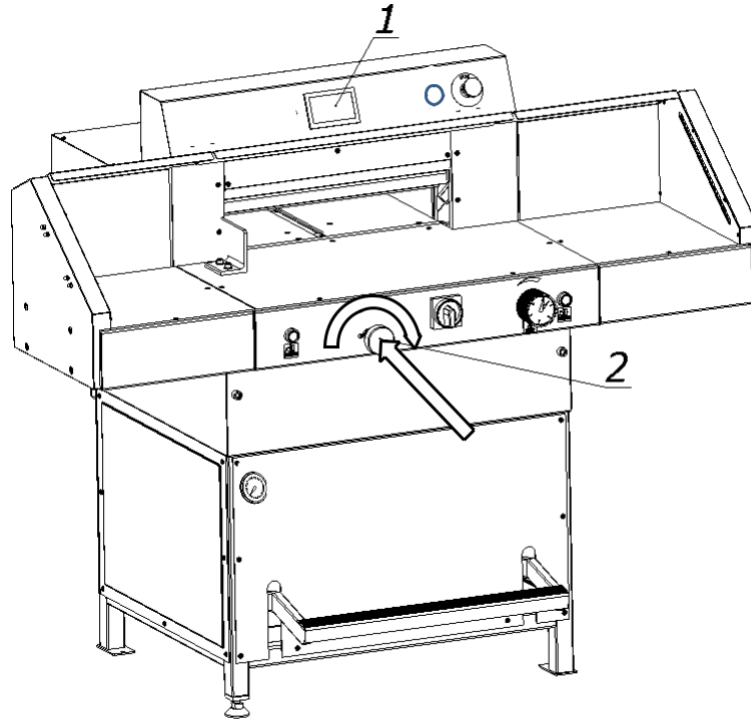




Figure 17 Arrangement of the positioning elements of the backgauge

7.5 Pressing the material

	DANGER!
	Do not put your hands into the cutting area when pressing!

7.5.1 Manual clamping of cut material (mechanical cutting line determination)

Lower the pressure beam onto the stack by pressing the pedal 2 (Fig.18). The front edge of the clamping bar is the same as the cutting line. Therefore, it can be used as an indicator of the cutting line. The clamp can be stopped in any position.

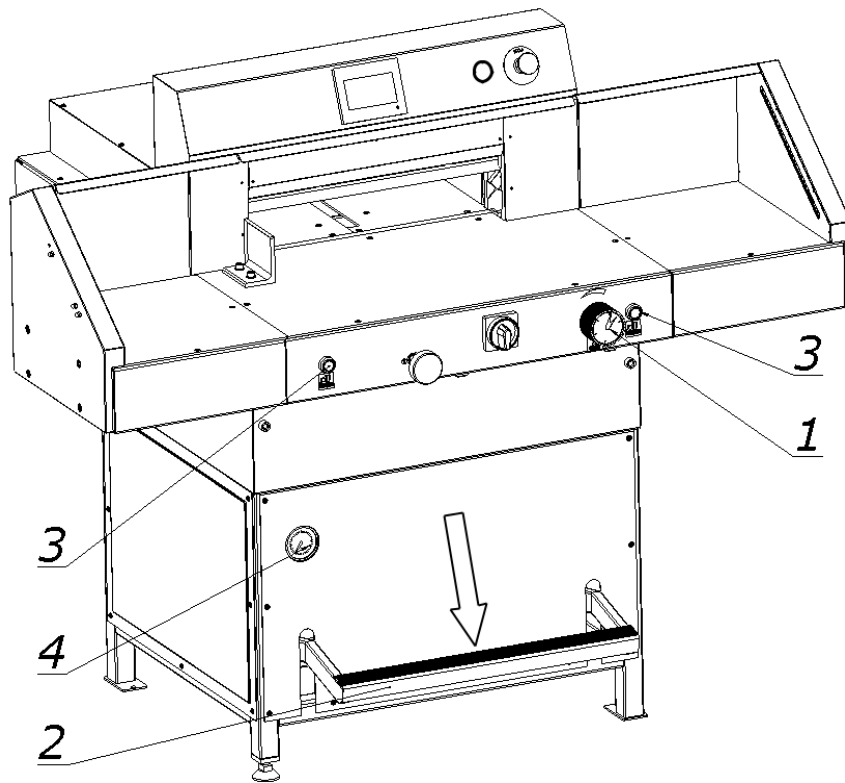


Figure 18 Operating elements when used during pressing.

7.5.2 Change of clamping force

Changes in the clamping force are made by the knob 1, reading the pressure value on the pressure gauge 4 (Fig.18)

- turning to the right - increasing the pressure
- turning to the left - reducing the clamping force

Approximate values of the clamping force depending on the pressure value read on the pressure gauge (manometer) 4

- 25 bar ~ 200 daN
- 40 bar ~ 400 daN
- 55 bar ~ 600 daN
- 70 bar ~ 800 daN
- 90 bar ~ 1000 daN
- 110 bar ~ 1200 daN

7.5.3 Rules for selecting the contact pressure.

The value of pressing force is selected experimentally, in relation to the type, width and height of the cut material.



The following rules must be observed:

- the higher the pile, the greater the downforce
- the greater the cutting width, the greater the downforce
- the harder the material, the greater the downforce

7.6 Cutting line indicator (optical)

The cutter is equipped with an optical cutting line indicator. A thin light line indicates the cutting line on the material to be cut.

7.7 Cutting (pressing and cutting)

	DANGER!
	Do not put hands into cutting zone!

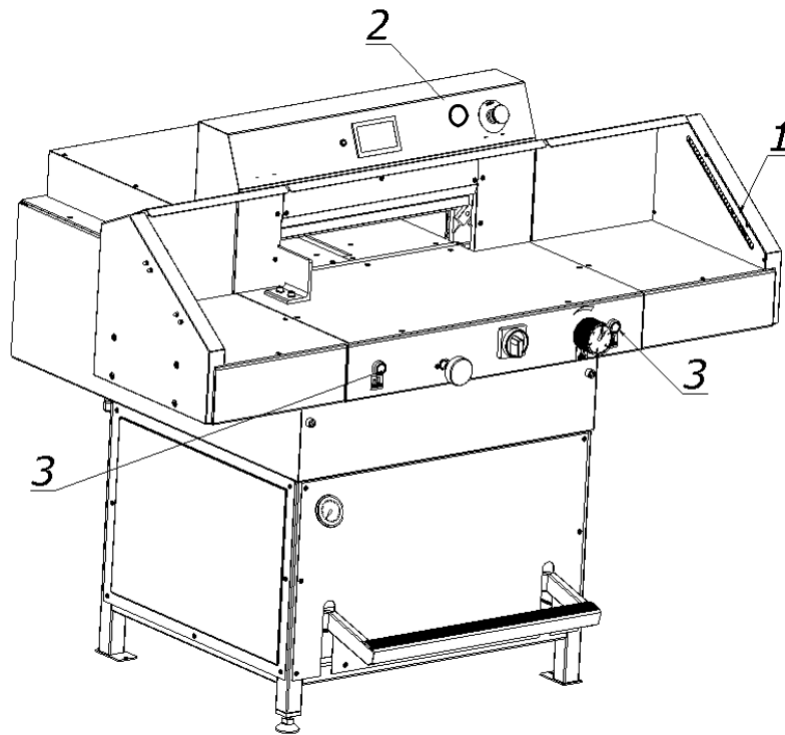


Fig. 19 Operating and signaling elements used during cutting.

Cutting can be done if:

1. there is no object in the work area of the light barrier - the green OSSD 1 LED lights up (Fig.11) on the receiver 1 (Fig.19).
2. the green push button switch 2 is pressed.
3. the two buttons 3 were pressed simultaneously.

Keep both buttons 3 until the material is cut.

The return of the knife and its stop in the upper return position and the movement of the pressure beam upwards is automatic.



Releasing the buttons 3 during the movement of the pressure beam and the knife downwards interrupts this movement. If an object gets caught in the light barrier working area, the pressure beam and the knife will stop moving. To continue cutting, remove the unauthorized item and simultaneously restart both buttons 3.

Paper clips or other hard objects can damage the blade!

8. OPERATIONAL ACTIVITIES

8.1 Replacing the knife in the cutter

It is recommended, on the basis of experience, to change the knife to sharp after about 8 hours of effective, continuous work.

	DANGER!
	Do not put hands into the cutting zone!

- Danger of injury to the operator and auxiliary personnel
- Danger of injury to hands and hands in the knife area through cutting
- The edge of the knife is sharp - do not touch
- Do not handle the knife without the handle
- The blade may only be changed when the tools for replacing it are undamaged
- Blunt knives should be put in cassettes immediately
- Knives intended for scrapping must be deliberately blunted
- Worn and blunt knives should be taken to the scrap yard

8.1.1 Removing the knife

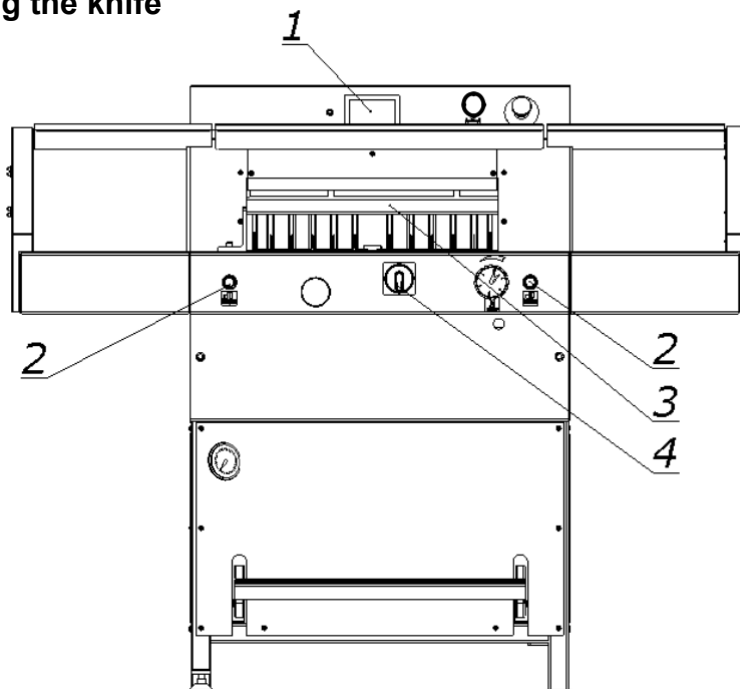


Figure 20

8.1.1.1 Select the "Change knife" function on the programmer 1 screen (Fig.20) ("Programmer's manual").

8.1.1.2 Pressing the push buttons 2  (fig.20) at the same time, start the cutting cycle. The knife 3 is held in the lower position.

8.1.1.3. Turn off the power supply of the electrical system by turning the main switch knob 4 (fig.20) to the "0" position

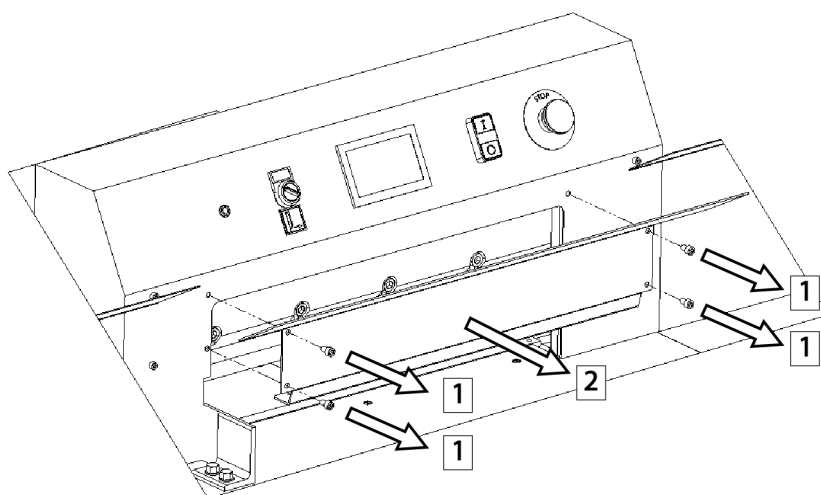


Figure.21

8.1.1.4 Remove the four screws 1 (fig.21) securing the cover 2 and remove the cover 2.

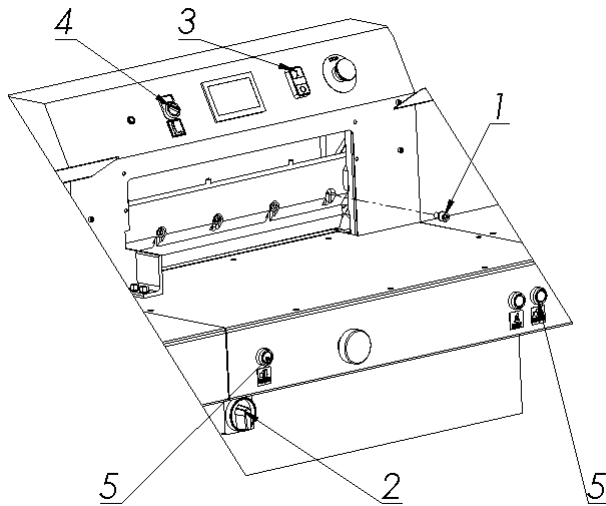


Figure.22

8.1.1.5 Unscrew and remove the first fastening screw 1 from the right side of the cutter bar (Fig. 22).

8.1.1.6 Switch on the power supply of the electrical system by turning the main switch knob 2 (fig.22) to position "I"

8.1.1.7 Turn on the power supply to the control system by pressing the green push button 3.

8.1.1.8 On the program screen 4 (fig.22), deactivate the "knife change" function

8.1.1.9 Press simultaneously on the push buttons 5. The knife will return to its upper position.

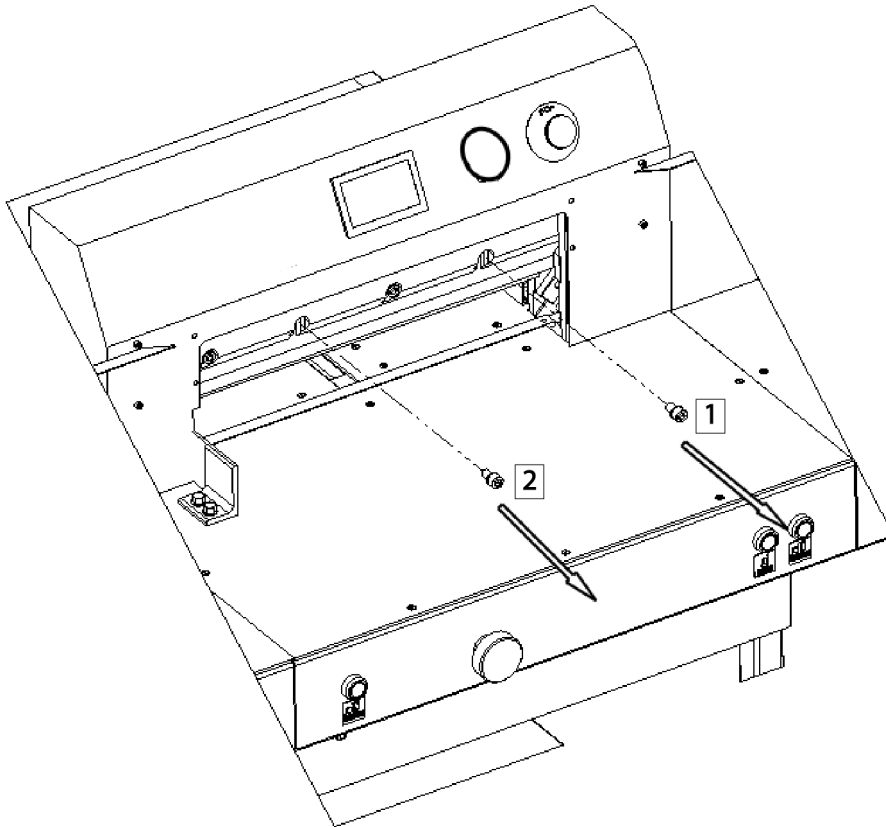


Figure 23

8.1.1.10 Unscrew and remove the fastening screws 1 and 2 (Fig. 23).

8.1.1.11 In the place of screws 1 and 2 removed (fig.23), screw in the transport handle 1 (fig.24), so that it secures the knife to the cutter bar.

