ORIGINAL MANUAL

INSTRUCTION MANUAL

BAND KNIFE MACHINE R750/R1000

DESCRIPTION - OPERATION – WITHDRAWAL FROM USE

EDITION 1 / 2019

1. KEY PRINCIPLES OF MACHINE SAFETY

In this chapter there are rules that must be followed to ensure safe machine operation. If the information contained in this manual is unclear, please contact the distributor or manufacturer in order to get further explanations. Knowledge of content and adherence to these instructions is a prerequisite for safe and long-term operation of the machine. The manufacturer disclaims any responsibility for the consequences of failure to comply with these instructions.

Careless or improper operation of the machine may pose a threat to health or life!

1.1. SIGNAL WORDS, SAFETY SYMBOLS, SIGNS, LABELS AND THEIR MEANINGS

⚠ DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates information considered important but not hazard related.

SAFETY SYMBOLS, SIGNS AND THEIR MEANING

	This warning sign is used to indicate risk of electric shock
	This warning sign is used to indicate crushing of hands
	This warning sign is used to indicate counter rotating rollers
	This warning sign is used to indicate sharp elements
	This warning sign is used to indicate hot surface
	This warning sign is used to indicate mind your head

This warning sign is used to indicate overhead load

This warning sign is used to indicate forklift trucks and other industrial vehicles

This warning sign is used to indicate falling objects

This warning sign is general warning sign

This notice sign indicates refer to instruction manual / booklet

This notice sign indicates minimum protection requirements which must be worn: ear protection

This notice sign indicates minimum protection requirements which must be worn: protective clothing

This notice sign indicates minimum protection requirements which must be worn: hand protection

This notice sign indicates minimum protection requirements which must be worn: head protection

This notice sign indicates to disconnect before carrying out maintenance or repair

This notice sign indicates to use handrail

This notice sign indicates minimum protection requirements which must be worn: protective footwear

1.2. MACHINE INTENDED USE, MISUSE OR ABNORMAL USE

⚠ WARNING

Band knife machine can be operated only according to this instruction manual. In particular it is recommended to read and understand the following chapters:

6.1 Machine intended use, **p. 42,**

7.8 Machine misuse and abnormal use, **p. 49.**

⚠ WARNING

Machine Band knife machine can be operated only by qualified and trained personnel. In particular it is recommended to read and understand the following chapter:

2.11 Target group and machine potential users , **p. 29.**

1.3. UNUSUAL POTENTIAL RISKS

⚠ DANGER

Before starting work, each operator should read the instruction manual. In particular it is recommended to read and understand the following chapter:

6. Information regarding machine use, **p. 42.**

DANGER

WARNING!!!
When transporting the machine never move around the load being suspended!
Never go under suspended machine parts!
When transporting the machine on belts, pay attention to the suspended elements of the transported machine.
Pay attention to the possible consequences of the fall of the load!
Use appropriate protective clothing.
Risk of being hit by a suspended part of the machine.
Risk of falling of the suspended machine parts.

DANGER

WARNING!!!
Before working with the machine read chapter :
6.2. Before the first start up, p**. 42,**
6.4. Necessary steps before normal start-up, p**. 43.**

Uncontrolled machine operation may occur if unsuitable machine parts are used, which may result in unpredictable machine reactions.

DANGER

WARNING!!!
The machine cannot be used in an explosion hazardous environments.

WARNING

It is recommended to always analyze the hazards connected with the location of the machine, take into account the risk of tripping, slipping or hitting against the machine components. It is necessary to limit the possibility of accidents by using non-slip floors, protective footwear with a sole that provides good grip and procedures related to the way the floor is cleaned around and under the machine.

Risk of tripping, slipping or hitting against the machine components.

WARNING

WARNING!!!
Incorrect connection of safety systems may result in unexpected risks.

WARNING!!!
The manufacturer is not responsible for the consequences of a failure to properly connect the machine control and safety systems.

⚠ WARNING

WARNING!!!
Check the electrical documentation before connecting the machine to power.

⚠ WARNING

WARNING!!!
The power cables are supplied with the machine.

Only use the power cables provided for their intended purpose.

⚠ CAUTION

WARNING!!!
Pay attention to the differences in personal protective equipment at all stages of the life of the machine. The recommended protective clothing in one phase may be unacceptable in others.

⚠ CAUTION

WARNING!!!
Never treat any materials other than those specified in the specification of the machine.

DANGER

WARNING!!!
In the case of condensation of liquid vapors inside the machine, on its surface or in its immediate vicinity, there is a risk of electric shock.

WARNING!!!
There is a risk of ignition or explosion if there is dust, liquid or gaseous combustibles inside the machine.
The machine is not designed be used in an explosion hazardous environments.

Clean the machine thoroughly before switching it ON!!!

DANGER

WARNING!!!
It is forbidden to use a machine showing signs of damage.

DANGER

WARNING!!!
Never check for power cables and other electrical cables if there is a suspicion that the cables may be connected to the power.
Risk of electric shock.

DANGER

WARNING!!!
Never work on the machine if it is found that it does not meet the requirements of this manual.

DANGER

WARNING!!!
Never change the machine settings, especially the electric drive elements. Risk related to the change in the way components work.

DANGER

WARNING!!!
All other ways of using the machine that are not indicated in this manual are incorrect or forbidden.
Take care when working with the machine.
An unspecified risk!

DANGER

WARNING!!!
Never change or install any machine elements, in particular those responsible for safety, ie. covers, locks (magnetic safety switches), emergency stop buttons and others.

Modification of the machine can lead to serious risks!