8.1.1.12 Unscrew and remove the screws 2 (fig.25)

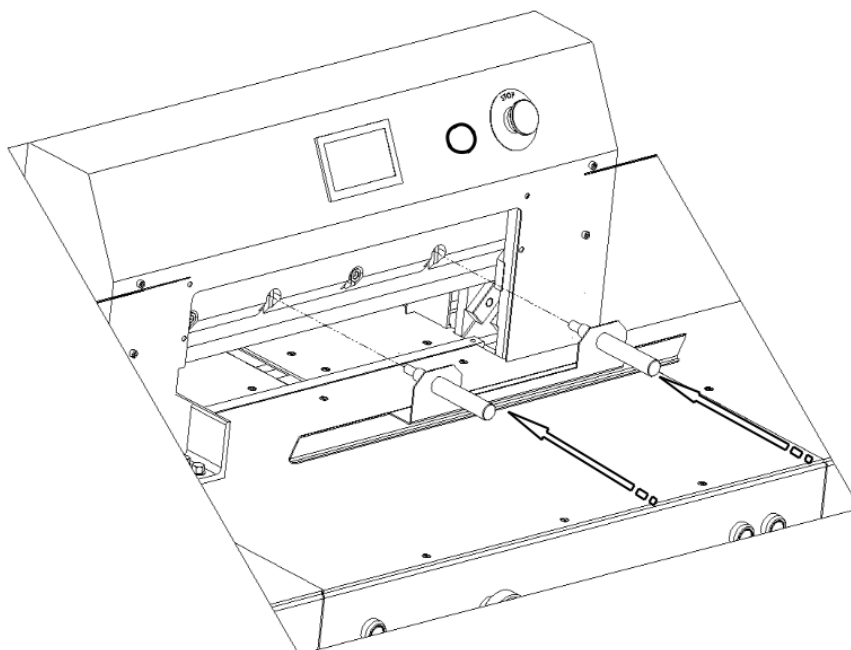


Figure 24

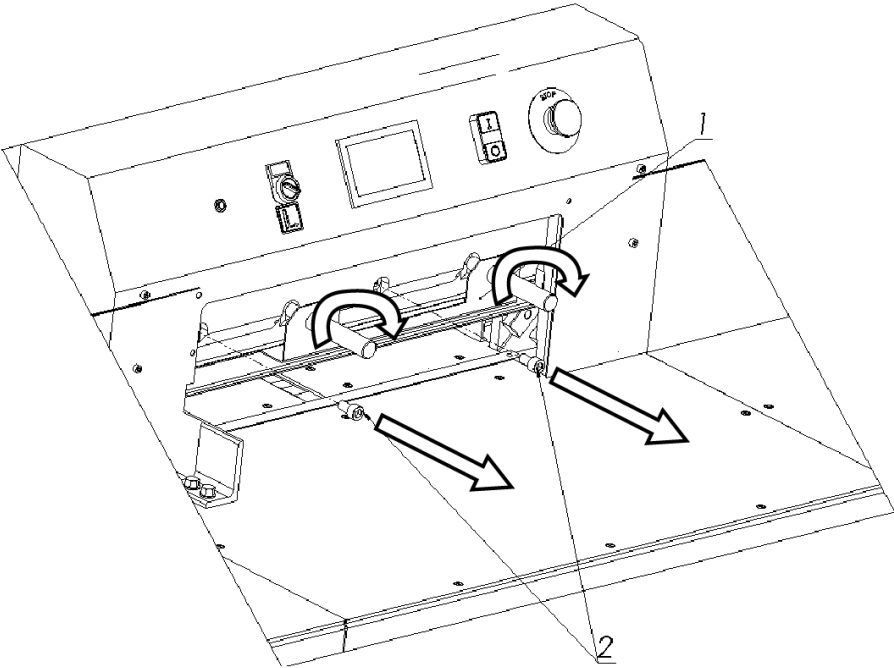


Figure 25

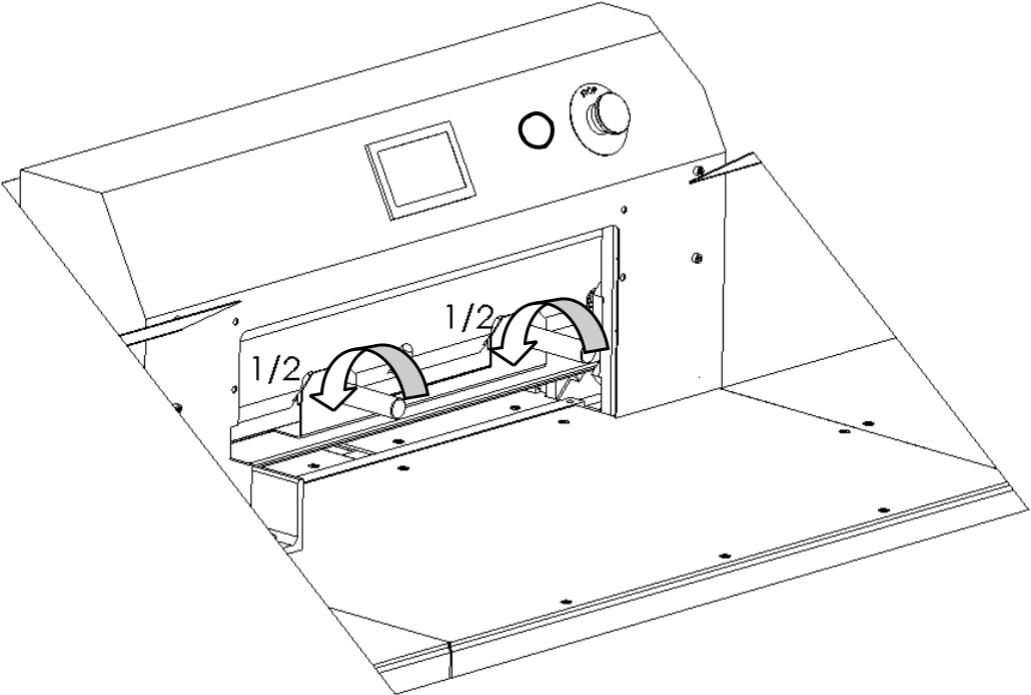


Figure 26

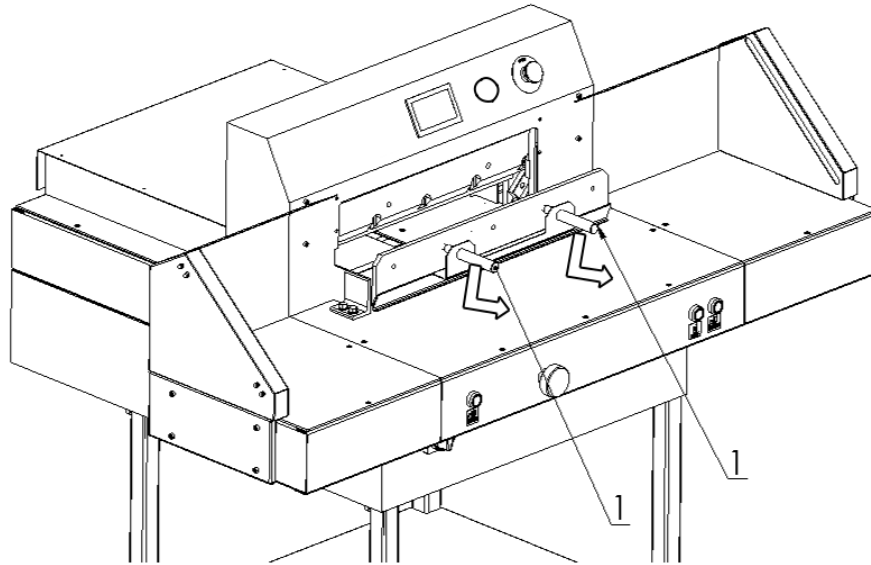


Figure 27

8.1.1.13 holding the transport handles release the clamp by turning them 1/2 turn at a time to the left (fig 26) and carefully pull the knife down (fig 27). Take the removed knife into the special protective packaging (Fig. 28a - 28d.) With the blade inwards and fasten it with two screws. To unscrew the bolts fixing the blade knife, use the RWTg 8 wrench provided on the cutter.

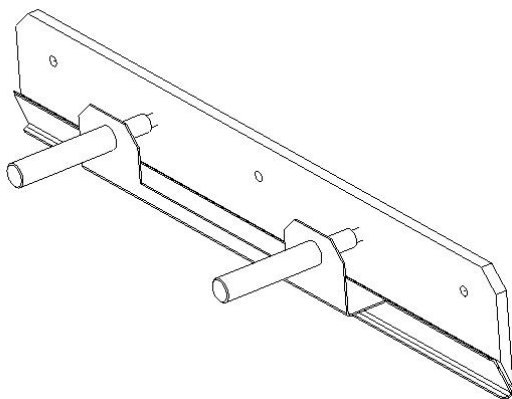


Figure. 28a Knife in the transport handle

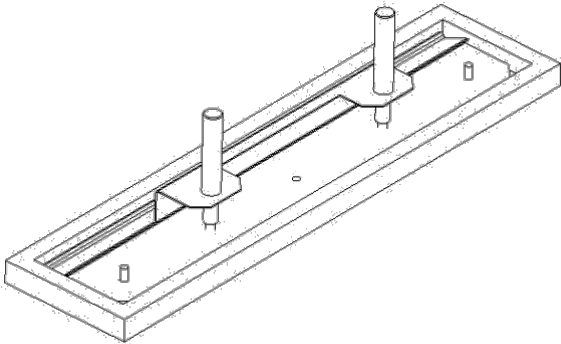


Figure 28b Knife in the package

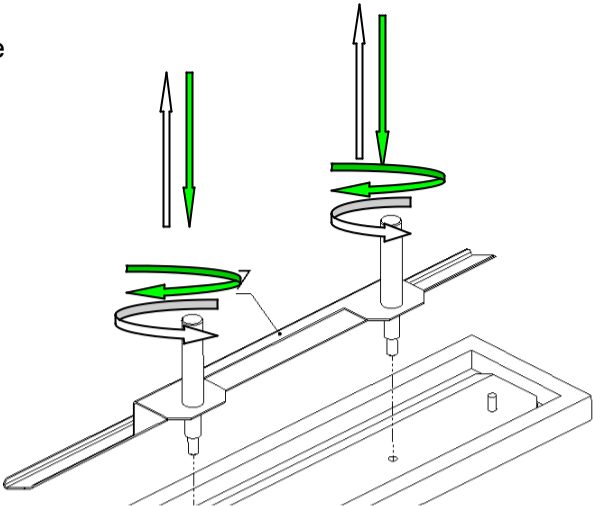


Figure 28c Unscrewing / securing the transport handles

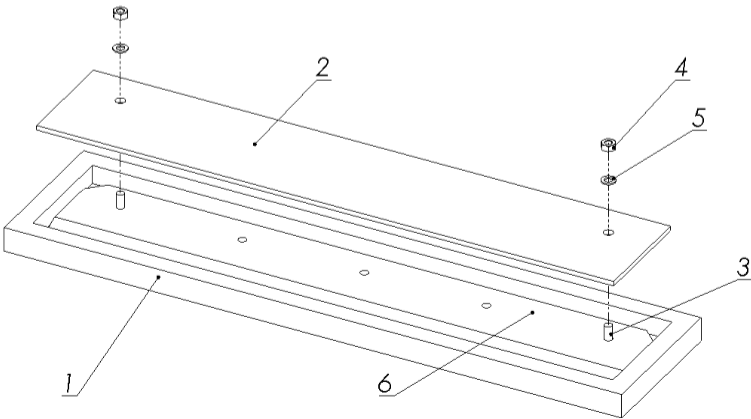


Figure 28d Fixing the knife in the package


1. Packaging
2. Cover
3. Screw
4. Nut
5. Washer
6. Knife
7. Knife change holder

8.1.2 Inserting a knife

8.1.2.1. Remove all adjusting screws 1 (figure 29) so that their faces are hidden in the knife bar body.

Figure 29 B - the adjusting screw does not protrude below the protrusion 2 in the cutter bar - correct position.

Figure 29 A - the adjusting screw protrudes under the projection 2 in the cutter bar - incorrect position, remove the screw.

	<p>WARNING!</p> <p>The assumed knife must be able to support its upper surface with the projection of the cutter bar. Failure to comply with this condition may result in a situation when the assumed knife is higher than removed, serious overloading and even damage to the machine.</p>
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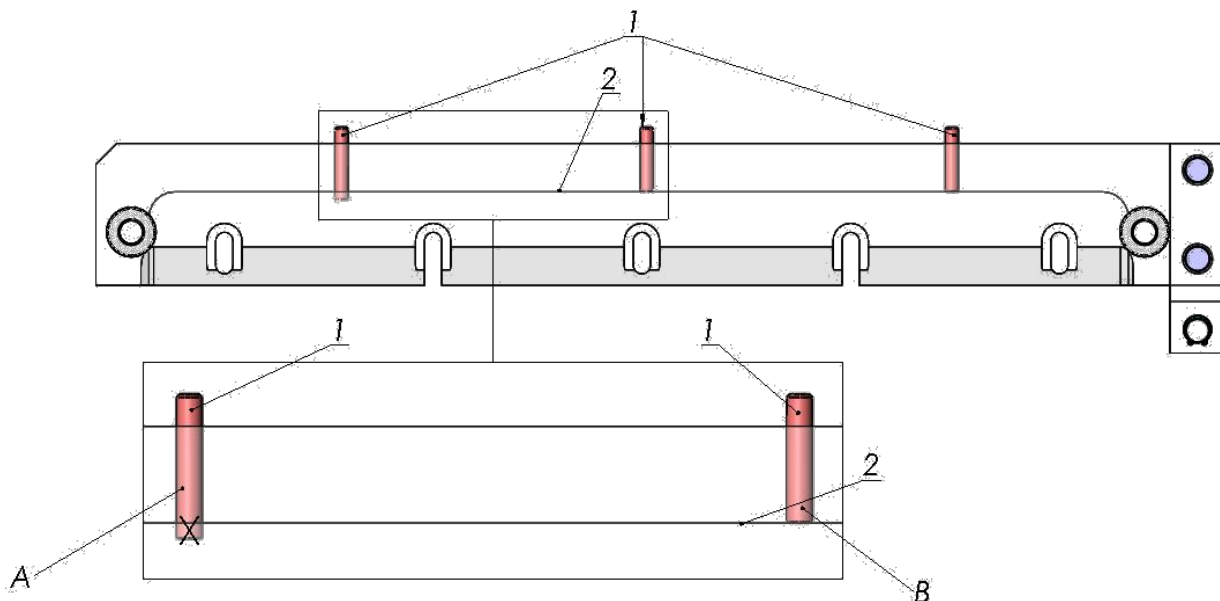


Figure 29 Position of adjustment screws.

8.1.2.2. Remove the knife from the packaging (Fig.28a - 28d)

8.1.2.3. Holding the transport handles 1, insert the knife 2 into the cutter so that the transport handles screwed into the knife hit the cutouts in the cutter bar 3. (fig.30)

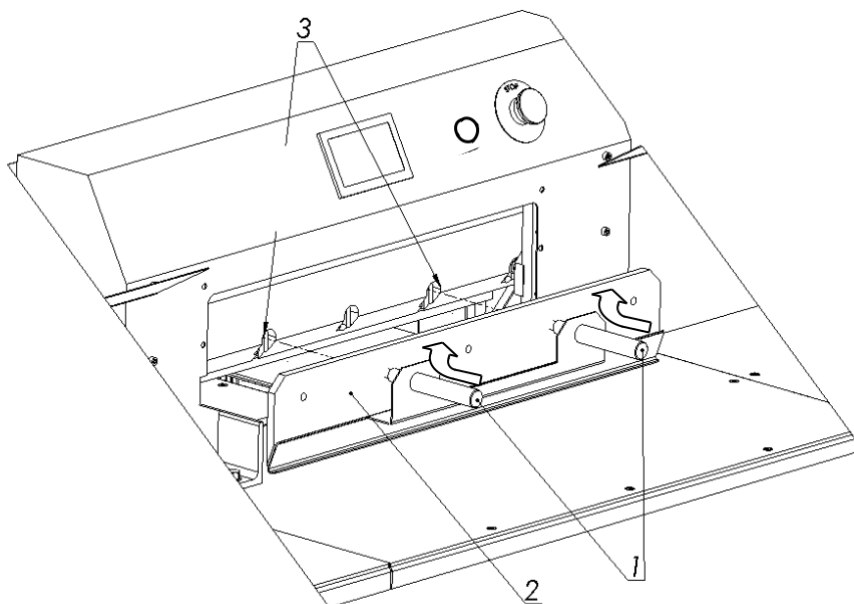


Figure 30

Insert the knife so high that its upper surface will rest against the protrusion in the knife bar 2 (Fig. 29).

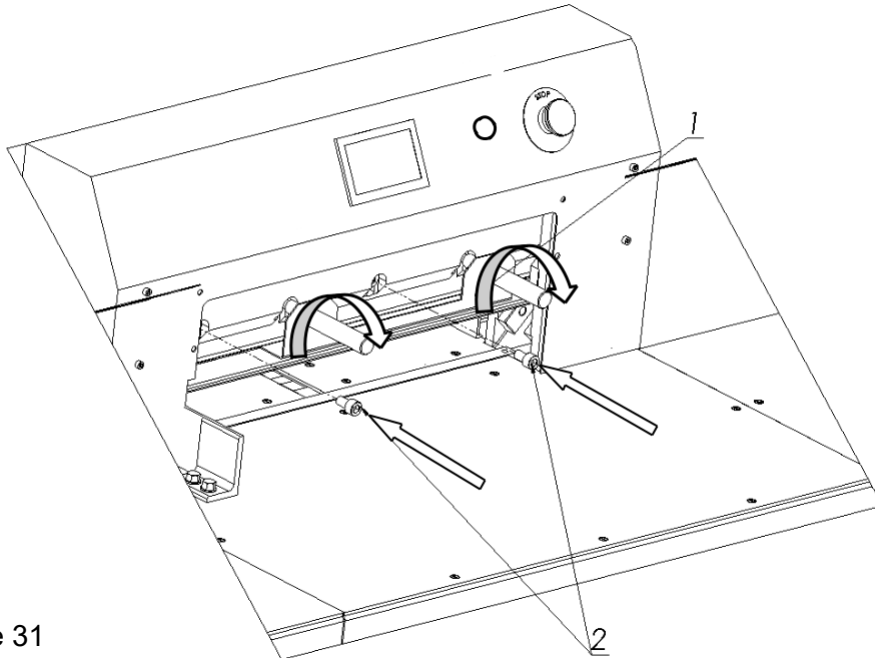


Figure 31

8.1.2.4 Pre-attach the knife to the cutter bar by turning both transporting handles 1 to the right (fig. 31).

8.1.2.5 Install the fastening screws 2 (fig. 31).

8.1.2.6 Unscrew both transport lugs 1 (figure 31) and replace them with the mounting screws 1 and 2 (fig. 32).

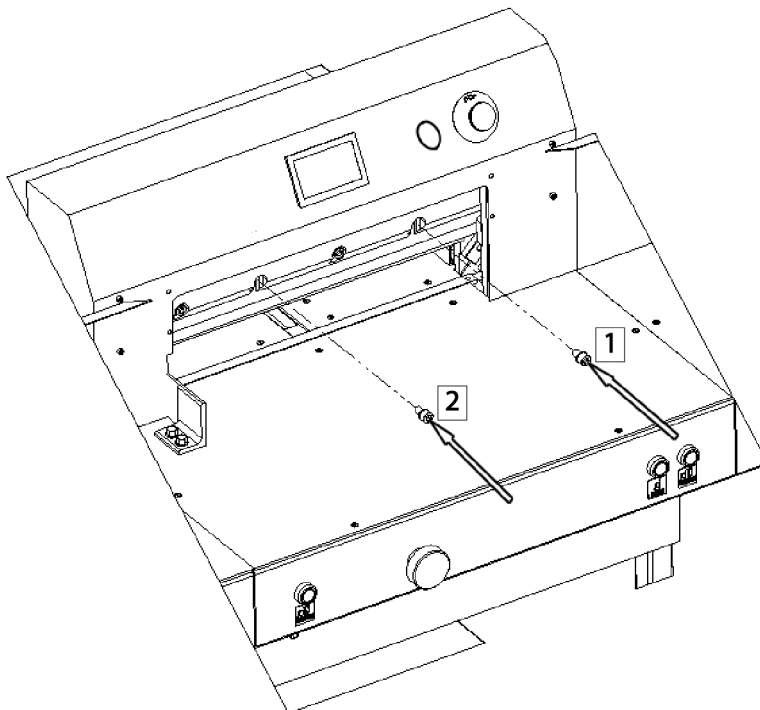


Figure 32

8.1.2.7 Slightly unscrew the first screw on the left side of the clamping screw 2 (Fig. 31), taking care that the screw head does not protrude above the knife beam sliding plane.

8.1.2.8 Press the "Change knife" function on the programmer 3 (Fig.22)

8.1.2.9 Pressing the push buttons 2  (Fig. 33) at the same time, start the cutting cycle. The knife will stop in the lower position.

8.1.2.10. Switch off the power supply of the electrical system by turning the main switch knob 3 (fig. 33) to the "0" position

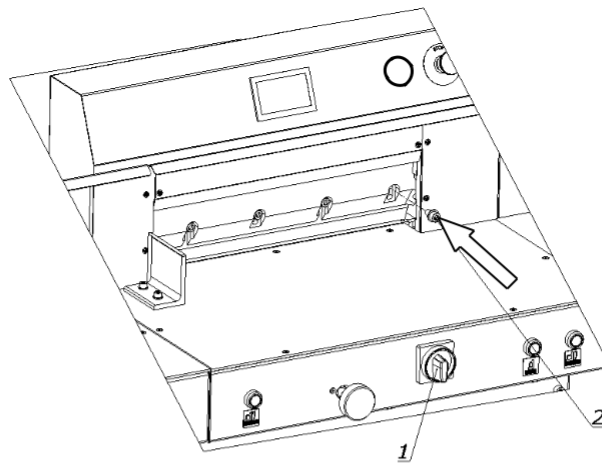


Figure 32a

8.1.2.11. Screw in the bolt 2 lightly (fig.32a)

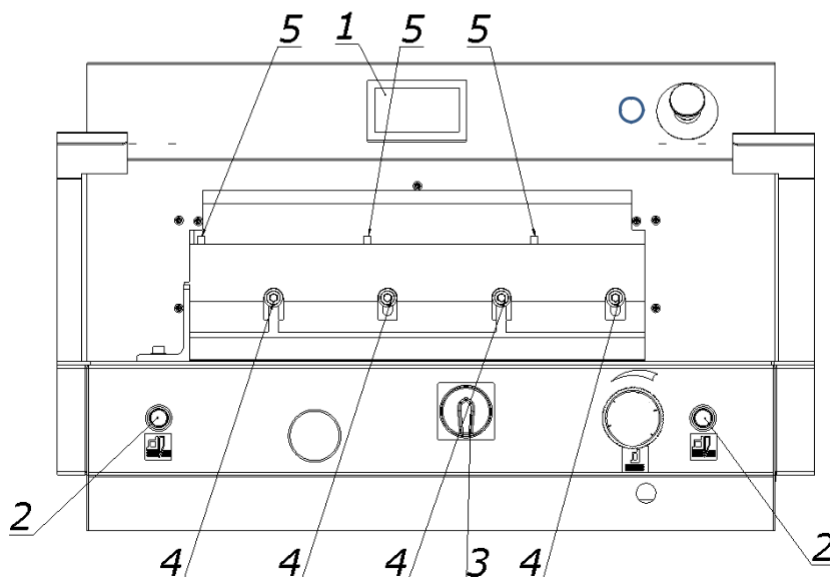


Figure 33

8.1.2.12. Remove (loosen) the fixing screws 4 (fig.33) so that the knife falls under its own weight on the base bar with its entire length.

8.1.2.13. Tighten the adjustment screws 5 (fig. 33) as far as they will go, so that the blade of the knife is cut into the base bar, approx. 0.3 mm.



WARNING!

Performing too deep cuts may result in shortened blade life!

8.1.2.14. Tighten the fixing screws 4 (figure 33)

8.1.2.15. Switch on the power supply of the electrical system by turning the main switch knob 3 (fig. 33) to position "I".

8.1.2.16. Turn off the "knife change" function on the programmer 1 (fig.33)

8.1.2.17. Press simultaneously the push buttons 2. The knife will return to its upper position.

8.1.2.18. Turn off the power supply of the electrical system by turning the main switch knob 3 (fig. 33) to the "0" position

8.1.2.19. Firmly tighten the first screw on the left side of the knife. 2 (Fig. 31).

8.1.2.20. Turn on the power supply of the electrical system by turning the knob of the main switch 3 (fig.33) to position "I"

8.1.2.21 Switch on the power supply to the control system by pressing the green push button 3 (fig.22).

8.1.2.22 Carry out a cutting test.

If the knife does not cut the pile to the last sheet, repeat steps 8.1.2.7.

8.1.2.23 Attach cover 2 with the screws 1 (fig.34)

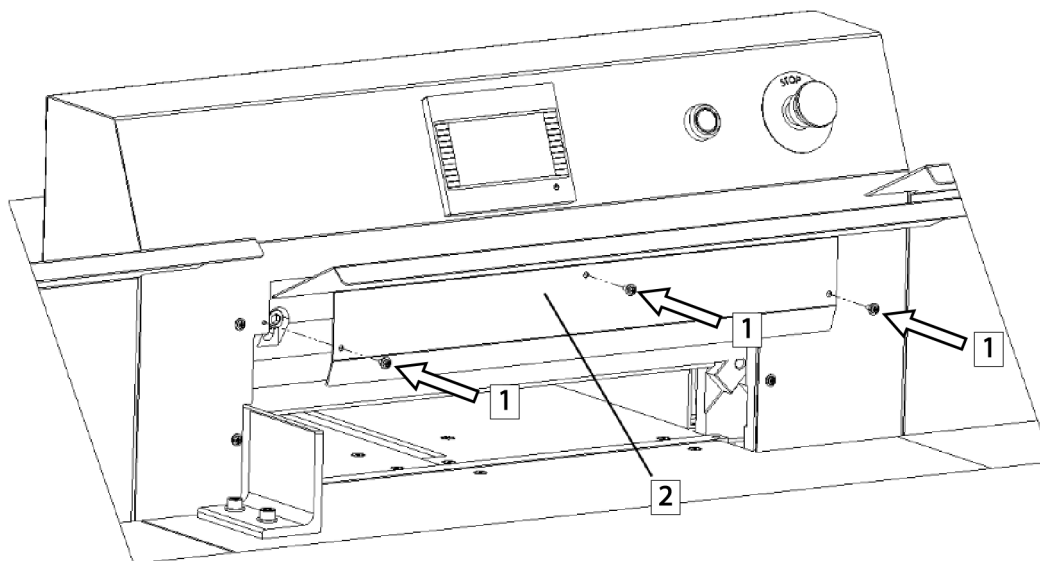


Figure 34

8.2 Reversing or replacing the cutter bar

	DANGER!
	Risk of injury!

The cutting quality of the lower stack sheets and the speed of blunting of the knife depend to a large extent on the cutting stick. Replacing or reversing the cutting stick is recommended after each knife change or in the event of breaking (not cutting) the lower sheets.

	WARNING!
	The channel between the tables into which the cutting stick is inserted must always be clean.

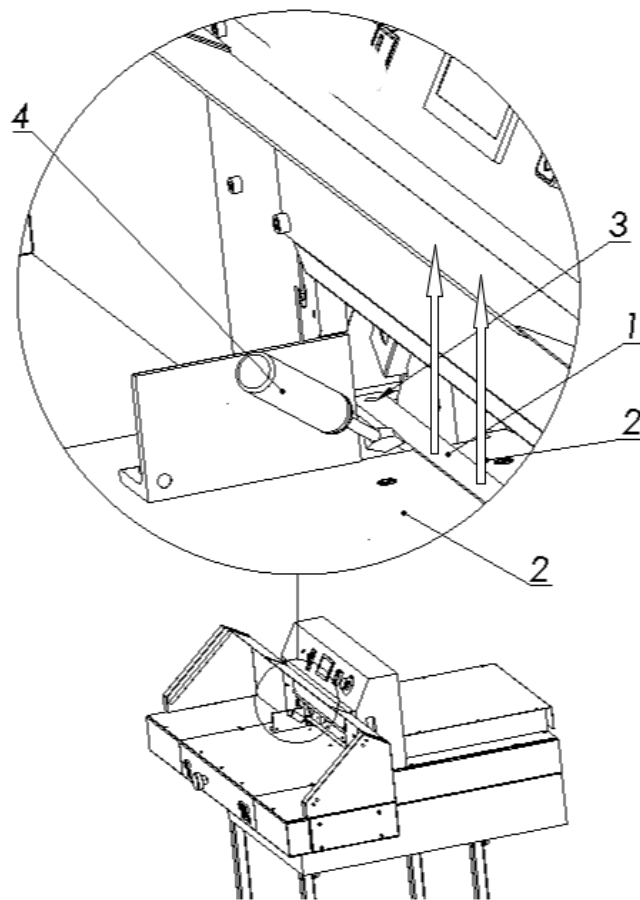


Figure 35 Removing the cutting stick.

1. Cutting stick 1
2. Table 2
3. Fixing pin
4. Screwdriver

8.2.1 Lift the cutting stick 1 with a screwdriver 4 (fig. 35)

8.2.2 Rotate or replace the cutting stick

8.2.3 Insert the replaced stick into the channel between the tables 2 and place it on the dowel 3 (Fig. 35)

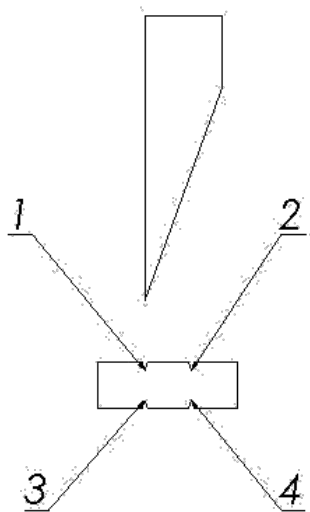


Figure 36 Diagram of using the cutting stick

Rotation of the cutting stick in both planes gives the possibility of obtaining four lines of contact with the knife, marked in Figure 36 as 1, 2, 3, 4.

8.3 False clamp

The use of the insert under the pressure bar prevents creation of markings made by the lower part of the beam on the material to be cut.

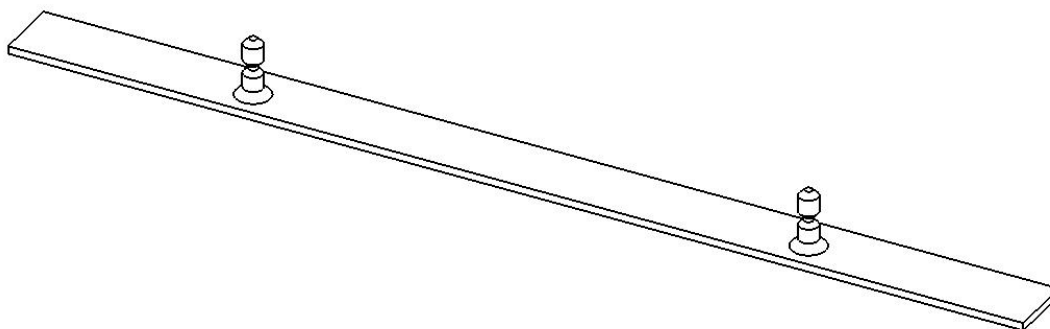


Figure 37 False clamp plate (insert)

The pressure beam insert (fig. 37) is attached under the front table in the place shown in figure 38.

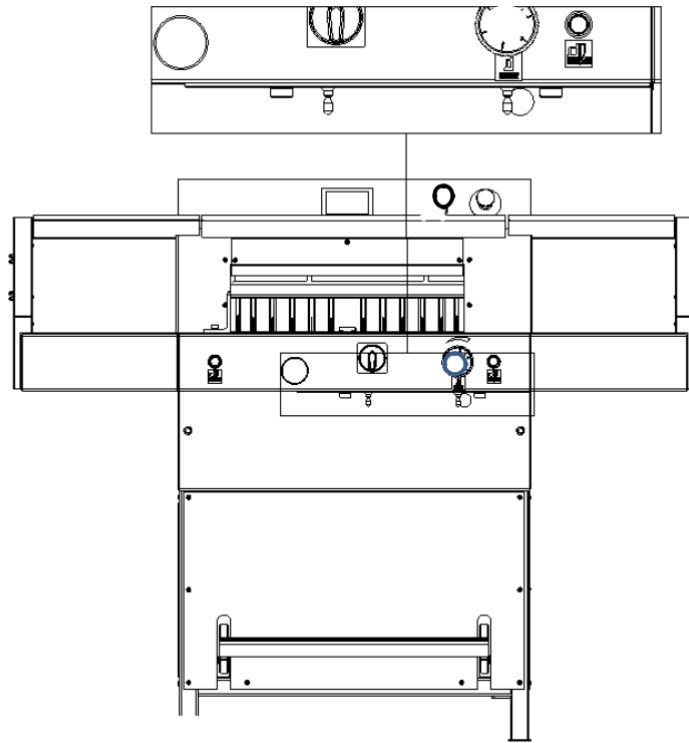


Figure 38 Placement of the insert before attachment in the pressure bar

	DANGER!
	Risk of injury!

In order to mount the insert in the pressure bar:

8.3.1 Place the insert 1 (Fig. 39) under the pressure beam so that the insert pins are under the holes in the pressure beam.

8.3.2 Pressing pedal 2 (Fig. 39), bring the pressure beam down so that the insert pins hit the holes in the beam and the insert adheres the entire surface to the bottom surface of the beam.