Any changes to the machine without the risk awareness causes a serious threat to life and property. All consequences of such actions will not be covered by warranty and service support.

DANGER

WARNING!!!
Never attempt to perform repairs without sufficient knowledge, skills, qualifications and training.

In the absence of sufficient knowledge, skills, qualifications and training, contact the machine manufacturer's service or machine manufacturer.

Unauthorized repair personnel are exposed to an unspecified risk.
In case when repair is carried out improperly, an unspecified risk may appear.

DANGER

WARNING!!!
In the event of damage to any of the machine components, it is forbidden to work on the machine!

DANGER

WARNING!!!
In case of fire, if possible, first of all turn off the machine using the main switch.

DANGER

WARNING!!!
In the event of a fire follow the instructions that are given below:
- warn the persons located within the danger zone,
- turn the machine power OFF,
- alert the fire brigade,
- notify the relevant company services.

DANGER

WARNING!!!
Never work on a machine with a malfunctioning safety system.
WARNING!!!
If the safety door switches and / or the emergency stop buttons and / or the drive motor brake are not initiated during the safety system check, stop working with the machine immediately.

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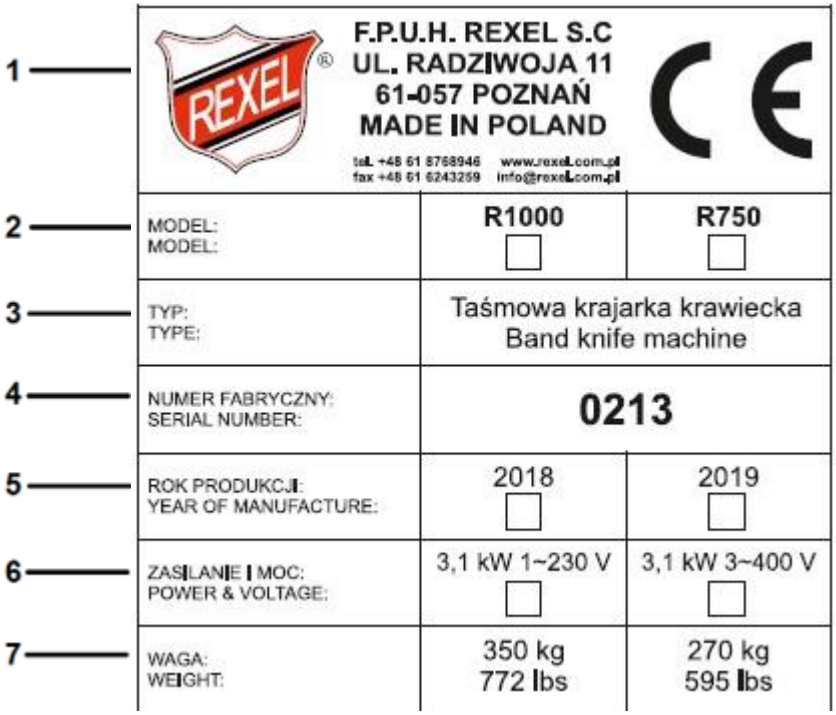
2. INTRODUCTION

2.1. MACHINE MANUFACTURER

F.P.U.H. Rexel s.c. Sławomir Jaśkowiak Aneta Jaśkowiak
ul. Radziwoja 11,
61-057 Poznań,
Poland
tel.: +48 61 87 68 946
e-mail.: info@rexelpoland.com
www.rexelpoland.com

2.2. MACHINE SERIAL NUMBER PLATE



1	F.P.U.H. REXEL S.C UL. RADZIWOJA 11 61-057 POZNAŃ MADE IN POLAND tel. +48 61 8768946 www.rexel.com.pl fax +48 61 6243259 info@rexel.com.pl		
2	MODEL: MODEL:	R1000 ☐	R750 ☐
3	TYP: TYPE:	Taśmowa krajarka krawiecka Band knife machine	
4	NUMER FABRYCZNY: SERIAL NUMBER:	0213	
5	ROK PRODUKCJI: YEAR OF MANUFACTURE:	2018 ☐	2019 ☐
6	ZASILANIE I MOC: POWER & VOLTAGE:	3,1 kW 1~230 V ☐	3,1 kW 3~400 V ☐
7	WAGA: WEIGHT:	350 kg 772 lbs	270 kg 595 lbs

The serial number plate has the following information:

1) Logo, name, address of the manufacturer, phone, website and CE mark.

2) Machine model.

3) Type of machine.

4) Serial number.

5) Year.

6) Power and voltage.

7) Weight.

2.3. PURPOSE OF THIS MANUAL

This manual contains the information required for the correct and safe use of the BAND KNIFE MACHINE. Detailed information on use, service, and maintenance as well as on possible hazards in all phases of its operation are presented here. One has to read the manual carefully and understand it before working on the machine.

ATTENTION! This manual is an integral part of the machine and should be used before, during and after the machine start-up, as well as in all phases of its operation. Always follow the instructions given in this manual.

According to current standards, the manual is an important part of the machine. Therefore, it must always be available for inspection until the machine is disposed of.

The manual includes instructions regarding the machine in all phases of its life from the moment it is placed on the market until its withdrawal from use.

2.4. QUESTIONS, COMMENTS AND SUGGESTIONS FOR ORIGINAL MANUAL

In case of questions or ambiguities during all phases of the machine's use, please report them as soon as possible to the machine manufacturer F.P.U.H. Rexel s.c.

2.5. STRUCTURE OF THE MANUAL

The manual is divided into many chapters that will help one to gradually become familiar with the device or machine presented here.