8.3.3 Use a 3-mm hexagonal key with 3 mm to firmly screw in the screws 3 (Fig. 39) in the threaded holes in the clamping beam, causing the insert to be blocked in the clamping beam.

8.3.4 Release the pressure on the pedal 2 (Fig. 39) - the beam with the inserted cylinder returns to the upper position

The removable insert must be attached under the front table!

(Fig. 38)

INFO

The lack of the insert in the place of attachment is treated by the programmer as if it was mounted in the clamping beam and narrow cut (waste) is greater. Mounting the insert into the pressure bar causes;

the minimum narrow cut (waste) is 40mm (without insert 22mm),
maximum stack height is 76mm (without 80mm insert)

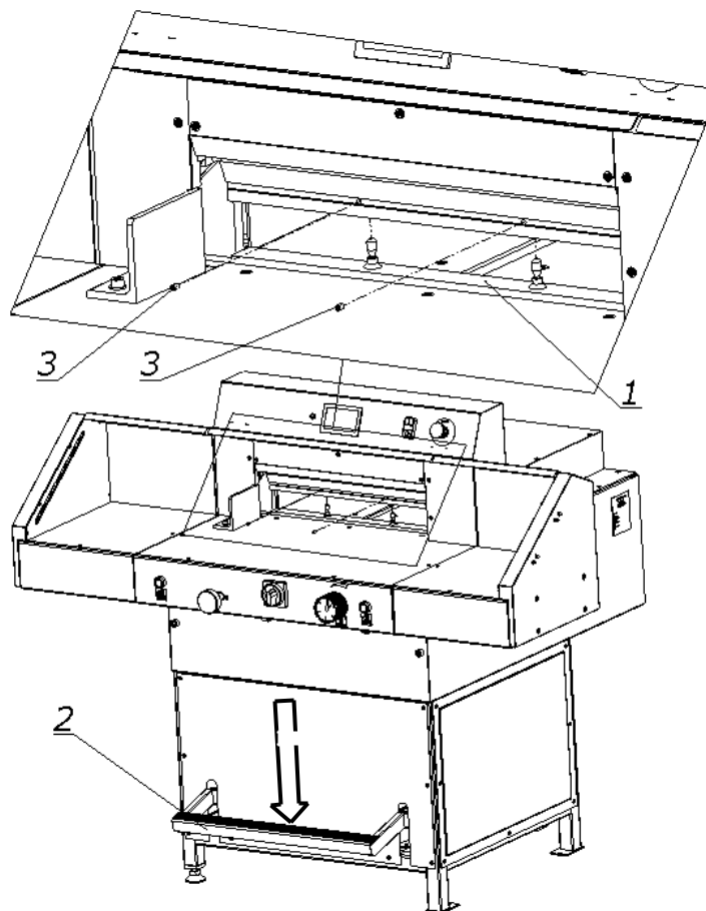
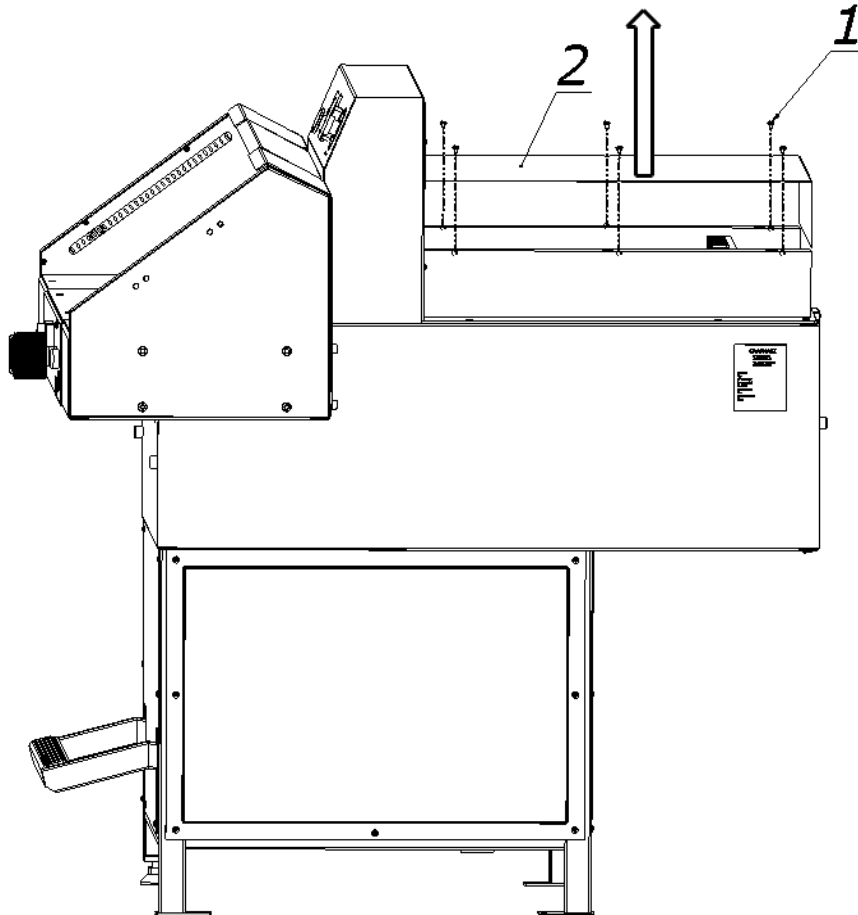


Figure 39 Operating elements used when mounting the insert into the pressure bar

8.4 Adjusting the parallelism of backguage

Depending on the required inclination of backguage, it must be adjusted using drawings 40 and 41,



Drawing. 40 How to remove the cover

To adjust backguage:

8.4.1 unscrew the screws 1 (fig.40)

8.4.2 remove the cover 2 (fig.40)

8.4.3 loosen the screws 1 (fig.41)

8.4.4 loosen the nuts 2 (fig.41)

8.4.5 by turning the screws 3, place the backguage 4 (Fig. 41) at the right angle

8.4.6 lock the adjustment screws with 3 nuts 2 (fig.41)

8.4.7 firmly tighten the screws 1 (fig.41)

After the cutting attempt, repeat the adjustment until the parallel cutting is achieved.

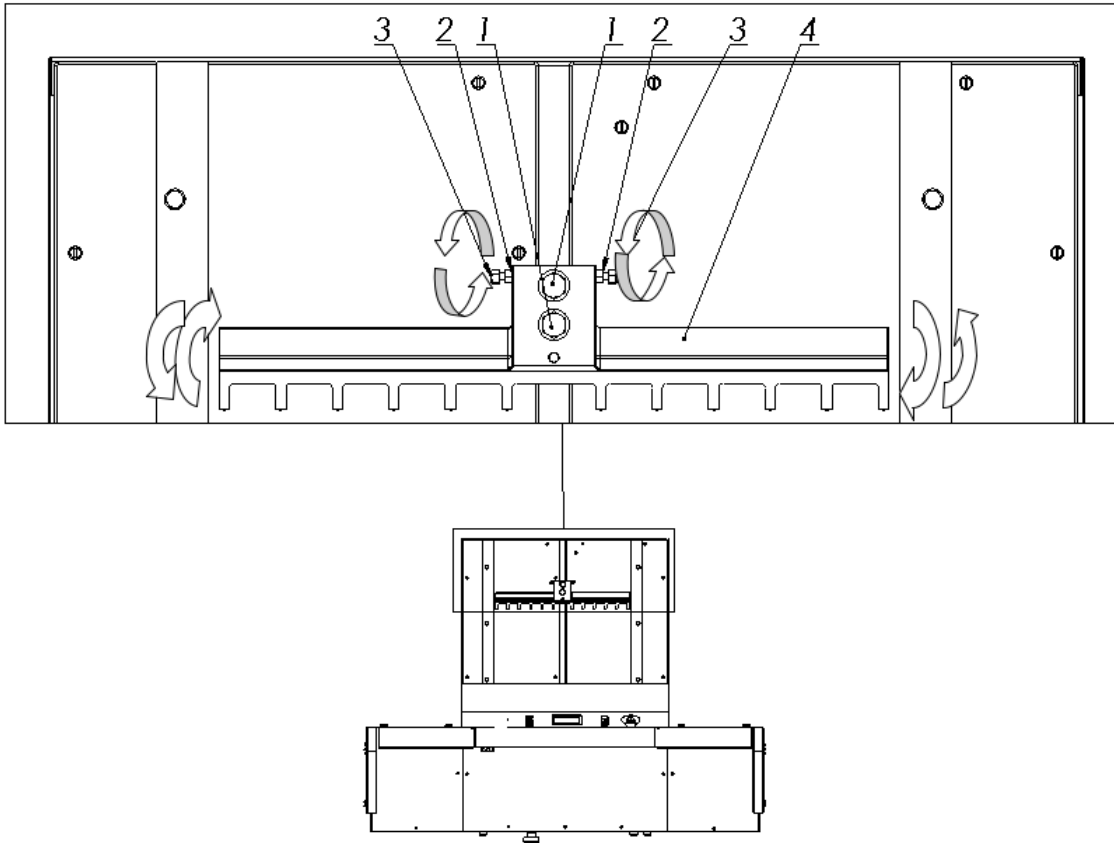



Figure 41 Adjusting elements of backgauge

9. MAINTENANCE

	<p>DANGER!</p>
<p>Maintenance and lubrication work may only be carried out after turning off the machine (main switch in position "0").</p>	


9.1 Daily maintenance

Every day, remove all waste from the cutter and the operator's working space.

9.2 Treatments that should be performed cyclically

At regular intervals, waste and dirt should be removed from hard to reach machine and surrounding areas:

- Regularly remove paper waste from the press and knife drive holes
- Air intakes for motors must be kept free of dust and debris.

	<p>DANGER!</p> <p>Caution – Fire hazard with insufficient ventilation!</p> <p>The machine guards must be put back into place immediately after maintenance work has been completed!</p>
---	--

9.3 Lubrication

The list of lubrication points is shown in Figures 44, 45, 46, 47, 48 and described in table 12. Access to lubrication points is possible after removing the covers shown in Figs. 42, 43, 46, 48.

When lubricating the knife assembly, use the controls as when changing the knife (Chapter 8.1)

In places requiring lubrication with a grease, apply grease with a grease gun. It is enough to press the trigger of the lubricator 2-3 times.

The indicated points should be lubricated once a week!

Table 12 List of lubrication points of the cutter mechanisms

Mark	Cutter mechanism	Type of lubricant	Lubrication point	Figure
①	Knife	Grease	<ul style="list-style-type: none"> • Side surfaces of the guides (in contact with the knife body) • Internal surfaces of guides (in contact with rollers) • Side surfaces of the knife body • Fixing the hydraulic cylinder of the knife • Knife pulley 	43, 44 46 47
△2	Backgauge	Oil	<ul style="list-style-type: none"> • Guide roller (apply a thin layer of oil.) • Lead screw (apply a thin layer of grease) 	45 46
③	Clamp	Grease	<ul style="list-style-type: none"> • The pressure beam slides • Shaft bearings • Attaching the hydraulic pressure cylinder 	44 46 47

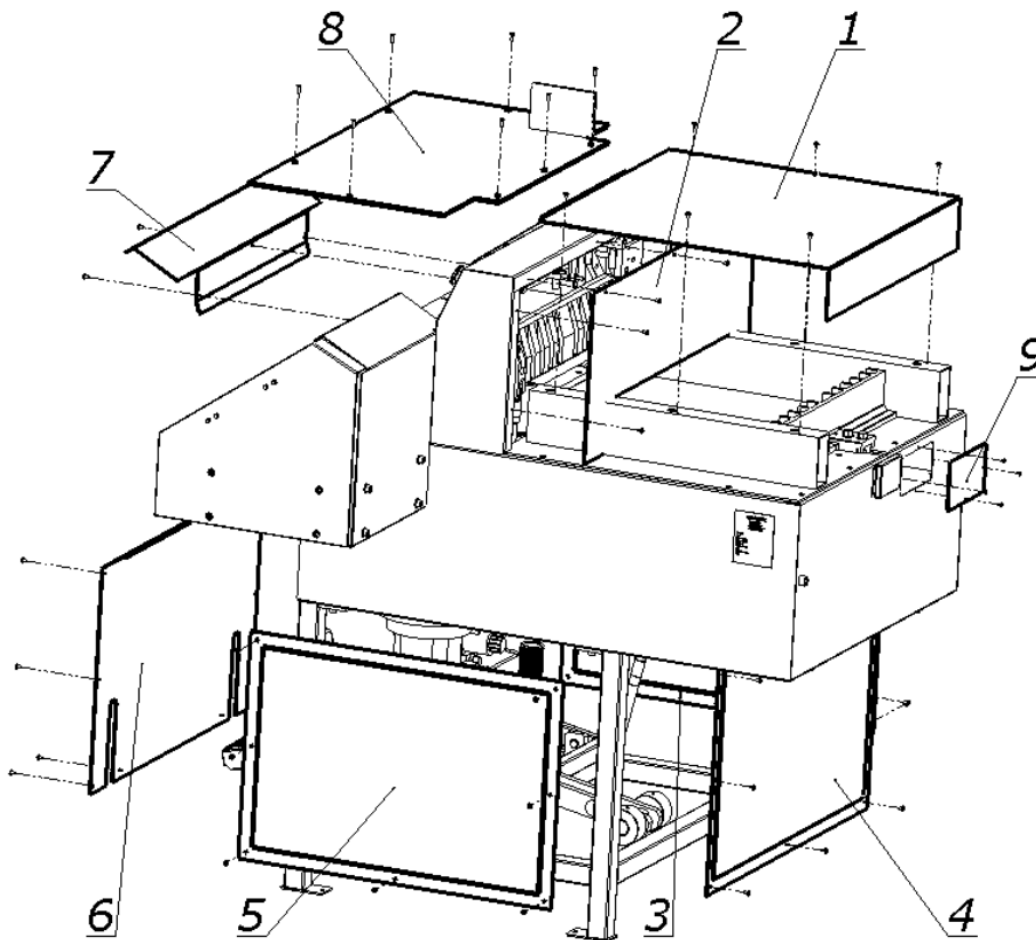


Figure 42 Way of unscrewing the covers

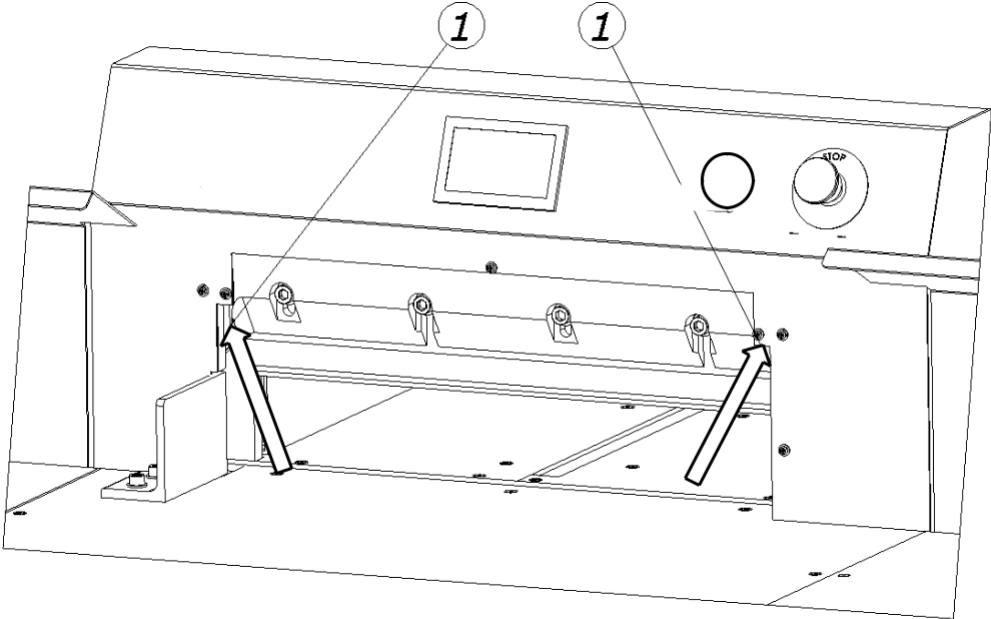


Figure 43 Lubrication locations of the knife assembly.

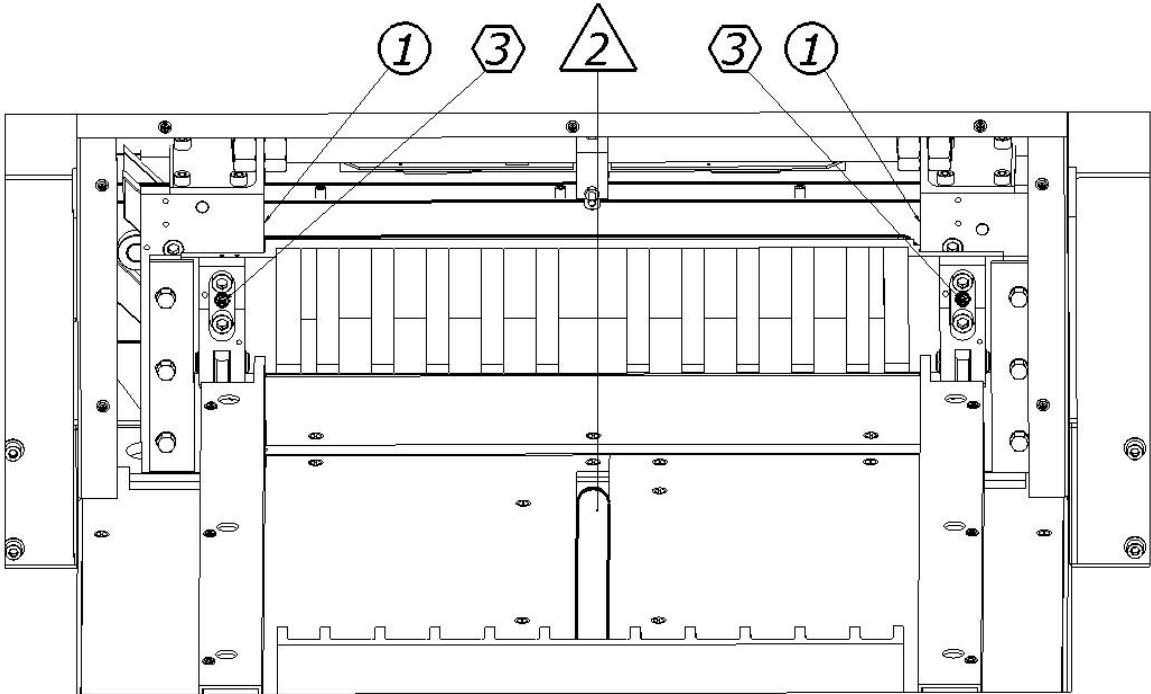


Figure 44 Lubrication points of the knife assembly (1), the pressure beam (2), the guide shaft of the feed mechanism (3)

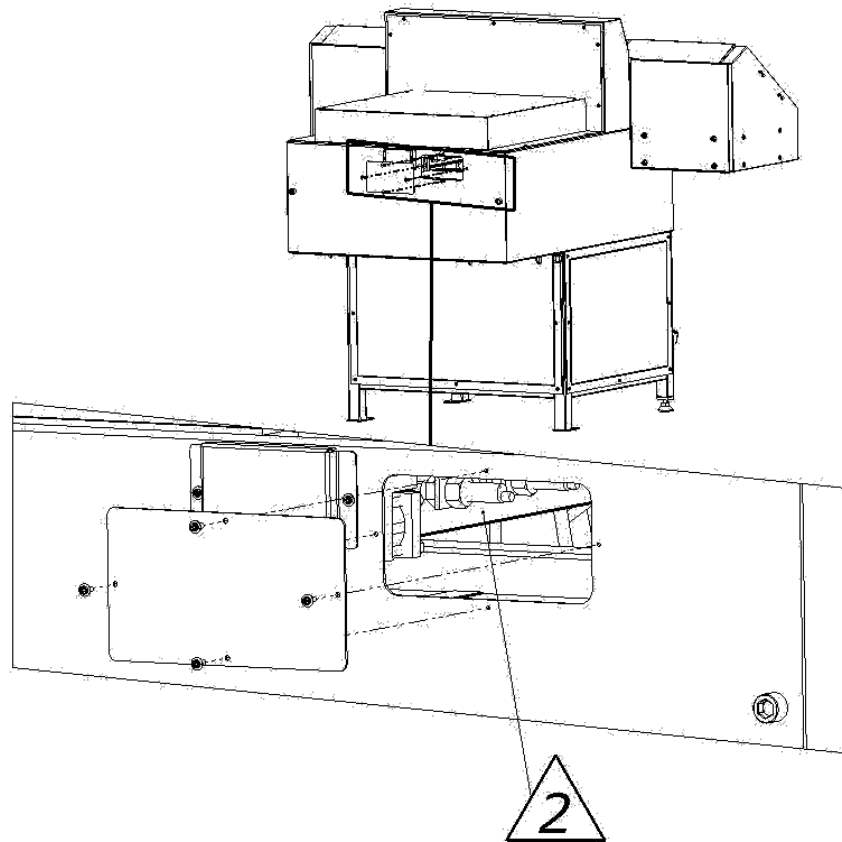


Figure 45 Grease location of the lead screw.

The worm gear mechanism is filled with an exchangeable oil. The exchange should be made after 5 years of work. The use of GL-5 and / or MIL-L-2105D gear oil is recommended.

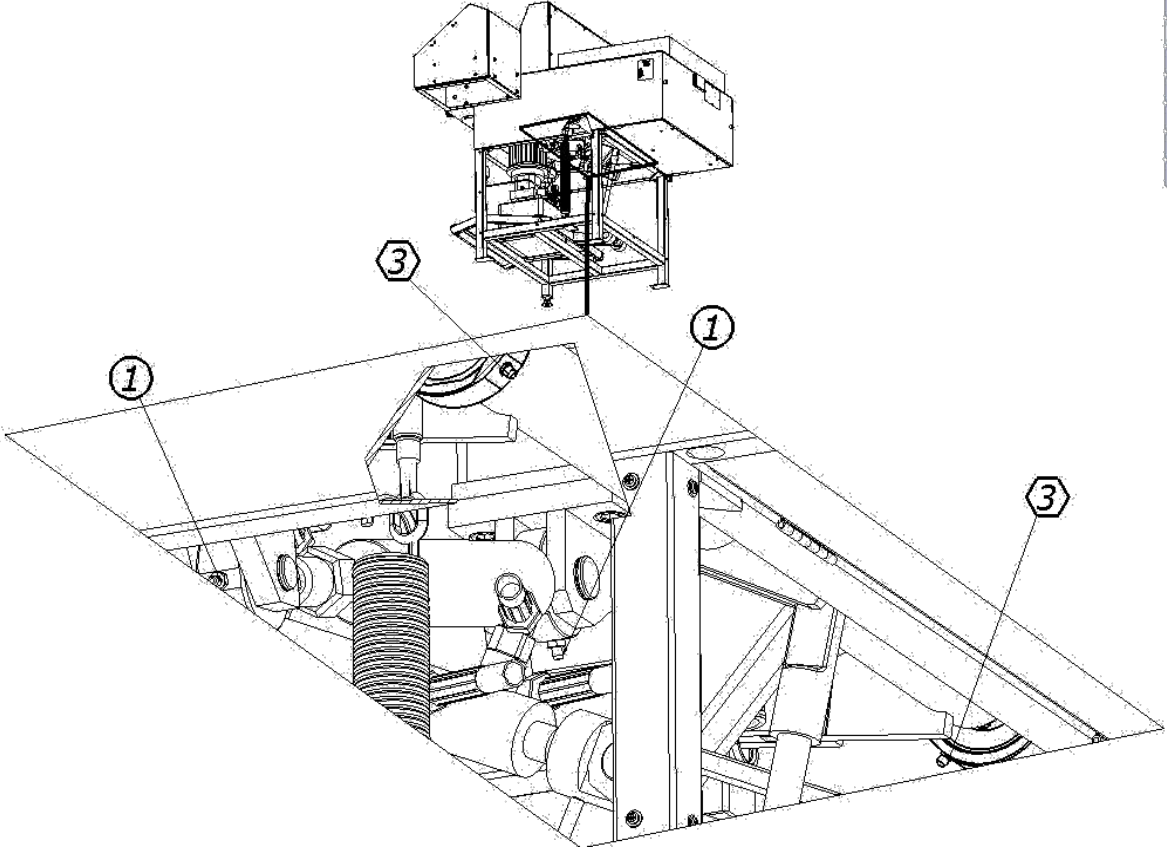


Figure 46 Arrangement of the lubrication points of the knife assembly 1 and the pressure mechanism 3

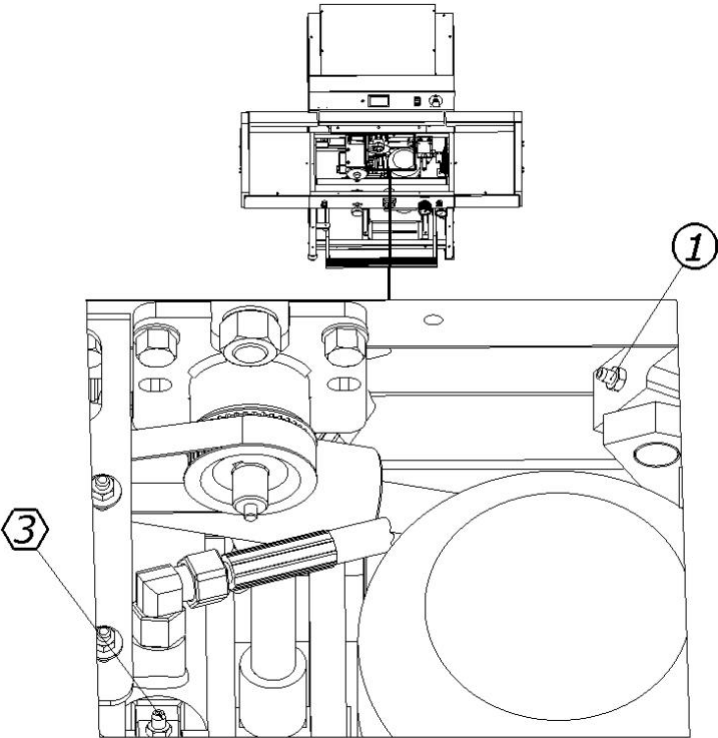


Figure.47 Grease location of clamp piston 3 and knife tie 1

9.4 Hydraulic power supply

The overflow valve was set to 110 bar and sealed.

This setting can be checked using a manometer (included in the aggregate) by connecting it to the manometric connection.

Unauthorized change of the pressure value is unacceptable and causes the warranty for the aggregate to be lost!

9.4.1 Working conditions of the aggregate

- ambient temperature of the unit from 5 °C to 30 °C,
- HV 46 hydraulic oil,
- dust free air,
- free air exchange for cooling,
- the hydraulic oil temperature must not exceed the specified value by the manufacturer of hydraulic oil,
- the aggregate is designed to work in a closed room, shielded against environmental influences, i.e. direct exposure to radiation solar, atmospheric precipitation,
- use in accordance with the principles of health and safety at work and fire regulations,
- the unit must be operated by a qualified and trained person staff

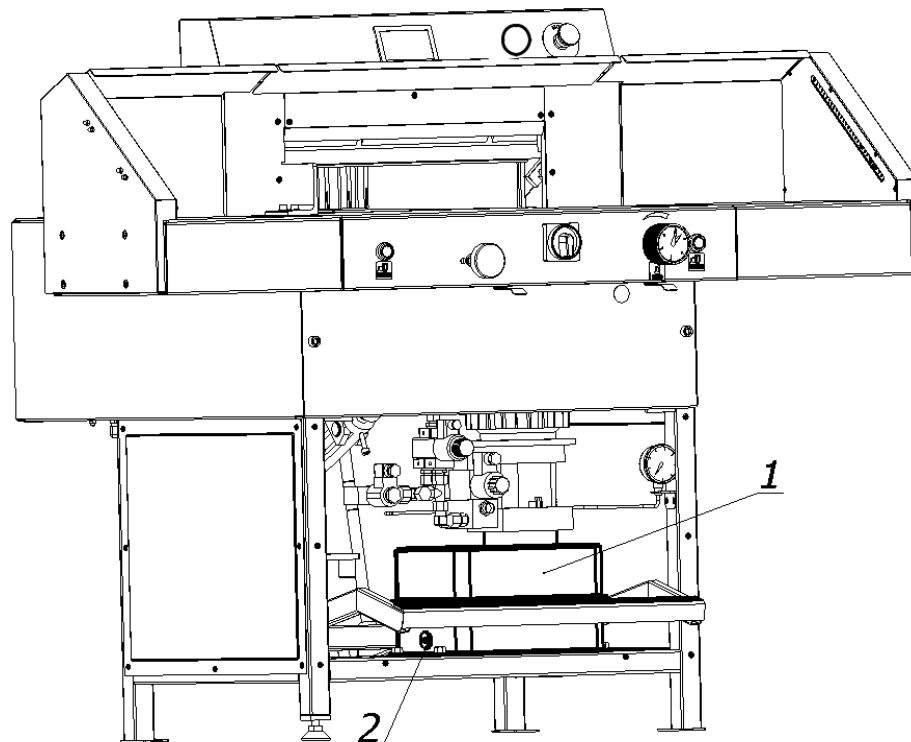



Figure 48 Oil change in in hydraulic system

	<p>DANGER!</p> <p>Danger of burns due to hot oil!</p> <p>Danger of hydraulic oil splash!</p>
---	---

According to the recommendations of the hydraulic power supply manufacturer, the oil in it should be replaced after a year of intensive work.

To change the oil, unscrew the drain plug 2 (fig. 48) located in the bottom of tank 1 (fig. 48).

Old oil should be drained while it is still warm.

Fresh oil should be poured after first screwing in the drain plug 2 through the filler opening 3. (Fig. 49)

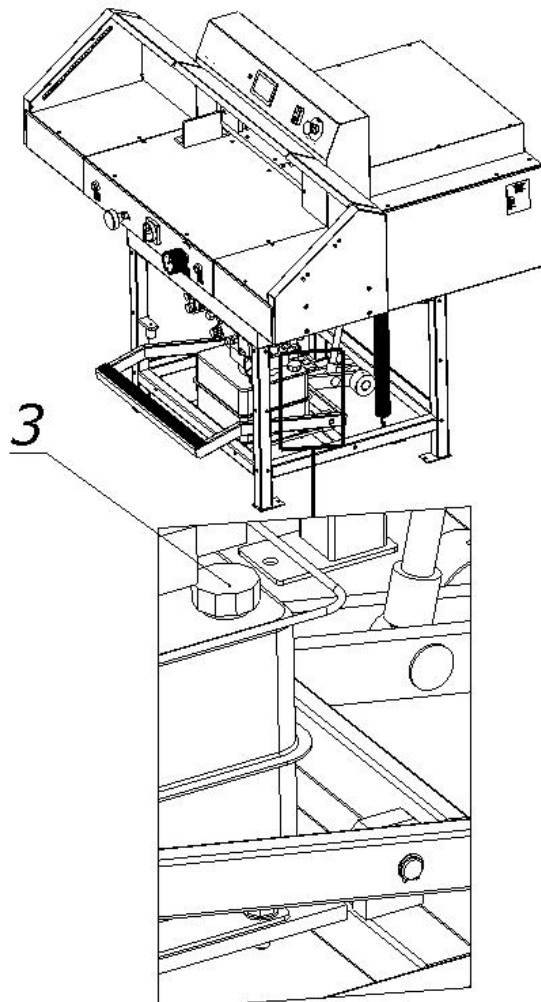




Figure 49 Location of the oil fill opening

	<p>DANGER!</p>
	<p>Risk of injury!</p>

After lubrication: Using a cloth, completely remove any excess lubricant (grease, oil), in particular from the table surface on which the cutting material is laid and the work pieces in contact with the cut material, i.e the knife body and the pressure beam.

9.5 Inspections

9.5.1 General recommendations

- After each change, clean the machine (mainly from paper dust)
- Pay attention to the cleanliness of contacts of control elements (contactors, connectors)
- Check the screw connections of the cutter elements and if necessary, tighten the screws.

9.5.2 Checking hydraulic hoses

Check regularly that the hose is not damaged or frayed, and check the oil level.

Recommended test criteria for hydraulic hoses:

- Damage to the inner layer (scratches, cuts, cracks)
- Hose deformation
- Leaks (on the surface of the hose, fixing)

The condition of the hoses should be checked at least every 12 months.

Replacement of hoses is recommended at least every 6 years.


9.5.3 Knife regeneration

The quality and accuracy of cutting depends primarily on the sharpness of the knife and the right angle of its blade.

Features of a blunt knife

- rough and uneven surface of the sliced stack
- ticking the edge of the cut material
- inaccurate slicing
- increased formation of paper dust.

10. FAILURES

	<p>DANGER!</p> <ul style="list-style-type: none"> • Each fault carries a risk of injury to the operator or his assistant. • If the cutter knife jams in the cut material during cutting, do not attempt to pull the material out from under the knife. • Defects can be eliminated only by personnel with appropriate permissions. • After completing the fault rectification, fit all covers and check that the individual protection devices are working properly. • Performing repairs by persons who do not have the proper qualifications and proper training results in an immediate loss of the cutter warranty, and also releases the manufacturer and the machine supplier from liability for damage caused.
---	---

10.1 Determining the causes of the fault

Determine if the vulnerability affects the elements:

- electric
- mechanical
- hydraulic
- programmer

10.2 Basic procedures for removing various types of defects

Electrical faults:

- Check the compatibility of the direction the motor is turning,
- check the fuses in the machine,
- measure the voltage,
- check that all connectors are tightened securely,
- check if there are any failures at the same time in other machines in the plant.