2.6. COPYRIGHT

2.7. LEGAL RESPONSIBILITY

The manufacturer is not responsible for the machine's defects and the damage caused by them, if at the time of sale, the condition of the available technology and knowledge did not allow to predict their occurrence. The manufacturer is also released from liability for defects and damages were caused by applying the applicable legal norms.

It forbidden to use a foreign, not approved by the company F.P.U.H. Rexel s.c. tools and incompatible materials, making changes to the machine and its components.

Failure to comply with this rule equals with taking over the responsibility for any damage related to the use of the machine, including consequential damages.

2.8. WARRANTY

The parts made and installed by the manufacturer have a warranty for a period of 12 months from the date of commissioning the equipment at the recipient's plant, provided that it is used for its intended purpose, and that the operating instructions issued by the manufacturer are observed. The warranty covers making repairs or replacing, at the discretion of the manufacturer, defective or defective parts. During the period covered by the manufacturer's

warranty, repairs and modifications made without the agreement and consent of the manufacturer are not permitted. Failure to meet the above conditions will automatically void the warranty.

2.8.1. Scope of application

1. General Terms of Warranty (further GTW) are an integral part of sales contracts and related service contracts concluded between the company Rexel and the buyers of its products, in so far as these agreements do not provide otherwise. Used in the following part of these GTW mean:

- "Guarantor" - FPUH REXEL s.c. Sławomir Jaśkowiak, Aneta Jaśkowiak, ul. Radziwoja 11, 61-057 Poznań, VAT: PL 782-207-54-01
- "Buyer" - the contractor performing the Guarantor of purchasing products or services. GTW This only applies to contractors (Art. [1]k.c 43.) Who are not consumers within the meaning of Article. 22 of the Civil Code of Poland.
- "Parties" - the Guarantor and the Purchaser
- "GTW" - these General Terms and Conditions warranty of REXEL.
- "Product" - products, goods and services which are the subject of economic activity and in this respect the Guarantor under the warranty on Polish territory.
- "Carrier" - a courier, forwarding and transportation company
- "Warehouse" - the magazine of the Seller located at the seat of the Seller.

1.2 The parties exclude the application of templates Buyer (in particular, the general warranty conditions and model contracts, regulations).

1.3 According to the GTW Guarantor grants warranty on all products sold by itself, ensures the smooth operation of the Products offered on the condition of using them as intended and conditions of use specified in the documentation.

1.4 Direct warranty claims in relation to the Guarantor may submit only buyer who purchased the product from the Guarantor. In other cases, a warranty claim must be submitted to the place of purchase of the Product.

2.8.2. Warranty period

1. The warranty period for products offered by the Guarantor shall be counted from the date of sale and shall be 12 months.

2. Guarantor grants a warranty for the period specified above based on the invoice or receipt confirming the sale of the Product. On request, the Guarantor will issue the customer a warranty card.

2.8.3. Scope of warranty

1. Guarantor grants warranty on all products sold by itself, ensures the smooth operation of our products provided to use them for the intended purpose and conditions of use specified in the documentation.

2. During the period of the warranty the Guarantor is obliged to provide free replacement parts or repair the defective product. If the guarantor determines that repair of the Product is not possible or cost of repair of the device is disproportionately high in relation to the price of the new device is obliged to replace the product free from defects.

3. In respect of the warranty or warrant any third party guarantor is not entitled to claim for compensation for any damage caused by the failure of the Product. The only obligation of the Guarantor under this warranty is to provide spare parts or repair or replace the Product free of defects in accordance with the terms of this warranty.

4. The Guarantor is liable to the Buyer only for defects resulting from causes inherent in the sold Product. The warranty does not cover faults resulting from other causes, and especially due to:

- external factors: mechanical damage, thermal, chemical flooding, excessive dirt, etc .;
- installation, and operation for its intended purpose specified in the catalogue and / or the operation manual;
- use of the Product in conditions not specified in the instruction and / or the operation manual (ie. max / min Temperature zones, explosive, corrosive environments, etc.).
- installation design errors, improper selection of the Product;
- connection Product by persons not having the appropriate permissions to connect product in accordance with the wiring diagram, Product supply voltage other than specified on the nameplate and / or operation manual Product;

- use of the product for its intended purpose and / or engineering;
- lack of complying with the requirements of the operation manual and / or directory Rexel security;
- incorrect installation, maintenance, storage and transport of Product;
- product failures due to use of non-original or inconsistent with the manufacturer of accessories and materials;
- damage resulting from random events, agents exhibiting characteristics of a force majeure (fire, flood, lightning, etc.).
- malfunctioning of other systems (e.g.,. Electricity, heat, etc.) and / or equipment relevant to the product (eg. Inverters, relays).

5. The warranty does not cover parts subject to normal wear and spare parts and consumables, such as filters, light bulbs, fuses, batteries, belts, grease, oil, sharpening stones, bands etc.

6. Product Warranty does not cover, on the basis of the documents submitted and rated the product characteristics cannot be identified as a Product purchased from the Guarantor and / or the product is not holding the nameplate of the Guarantor.

7. Warranty covers product purchased from the Guarantor or its sales network subject to the timely payment by the Buyer for the product. In case of delayed payment of due process warranty for the product shall be suspended until paid in full.

2.8.4. Warranty loss

1. The buyer loses warranty rights on the products if it is found:

- any modification of the Product;
- interference with the product by unauthorized persons;
- any attempt to repair the Product performed by unauthorized persons;
- failure to comply with the obligation to make regular maintenance if they are required;
- failure to make a payment for the product more than 90 days from the due date of the invoice;

2. The statements by the Guarantor occurrence causes specified in § 2 and § 3 is the basis for the complaint is not Product. In the event the complaint is not advertised product will be returned to the claimant at his written request, subject to prior cover shipping costs Product "to" and "from" Guarantor service.