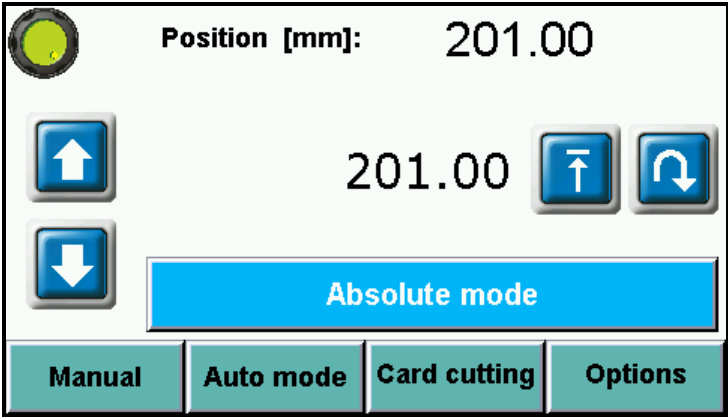
Mechanical faults:

- Look closely at all moving parts,
- check if abnormal noises occur during operation,
- check if the machine has been damaged, no cracks or iron filings appeared on it.

Hydraulic faults:

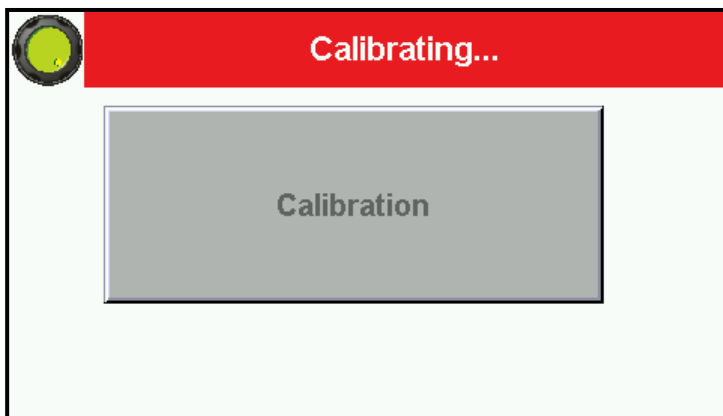
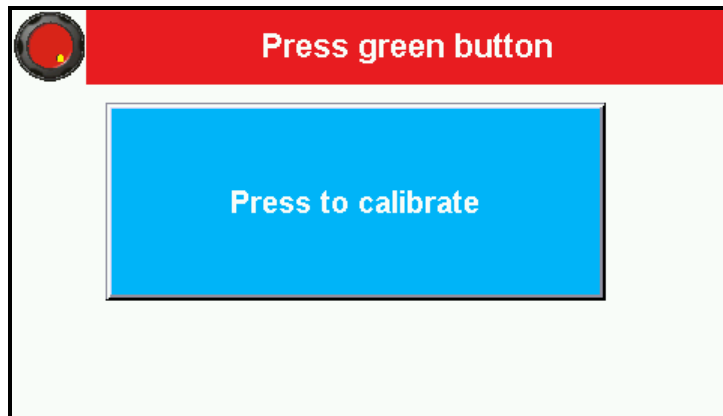
- Check whether the machine does not produce unusual noises,
- check the oil level,
- check the oil for its condition and color,
- make sure that there is no oil leak.

PROGRAM MODULE OPERATOR MANUAL



1. MACHINE START

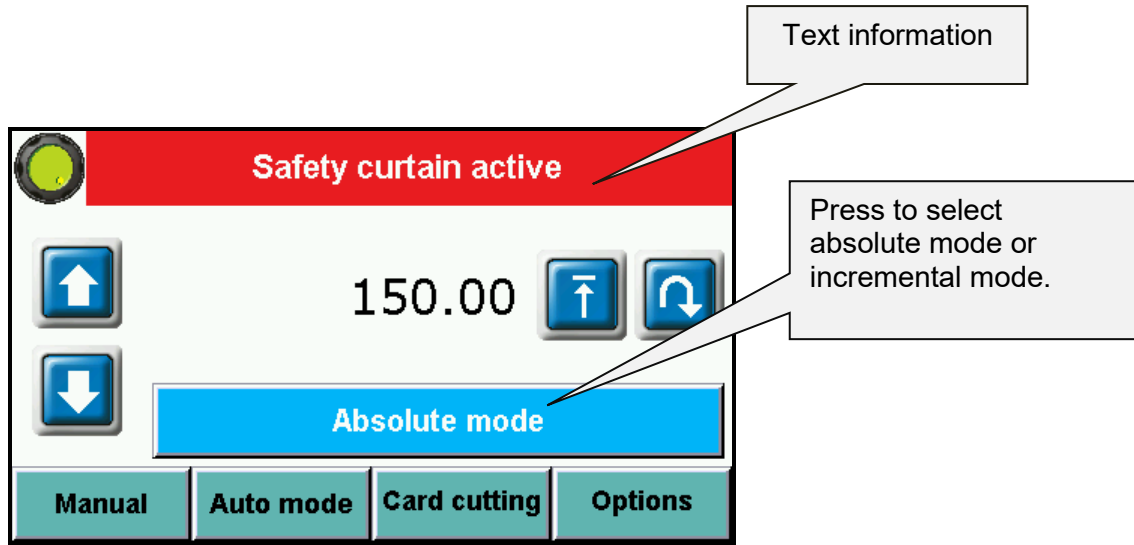
After turning of the machine the starting screen appears



- Please press green button on the screen to start machine control system.
- After pressing „**Press to calibrate**” machine starts the calibration.

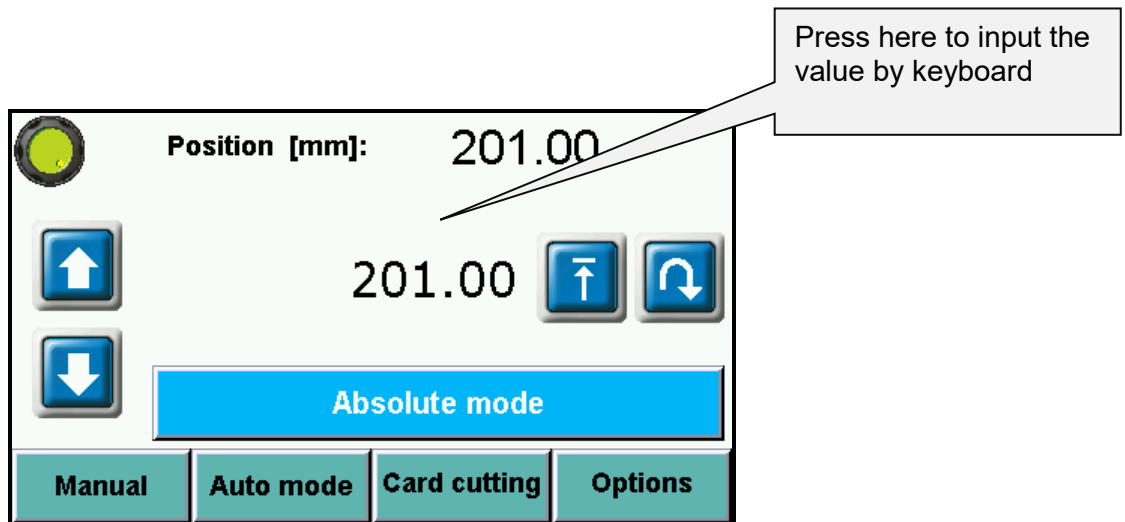
During the calibration backgauge moves to the maximum back position, then moves forward till the moment when calibration sensor will be detected. When the calibration is finished on the screen appears the manual mode.

2. MANUAL MODE



Available functions:

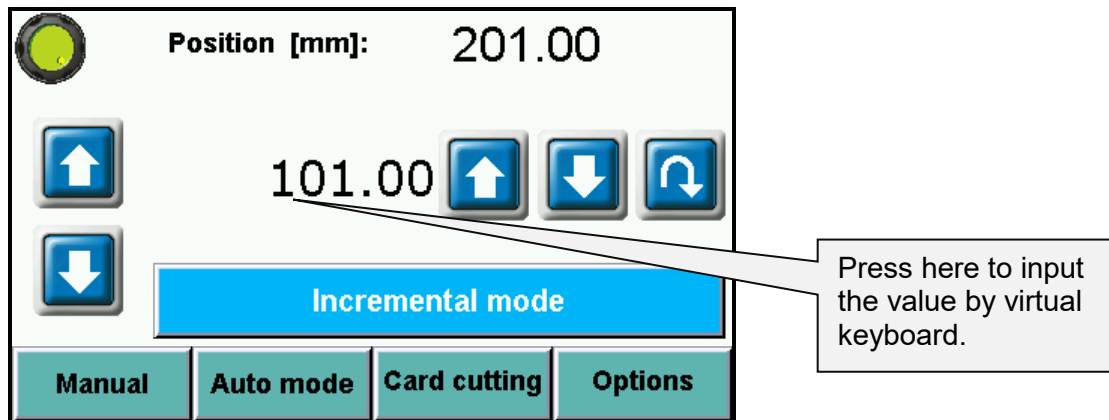
2.1 Absolute mode - Automatic move to input dimension




To input the required dimension press the dimension on screen and input value by keyboard.

Confirm by pressing button **ENT** and press . The backgauge will move to requested position

2.2 Incremental mode - Repeating same dimension on next steps



To multiple move of backgauge by same dimension (forwards or backwards) please input this dimension by pressing it on the screen.

Use virtual keyboard and confirm by pressing **ENT** and next by pressing button  Backgauge will automatically move into given position.


It is possible to repeat the move by pressing . Process can be repeated many times.

2.3 Manual Backgauge Movement

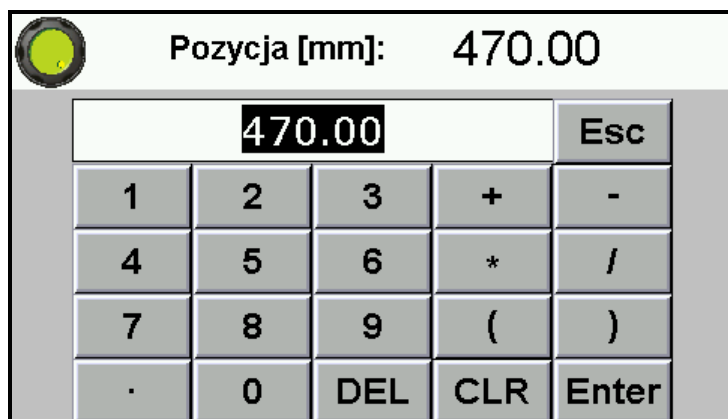
The backgauge can be moved manually forwards and backwards by pressing



2.4 Paper Eject

By pressing  button operator can remove the paper. The backgauge automatically move forwards by given value and returns to initial position.

2.5 Numerical Keyboard



Program module includes calculator function (multiplication, division, addition, subtraction and ()).

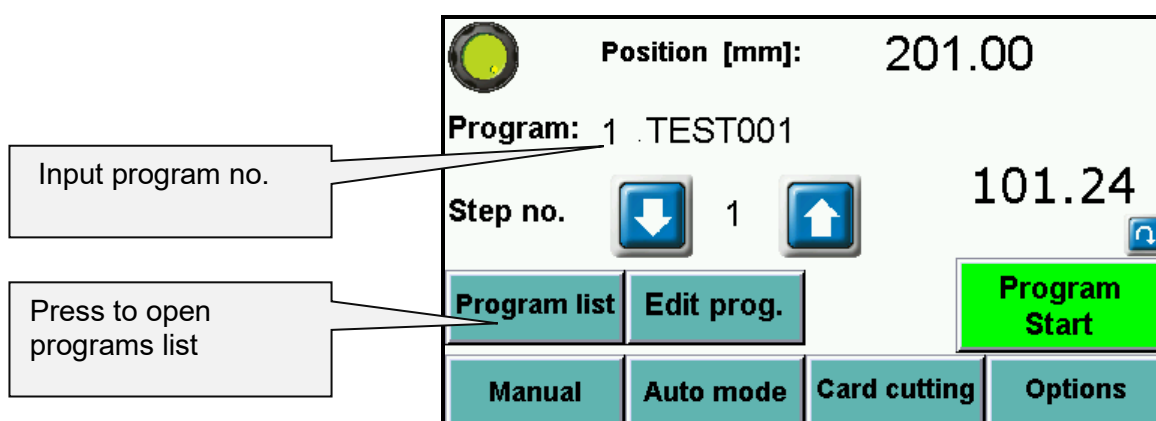
3. AUTO MODE- PROGRAMMING

This menu allows to select the program, edit and start program mode.

100 programs can be stored in memory, including 100 steps (dimensions) in each program.

For each step operator can program eject and paper rotation left, right.

3.1 Program selection



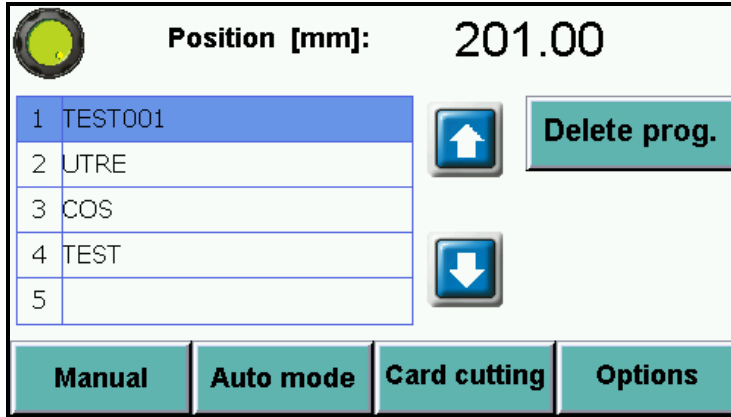
Selecting the program to edit or start.

Program can be selected from the list which appears on screen after pressing program name. Program can be also selected by arrows or input program no.

If you select saved program it is possible to check steps dimensions written in the program



(by using arrow buttons) and is the step has active functions: eject

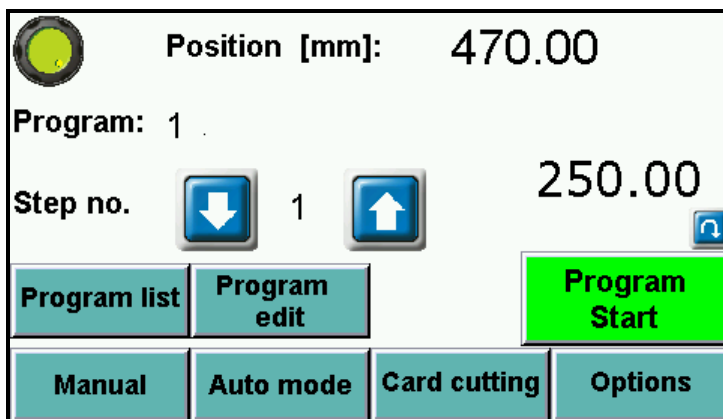


Sliding the program list can be done by pressing arrows next to the list.
Delete prog.- to delete all steps in the program

3.2 Launching program from memory.

To launch the program please select the requested program and press button **PROGRAM START**.

After pressing the backgauge moves to dimension saved in step 1 and new screen appears:

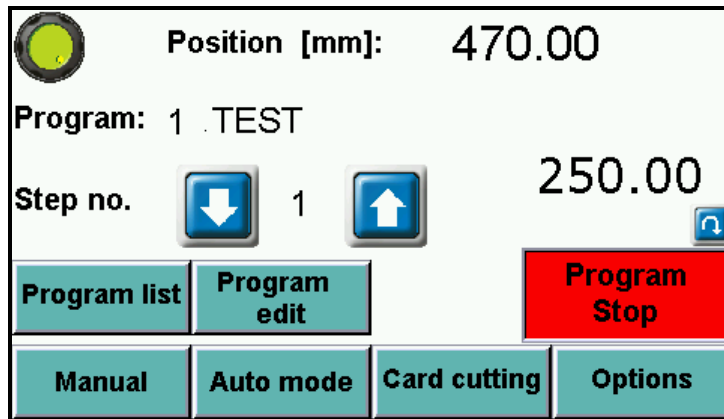


After each cut backgauge moves to next step. When last cut is made in selected program backgauge automatically moves to step 1 and program can be repeated.

It is possible to skip cut in step. Press button  to move backgauge to next step


without cut. Press button  to return backgauge to previous step.

To stop program please press button **PROGRAM STOP**.