3. Unclaimed goods referred to in paragraph 3 points. 2 after a period of 60 days will be automatically recovered.

2.8.5. Registration and warranty procedure

1. The basis of acceptance of the complaint for consideration is the total fulfillment of the following conditions:

- in written form or by fax or e-mail complaint by the Buyer on the appropriate form Rexel including: name of the product, catalog number, purchase date, no warranty card, a detailed description of the damage, along with additional information about the creation of product defects and pictures of the defective product;
- presentation of the original invoice or receipt purchase the advertised product;
- show protocol boot device as long as required by OPERATION MANUAL Product;
- personal delivery or via Carrier advertised product to the Guarantor (applies to devices of mini-type axial fans, roof, channel controllers, etc.), or access to any request Guarantor access to large appliances (eg. air handling units) at the point of installation.

2. Product Defects or damage revealed during the warranty period should be reported immediately to the Guarantor, not later than 7 days from the date of disclosure.

3. The product, which stated defect should be immediately removed from service under loss of warranty.

4. The guarantor undertakes to perform warranty service within 14 days of receipt of the notification in accordance with paragraph point 4. 1 and 2, in the case of small-sized devices, referred to in point. 4 section 6, within 14 days from the date of delivery to the service of the Guarantor.

5. In the case of Product unusual, imported or produced on an individual order of the Buyer, in particular Product with specific parameters or properties (eg. Machine smoke, chemical resistant, explosion-proof, high temperature, etc.) To which repairs are necessary specialized parts, the Guarantor reserves the right to extend the warranty period of performance for the period necessary to bring in and / or produce above parts, but not longer than 90 days.

6. The devices must be small-size after determining the Guarantor send to his address, the shipping costs and risks borne by the Buyer. Recognition of warranty Buyer will be synonymous with the repair or replacement of the

Product free of defects and return shipping costs incurred by the Buyer according to the rates in force at the transport company Rexel.

7. The place of performance referred to in point. 4 paragraph. 6 is considered a resident of the Guarantor. The buyer or carrier is responsible for the proper packaging and delivery of the Product to the Guarantor.

8. Warranty covers only finished products, fit for service verification, free from defects and mechanical damage resulting from external factors.

9. In the case of large appliances Guarantor will send its service in the place of installation of the Product the purpose of diagnosis and / or repair of the Product. In cases of unjustified service call buyer will be charged for the travel and maintenance services according to the rates of the Guarantor service.

10. In the case of maintenance of the Product at his place of assembly Buyer is obliged to provide free access to the Product and enable the Guarantor safe service procedure in accordance with all safety rules in particular provide the necessary increases (platforms, ladders, scaffolding), the corresponding site preparation service (cover from the rain, removing snow, ice removal, etc.), the appropriate technical capabilities (access to sources of supply, safety switches, etc.). Otherwise, the technician has the right to refuse service activities.

11. Products sent to the address of the Guarantor at its expense and / or sent without the knowledge and approval of the Guarantor will not be accepted or will be accepted provided that the service procedure will not be activated until the return shipping costs incurred Guarantor of the Product within a deadline of 14 days.

12. The faulty product should be adequately protected during transport. Product delivery risk lies with the buyer. The guarantor is not liable for damage or damage in transport, in particular due to improper packaging or product protection by the Buyer.

13. Guarantor decides on the merits of a warranty claim, and the choice of how to implement the recognized warranty claims.

14. Replaced products become the property of the Guarantor.

15. Guarantor reserves the right to charge the Buyer handling costs associated with conducting the expertise of the Product if the advertised product will be proficient or damage was not covered by the warranty.

16. Guarantor reserves the right to conduct a site visit at the installation location of the Product.

17. Guarantor reserves the right to suspend the warranty process if the buyer has due invoices for longer than 7 days.

18. In the case of repair Product duration of the warranty period is extended by the malfunction of the Product. In the case of replacement of such product, the product is covered by a new WARRANTY of the legal dimension begins upon delivery of the Product.

19. The Guarantor is not required to modernize or modify existing products on the market after the entry of newer versions.

20. This GTW exclude the liability of the Guarantor under the warranty for defects of things, the exemption does not apply to Purchasers who are consumers within the meaning of the Polish Civil Code.

21. In matters not covered by these rules are applicable provisions of the Polish Civil Code.

2.9. MACHINE COMPLIANCE WITH EC / EU DIRECTIVES

The machine complies with all relevant provisions of the Directives:

DIRECTIVE 2006/42 / EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006. On machinery, and amending Directive 95/16 / EC (recast) (Text with EEA relevance)

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 2014/30 / EU of 26 February 2014. On the harmonization of the laws of the Member States relating to electromagnetic compatibility (Recast) (Text with EEA relevance)

The references of the harmonized standards:

•	EN 1037: 1995 + A1: 2008	Safety of machinery - Prevention of unexpected start
•	EN ISO 12100: 2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
•	EN ISO 13849-1: 2015	Safety of machinery - related parts of control systems security - Part 1: General principles for design
•	EN ISO 13849-2: 2012	Safety of machinery - related parts of control systems security - Part 2: Validation
•	EN ISO 13850: 2015	Safety of machinery - emergency stop function - Principles for design
•	EN ISO 13857: 2008	Safety of machinery - Safety distances to prevent reaching the upper and lower limbs to danger zones
•	EN ISO 14119: 2013	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection
•	EN ISO 14120: 2015	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards
•	EN 14886: 2008	Used plastics and rubber - cutting knife belt of porous blocks - Safety
•	EN 60204-1: 2006	Safety of machinery - Electrical equipment of machines - Part 1: General requirements IEC 60204-1: 2005

2.10. CODES, DEFINITIONS, SPECIAL TERMS, ACRONYMS AND ABBREVIATIONS

This instruction manual contains special terms defining the people who may be in contact with the machine during all phases of its life and, therefore, it may affect their safety.

- Qualified personnel:

A group of people or a person (a qualified person, an operator) who has received appropriate technical education, underwent training or gained experience enabling the perception of risk and avoiding hazards during the use of the product.

- Qualified service personnel:

A group of people or a person (a qualified person) who has received appropriate technical education, underwent training or gained experience enabling perception of risk and avoiding hazards during repairs, maintenance and product inspection (a professional user).

- Outsider:

A person who is neither qualified nor trained.

- Machine user:

A natural or legal person who uses a machine. End user, belonging to qualified staff.

- Non-professional user:

A natural person, untrained, may not have the appropriate level of education and knowledge to use the machine, other employees of the company in which the machine is used, or outsiders.

2.11. TARGET GROUP AND MACHINE POTENTIAL USERS

This instruction manual applies to trained professional users and suitably qualified employees, responsible for maintaining the machine. The manual is not a training manual for users and maintenance staff.

Machine manual is targeted to:

- Machine owner,
- Qualified personnel,
- Qualified service personnel,
- Machine user.

The machine cannot be used by non-professional users, elderly people, children or people who cannot use it safely without supervision, people with disabilities. This manual cannot replace the user's relevant experience.

2.12. CONTENT PRESENTATION

To facilitate the use of the manual, it has been divided into chapters and sub-chapters.

The individual chapters present the necessary information on safe work with the machine during all its operational phases, from the start-up phase, transport, through normal operation to the withdrawal from use phase.

Tips for information presented in graphic form:

1.1 Signal words, safety symbols, signs, labels and their meanings p. 3

Important information is highlighted in bold text.

3. TRANSPORT AND STORAGE

At the time of transporting, the machine should be with tabletop disassembled form the machine body. When attaching equipment to the side of the vehicle by means of belts and rope stabilizers one should be avoid attachment around the band and band cover. Use for this purpose parts of the machine body. For transportation it is recommended to mount the individual elements on a pallet. When lifting the machine it is forbidden to cause permanent deformation of the support structures or other parts of the machine.

3.1. MACHINE TRANSPORT

The machine is transported in a crate placed on a special pallet or just on a special pallet.

Depending on the standard configuration of the machine, it consists of a body and working tabletop packaged in one crate. Loading and unloading is done by forklift.

3.2. MACHINE MANEUVRING AND UNPACKING

Machine transport to the final place at a work place can be done using a hand pallet truck or a forklift.

3.2.1. Crate

Crate is made of wood and wood-based materials must be disposed of according to the regulations in force in the country of purchase.

3.2.2. Pallet

The pallet is made of wood and wood-based materials must be disposed of according to the regulations in force in the country of purchase.

4. MACHINE SET UP

4.1. SETTING UP THE MACHINE

4.1.1. Machine assembly conditions

The machine is intended for use in a production plant. The machine should be operated in conditions of the production hall, at a temperature above 10 ° C, with a humidity not exceeding 70% without condensation. The floor should enable stable installation of the machine in the workplace and have adequate load capacity. It is recommended to install the machine on an industrial type of floor.

4.1.2. Required space for use and maintenance

The machine can only work in a place that provides freedom of movement for the operator. The space around the machine should be marked in accordance with the health and safety rules.

⚠ WARNING

It is recommended to always analyze the hazards connected with the location of the machine, take into account the risk of tripping, slipping or hitting against the machine components. It is necessary to limit the possibility of accidents by using non-slip floors, protective footwear with a sole that provides good grip and procedures related to the way the floor is cleaned around and under the machine.

Risk of tripping, slipping or hitting against the machine components.

4.1.3. Setting the machine body

After unpacking, the machine must be set up immediately on a previously prepared site with a forklift or a crane.

To ensure proper and safe operation, the machine must be set firmly so that all supports (7) (pic. 2, p. 34) underneath the machine and top are in contact with the floor. The floor surface should be free from cracks or defects which might pose a risk to the operator and/or damage the machine.