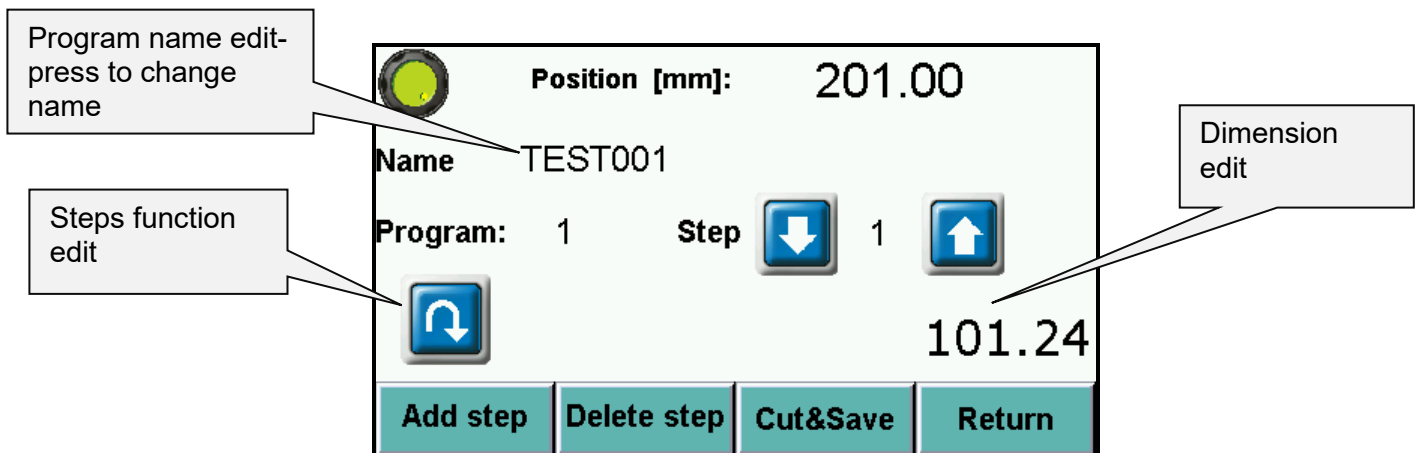


3.3 Program edit and saving.

By pressing button **Program Edit** operator can edit previous selected program. Dimension

change, program name change, step removing and turning on/off eject .

After selecting program no. i pressing button Program edit new screen appears:



To input new program name or change existing name press the window Name. Pressing opens keyboard screen which allows to input name.

To add special function to each step press the function icons. Then press dimension edit to input the dimension value. To confirm press **ENTER** button (automatically moves to next step).

Saving program to memory is done by exiting program edition (button return).

- Program reset - to delete all steps in the program
- Delete step - to delete one (current) step

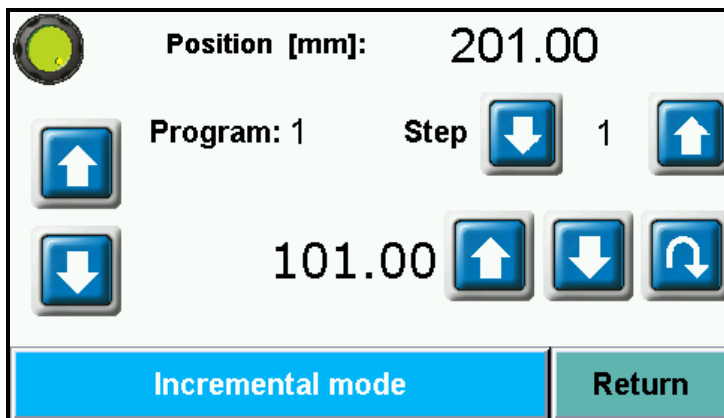
3.4 Cut & Save

Function allowing to edit program by making backagauge move and cut.

Pressing **Cut & Save** button activates screen allowing to move into dimension in manual mode, incremental mode or absolute mode.



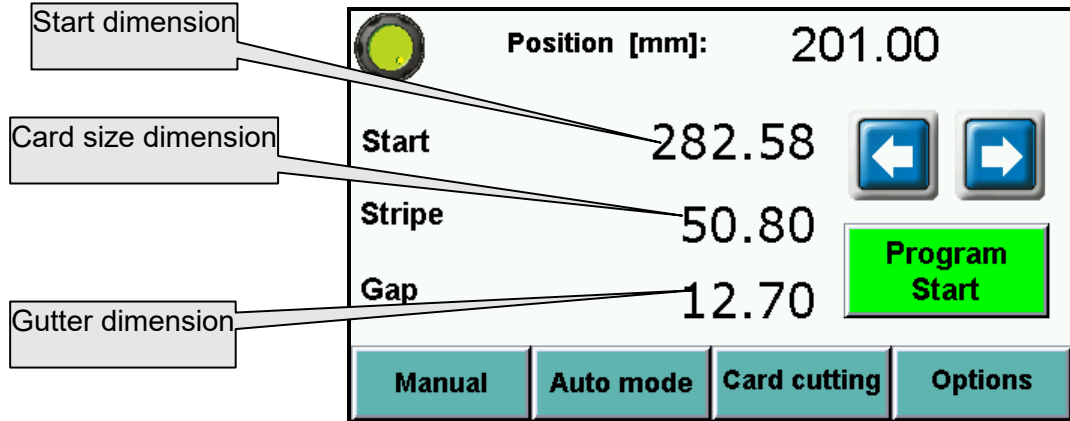
The dimension where cut was made is saved automatically as step dimension in current program. After each cut it automatically moves to next step.



To exit the program edit by making a cut press button Return to return to main menu.

4. CARD CUTTING

This program allows to make sequence of cuts with same distance (card size) or 2 changing dimensions (card size and gutter).



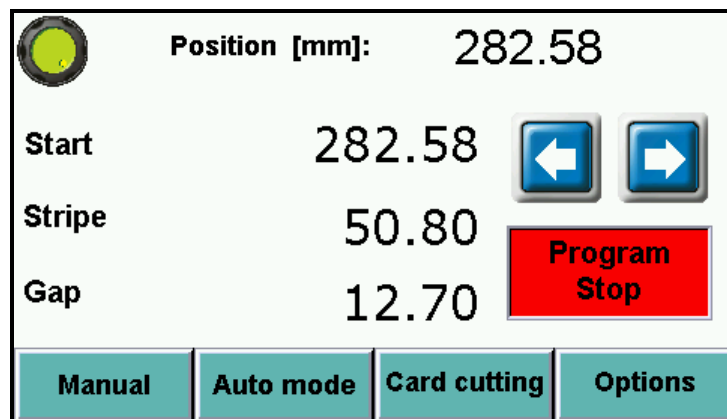
Start dimension -first cut dimension starting the card cutting sequence

Card dimension – dimension of stripe

Gutter – if having a gutter on the sheet , if there is no gutter input again card size


NOTE! Remember to confirm each value but pressing ENT.

After dimension input and pressing **Program Start** program starts automatically:



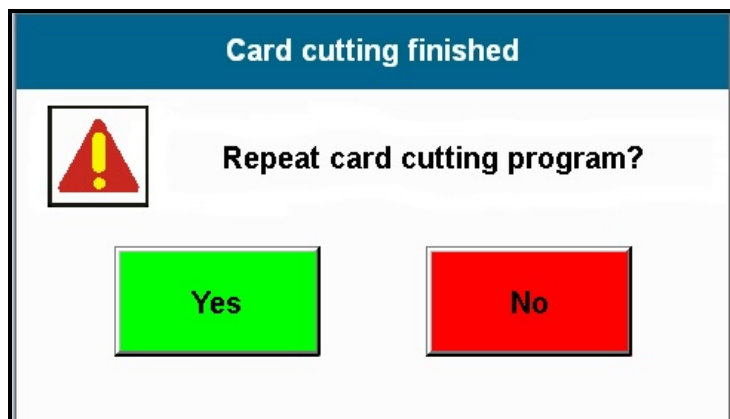
Backgauge moves into starting dimension and after each cut move automatically.

It is possible to skip cut in step. Press button  to move backgauge to next step without

cut. Press button  to return backgauge to previous step.

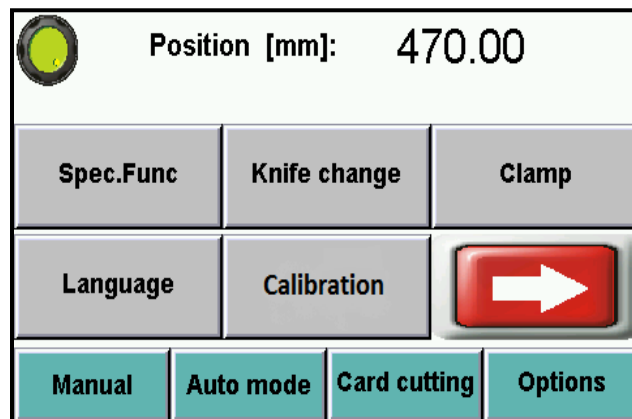
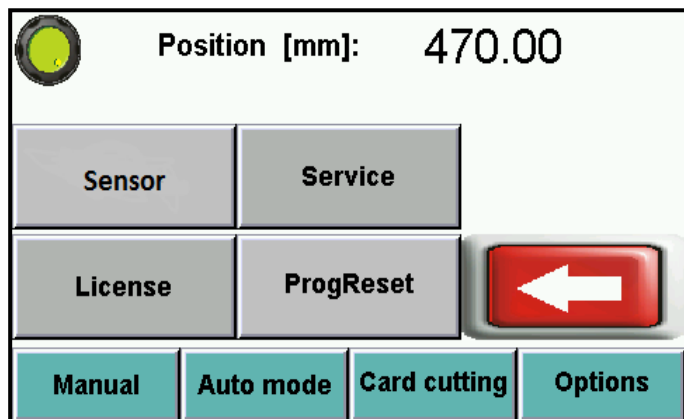
Pressing **Program Stop** stops card cutting program.

After each cycle when last stripe is too narrow to cut appears text:

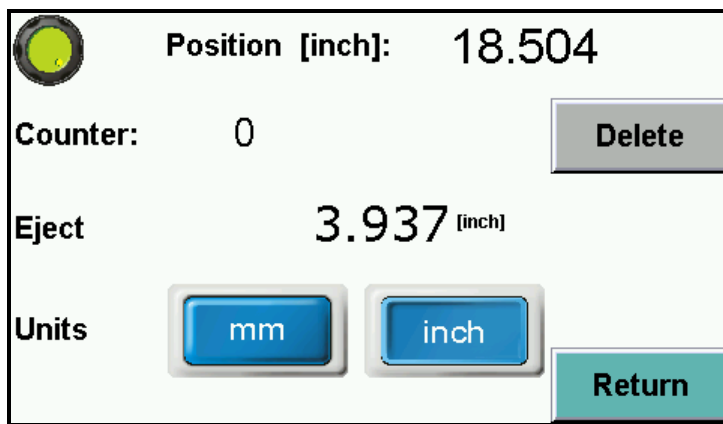
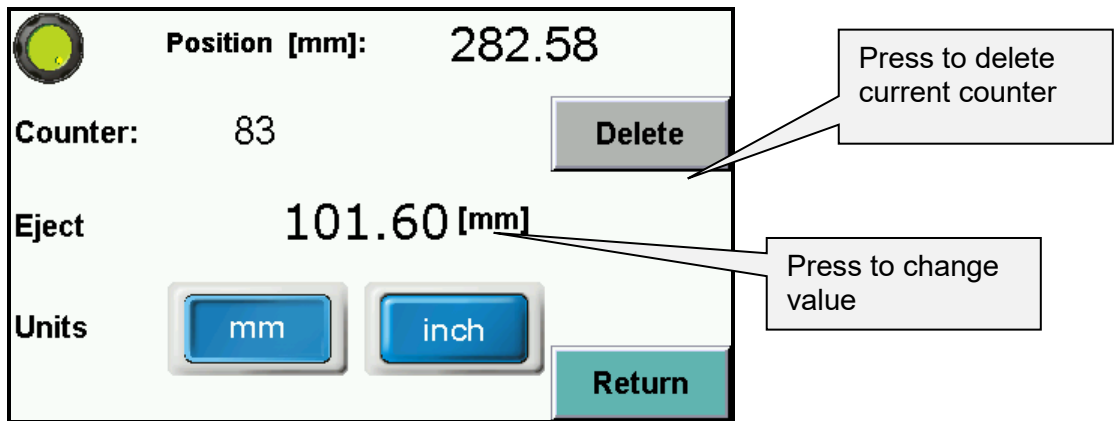


Pressing **YES** moves backgauge automatically into first dimension.
Pressing **NO** exits program.

5. OPTIONS



5.1 Options – special functions



Eject can be set in mm or inches. It is value by which paper ream moves forward. After cycle backgauge returns to previous position.

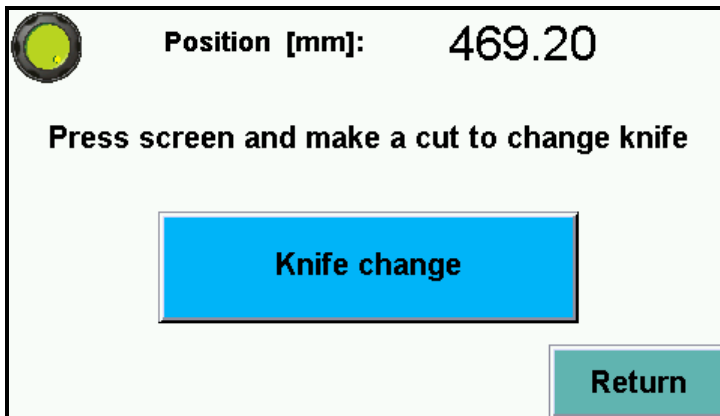
5.2 Options – Language

Enter language selection menu.

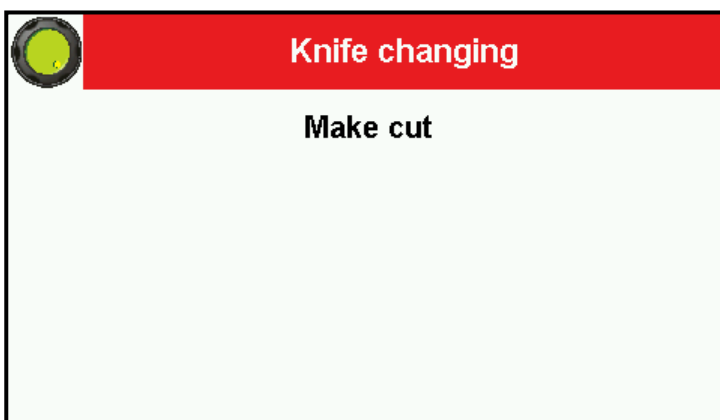
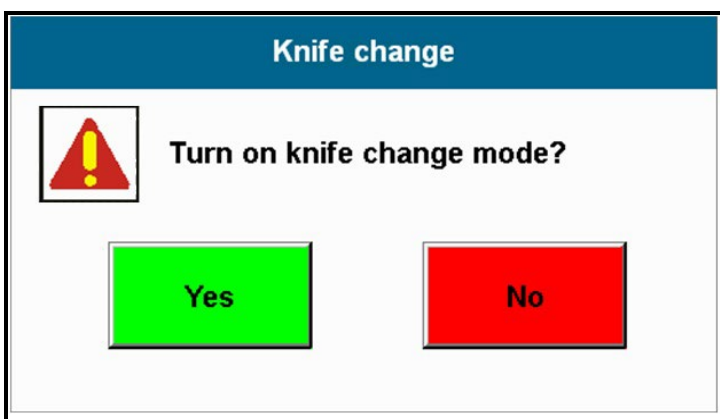


5.3 Options – Knife change

To enter knife change mode press button Knife change

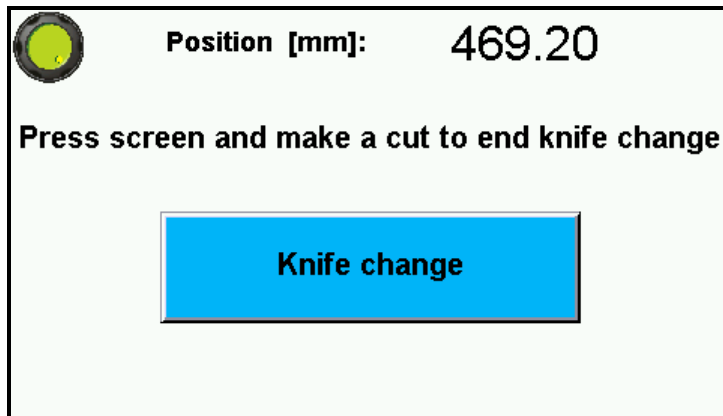


After pressing text on screen appears to confirm **Turn on knife change mode?**

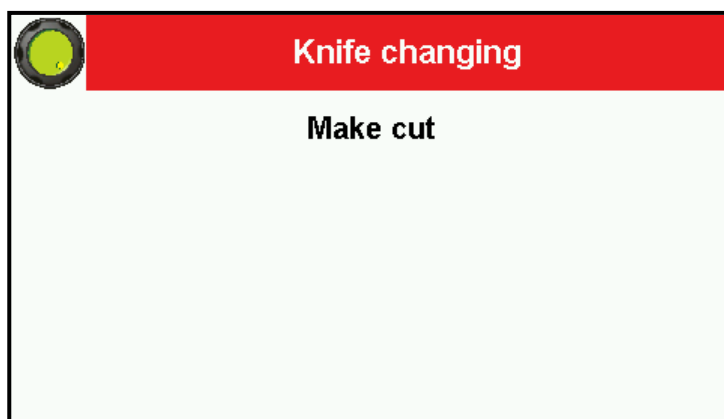
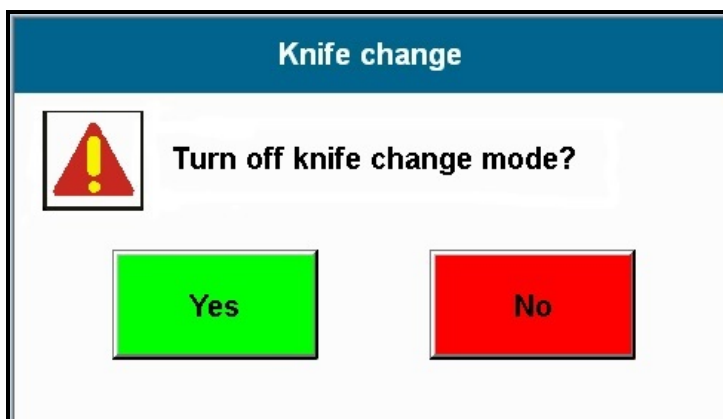


Confirm and make a cut to put knife into lower position.