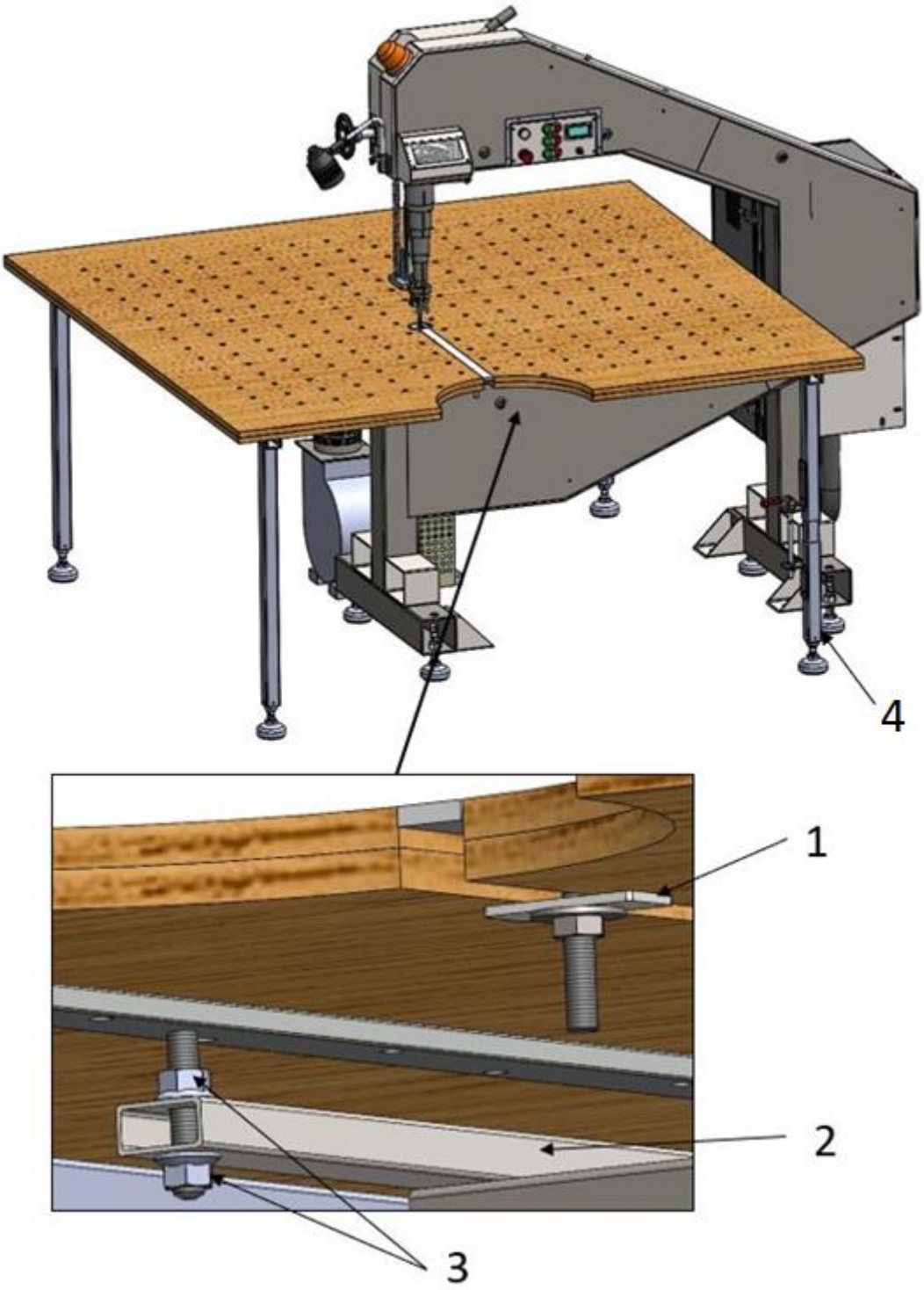
Turning the screws in supports helps to adjust the tabletop height to existing production line. At the same time it allows to set the table top in the most comfortable position. After the adjustment, all screws and nuts on the supports must be tightened and locked. Setting the band knife body must be done before installing the tabletop and its supports.

4.1.4. Setting the tabletop

Cutting accuracy of the material depends on the perpendicular arrangement of the tabletop and the cutting band. This adjustment is made by manufacturer but further minor adjustments may be needed.

Mount the tabletop as on the instructions below:

- carefully unpack the tabletop
- remove washer plates (1) (pic.1)
- raise the band cover 12 (pic.2 p.38) turning the wheel (11) until it stops in its highest position
- carefully place the tabletop onto the supports (2), check if the tabletop surface is properly levelled comparing to the bottom knife guide. In case it is not levelled properly one has to adjust using nuts (3)
- install legs using bolts M8, making sure that the leg with red handle (4) has to be in the front right part of the table (see pic.1).
- after all leg supports were assembled make sure to tighten all bolts



Pic.1 Tabletop set up

4.1.5. Connecting the machine to the power source

The machine must be powered from the mains of single-phase or three-phase 230/400 VAC. A minimum three-wire installation is required for 230V 50Hz and for a 400V, three-phase five-wire system.

⚠ WARNING

WARNING!!!
The power cables are supplied with the machine.

Only use the power cables provided for their intended purpose.

Pay special attention to the cables placed on the floor due to the risk of damage and the possibility of tripping the operator or other people working within the machine. It is recommended to prepare power sockets in the immediate vicinity of the machine or to put wires in marked covers on the floor limiting the possibility of tripping.

4.1.6. Installation of accessories (additional equipment)

To the machine one can mount measuring stop PR-3 that facilitates cutting upholstery foam on the straight sections.

Installation, removal and use described in the manual of the PR-3.

4.1.7. Waste management and packaging disposal

All waste generated during assembly and commissioning of the machine must be disposed of in accordance with local applicable regulations and packaging manufacturers' recommendations.

Packaging materials containing wood, cardboard, plastics (VCI, PE and PP film) and banding tapes (PET) have to be also recycled after sorting.

4.1.8. Recommended protective measures during machine installation and commissioning

⚠ CAUTION

WARNING!!!
Pay attention to the differences in personal protective equipment at all stages of the life of the machine. The recommended protective clothing in one phase may be unacceptable in others.

The table below lists the personal protective equipment that should be used during the transport, installation and commissioning.

No.	**Recommended protective measures during machine installation and commissioning**
1.	Protective helmet
2.	Hearing protection
3.	Protective gloves
4	General protective clothing fitted without loosely hanging elements
5.	Protective footwear (puncture resistant and steel-capped)
6.	Protective eyewear

5. MACHINE GENERAL DESCRIPTION

5.1. MACHINE WORK PRINCIPLE DESCRIPTION, PURPOSE AND PRINCIPLE OF OPERATION

Band knife machine R750/R1000 is a vertical type cutter with a band body of the type “A”. The design of the machine is stationary.

Electric motor-driven cutting blade is in the form of a band that runs along the fixed path guided by wheels, upper and lower guide. The speed of movement of the knife is adjustable. The path of the knife movement in the machine is constant.

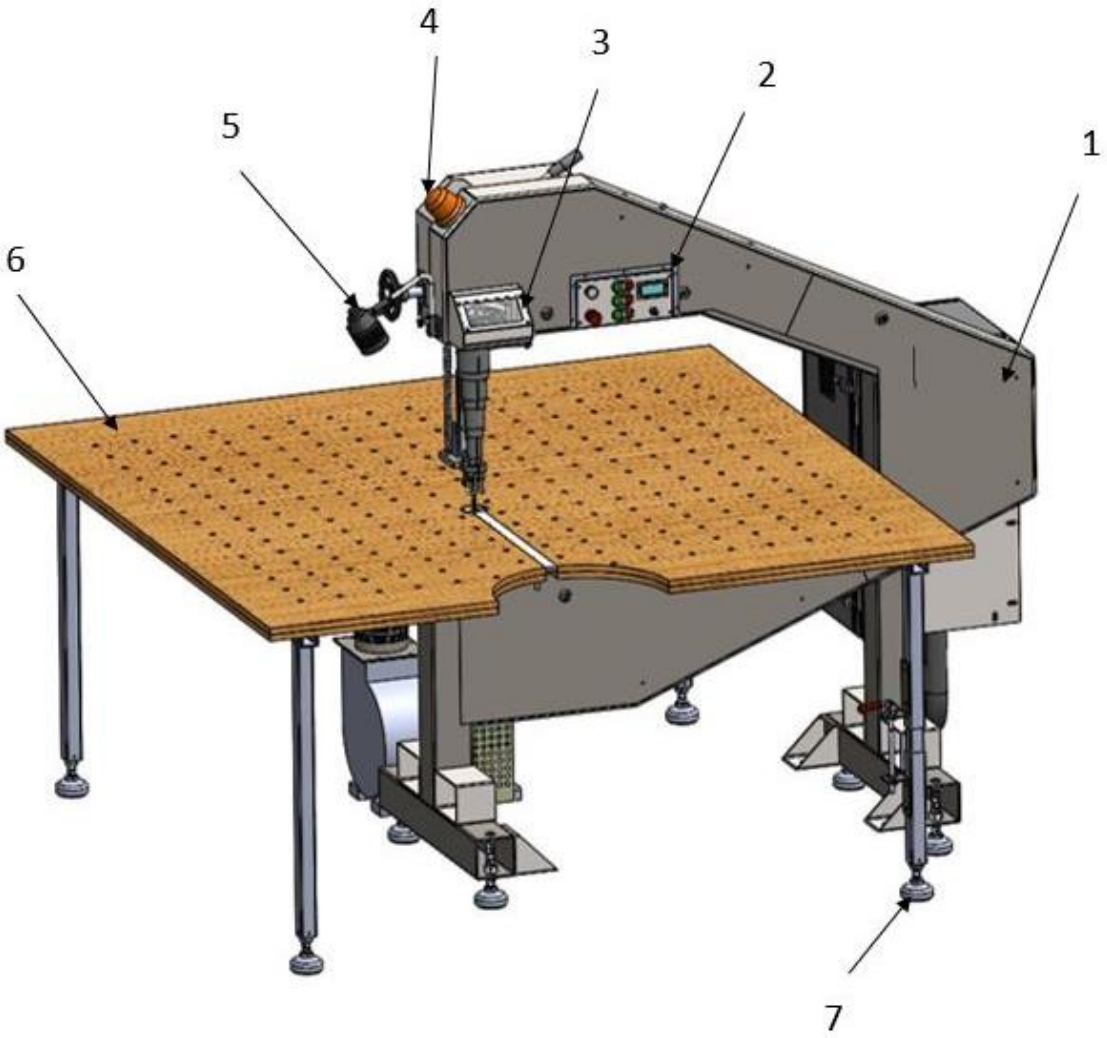
Machine is designed to cut non-elastic fabric, elastic fabric, soft cardboard or upholstery foam.

Material processing is applied to the stationary table forming part of the machine. The foam is cut from the so-called "freehand" moving block of material on the table. The may be equipped with a blowing tabletop for easy maneuvering of the foam pieces. Machine, due to its design, requires manual feed of the material to be treated. Due to the fixed structure of the machine and immovable, permanently attached table, the machine is used for the production of short series.

Machine can be used in prototyping process, in order to obtain the desired shapes (workpieces) in the upholstery room.

Types of foam, to which the cutting machine is intended: the foam of upholstery types T1830, T2130, T2538 and T3030.