After knife change (please look into guillotine manual for procedure) press again button **Knife change**.



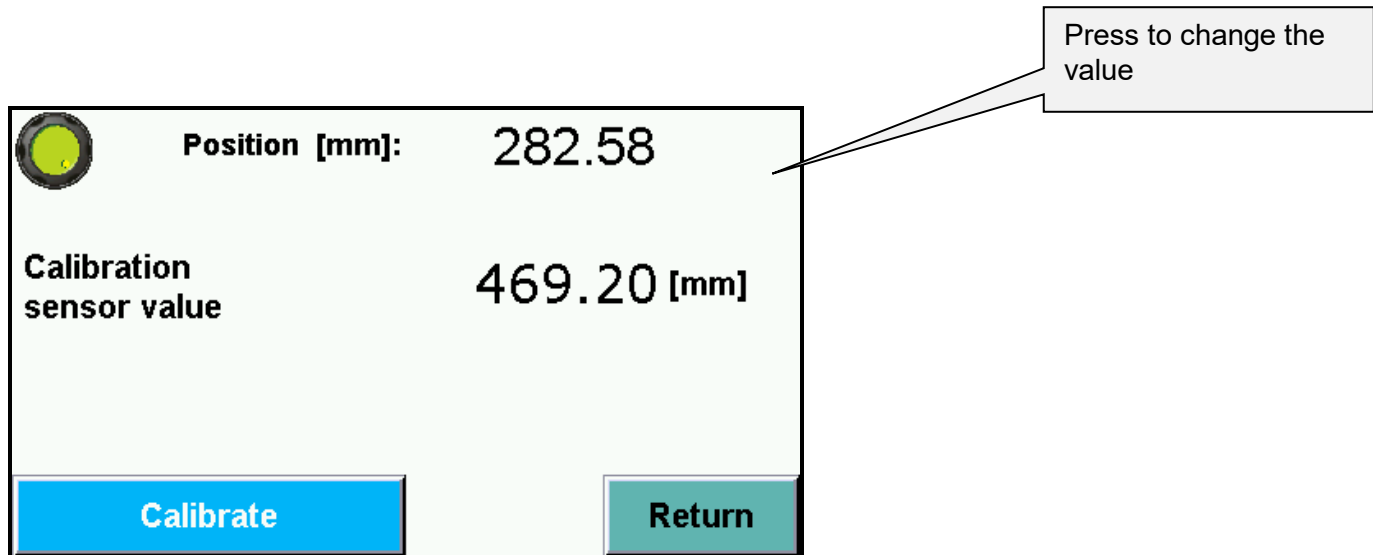
Text appears **Turn off knife change mode?** By pressing the mode is being closed.



Press Yes and make a cut to exit knife change mode.

5.4 Options - Calibration – Base dimension corr.

allows to redo calibration without turning off guillotine and optional correction of dimension (if display dimension does not correspond to real, measured dimension)



When starting machine operator should measure the paper cut and compare with actual display indication. If both dimensions do not correspond to each other input the base correction.

How to make base dimension adjustment:

- move backgauge into position ex. 100,0 mm
- cut paper
- measure the size
- if measured size is ex. 103,7 mm operator should change dimension by increasing the value (difference between screen and real size) 3,7mm in this example. (ex. if dimension is 680,0 mm change into 683,7mm).
- if measured dimension is 98,4 mm, please make correction by decreasing the value (difference between screen and real size) by 1,6 mm.

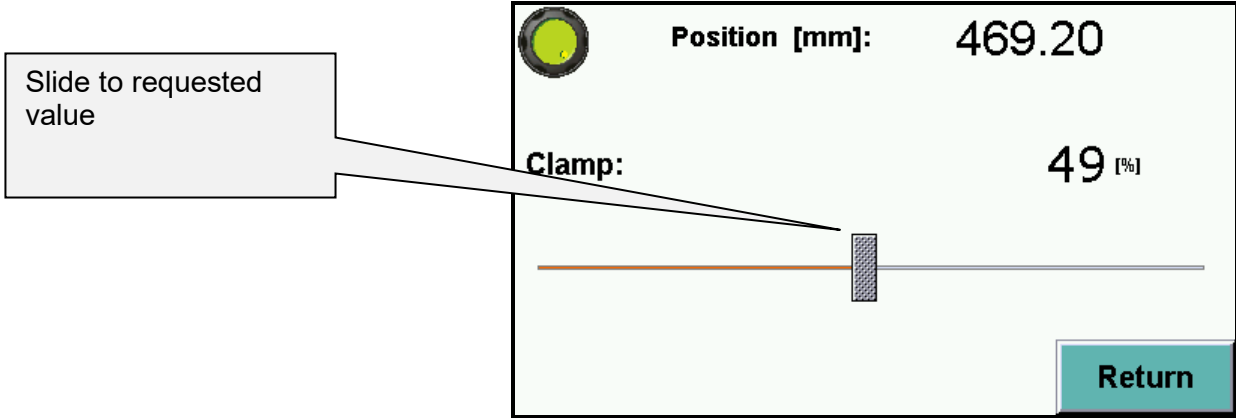
(ex. if dimension of base is 680,0 mm change value to 678,4 mm).

After base dimension change press button **Calibrate** to save adjustment.

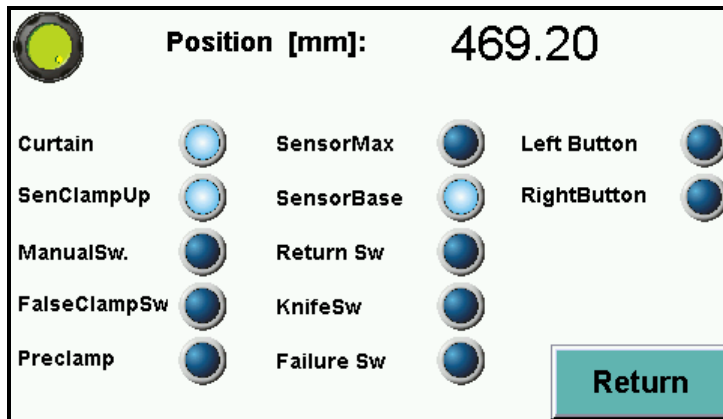
5.5 Options - Clamp adjustment on touch screen

The function allows to adjust clamp bar pressure (electronically) depending on material cut. To change the value use the slider on the touch screen and select values 0-100.

0 - minimum pressure **100** - maximum pressure



5.6 Options – Sensor - Diagnostics

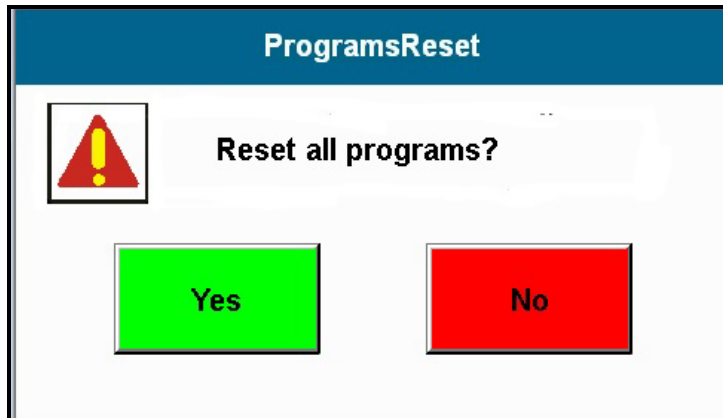


Allows operator to check control system elements like : optical sensors, limit switches, buttons, micro switches.

Back lighted button means that this element is active.

5.7 Options- Reset programs – program cancelling.

This options resets all saved programs.

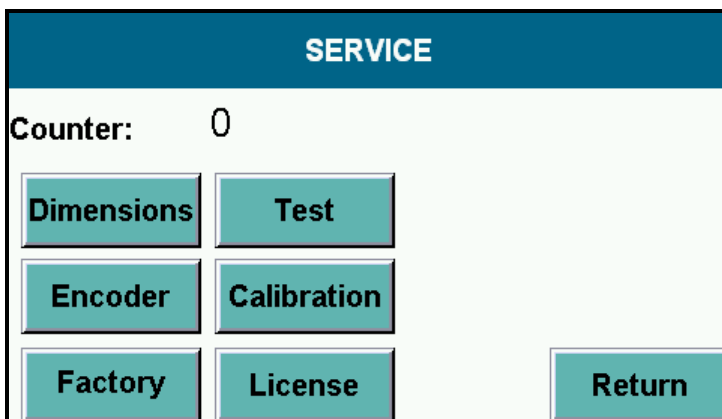


5.8 Options - Service – to enter service mode

Press **Service** button. Keyboard appears on screen to input service code XXXX and press **ENTER**.

*****				Esc
0	1	2	3	CLR
4	5	6	7	DEL
8	9	A	B	Enter
C	D	E	F	

NOTE! The code is for service information only



5.8.1 Options – SERVICE – dimensions.

Min dim.1	22.00	mm
Min dim.2	40.00	mm
Max dim.	520.00	mm

Return

- **Min. dim. 1** – min. value for guillotine backgauge automatic move in program mode (with false clamp)
- **Min. dim. 2** – min. value for guillotine backgauge automatic move in program mode (without false clamp)
- **Max. dim.** – max. value for guillotine backgauge automatic move in program mode

5.8.2 Options – Service – Encoder

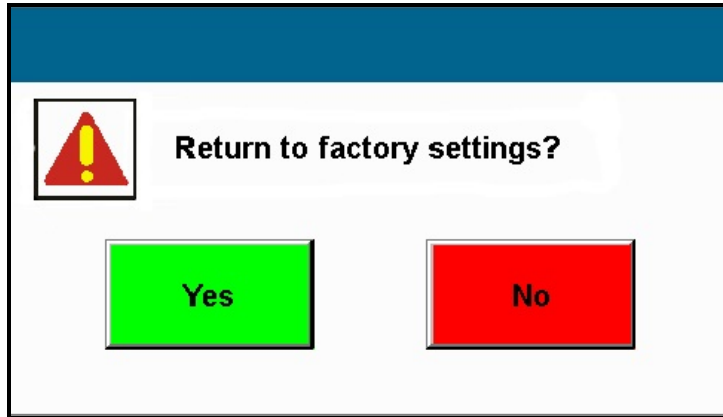
Screw rot.	5.00 mm/rot	
Encoder type	600.00 pls/rot	

Return

Screw rot. – mm by lead screw rotation (backgauge)
 Encoder type – impulses per rotation of encoder

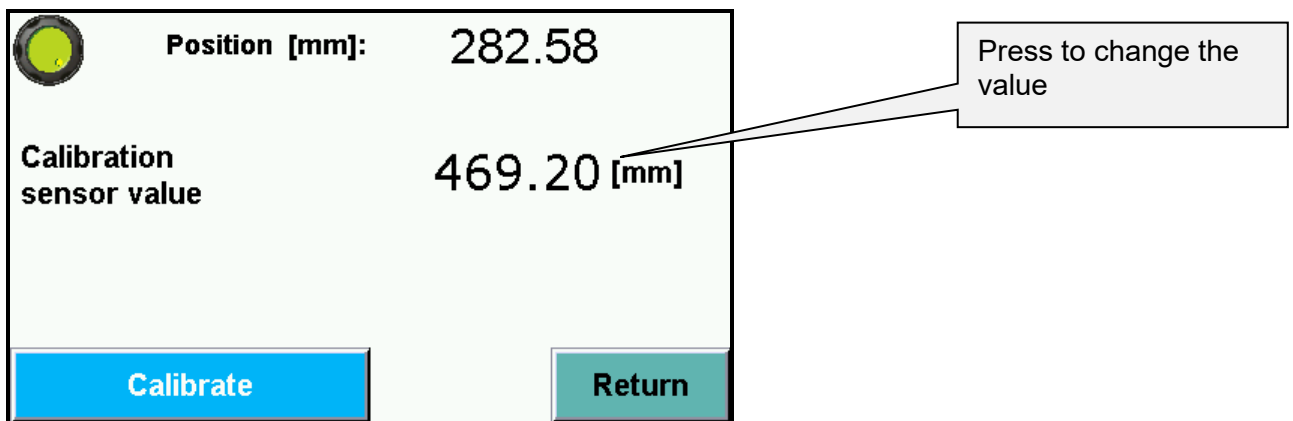
5.8.3 Options – Service – Factory settings

All parameters in windows **Dimension and Encoder** can be cancelled by function **Factory settings** (but may need readjustment depending on equipment in the machine).



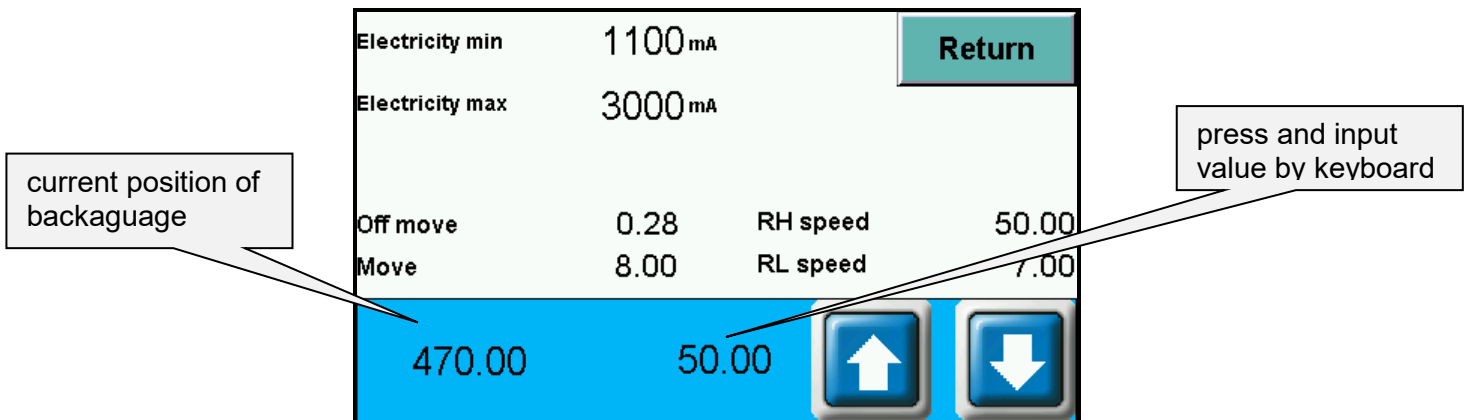
Press **Yes** to return to factory settings.

5.8.4 Options – Service – Calibration



Calibration – allows to repeat calibration without machine turn off and dimension correction if needed. (see 5.4 Calibration)

5.8.5 Options- Service – Test



- **Off move** –distance before dimension when backgauge drive is off
- **Move**– distance where fast backgauge movement is off before reaching position (how long backgauge moves slowly into dimension)
- **speed RH** – frequency of backgauge speed move
- **speed RL** – frequency of backgauge speed move on the dimension

In table **Position** first dimension is actual dimension of paper, second is dimension close to actual.