The machine is designed to be operated by one operator. Some service activities require the involvement of two people.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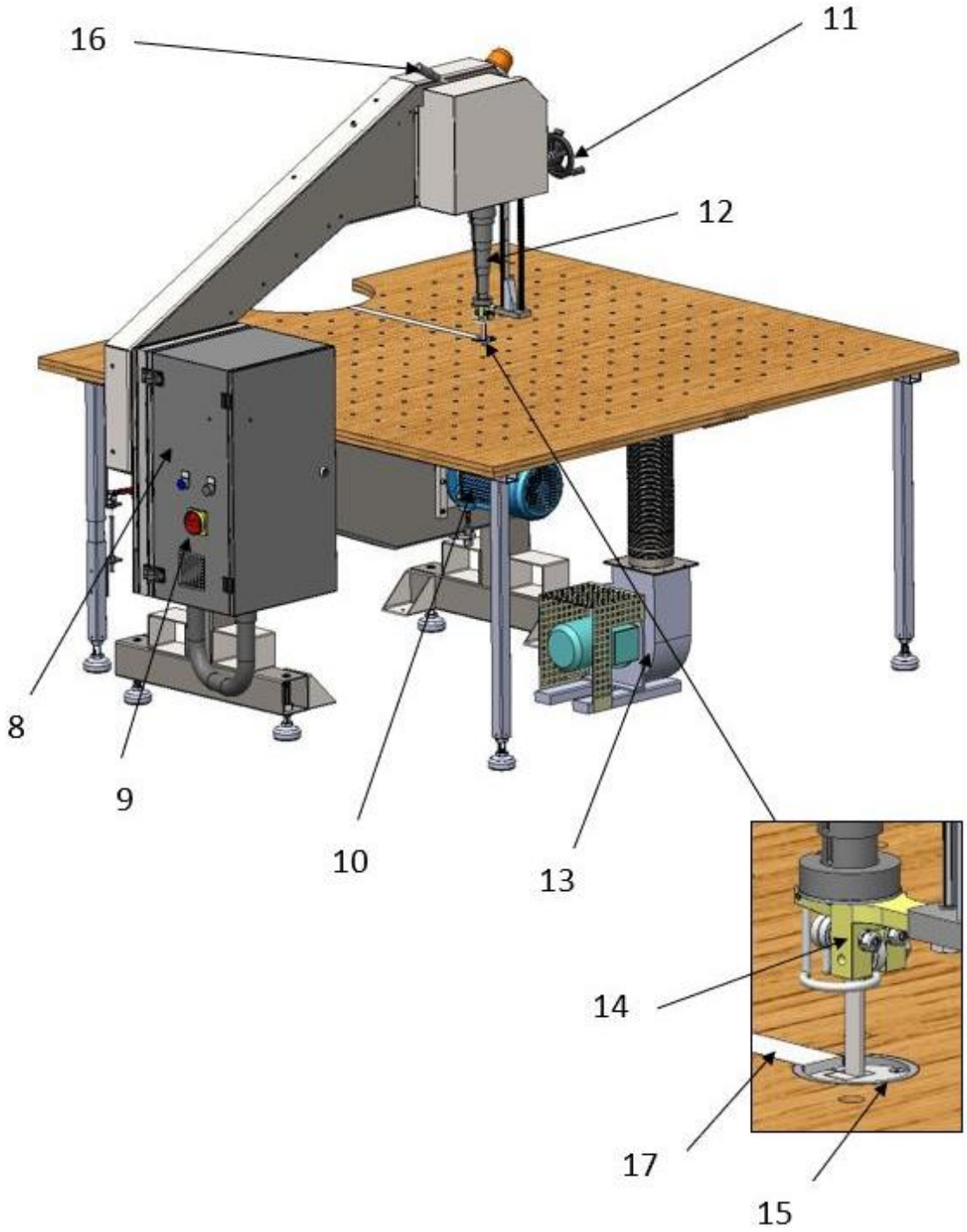


Pic.2 General view: 1-machine body, 2-control panel, 3-sharpening device, 4-signal lamp, 5-tabletop lamp, 6-tabletop, 7-foot support with adjustment, 8-control cabinet, 9-main switch, 10-motor, 11-band knife cover height adjustment wheel, 12-band knife cover, 13-air blowing unit (optional), 14-top band knife guide, 15-bottom band knife guide, 16-band knife tension lever, 17-tabletop fill plate

5.2. MACHINE STATE SIGNALS

Current machine state is shown on the control panel buttons.

5.3. MACHINE MODIFICATIONS

Any changes to the machine without the risk awareness causes a serious threat to life and property. All consequences of such actions will not be covered by warranty and service support.

⚠ DANGER

WARNING!!!
Never change or install any machine elements, in particular those responsible for safety, ie. covers, locks (magnetic safety switches), emergency stop buttons and others.

Modification of the machine can lead to serious risks!

Any changes to the machine without the risk awareness causes a serious threat to life and property. All consequences of such actions will not be covered by warranty and service support.

5.4. MACHINE SAFETY FUNCTIONS SCHEME

Electric scheme is included as separate attachment.

5.5. ELECTROMAGNETIC COMPATIBILITY

Due to the fact that all machine components related to the possibility of generating electromagnetic disturbance and those components which could be affected by this disturbance have been assembled and started in accordance with the manufacturers recommendations and Directive 2014/30/EU one can assume that:

- The electromagnetic disturbance generated does not exceed the level above which radio and telecommunications equipment or other equipment cannot operate as intended.
- It has a level of immunity to the electromagnetic disturbance to be expected in its intended use which allows it to operate without unacceptable degradation of its intended use.

5.6. SUBSTANCE EMISSION

The machine is a source of material waste after and during cutting (dust, small pieces of material). All waste resulting from the cutting process has to be recycled according to the local regulations.

5.7. MACHINE ELECTRIC SCHEME

Electric scheme is included as separate document.

5.8. CERTIFICATES THAT CONFIRM MACHINE COMPLIANCE WITH MANDATORY REQUIREMENTS

If necessary, appropriate documents indicating the necessary tests have been included in the annex to this manual.

6. INFORMATION REGARDING MACHINE USE

6.1. MACHINE INTENDED USE

As it has been mentioned before the machine designed to cut non-elastic fabric, elastic fabric, soft cardboard or upholstery foam.

⚠ CAUTION

WARNING!!!
Never treat any materials other than those specified in the specification of the machine.

Connecting and disconnecting the machine to the power supply, setting the parameters of material feed, all adjustments and maintenance work as well as inspections and repairs should be carried out in accordance with the procedures contained in this manual only by properly trained and qualified personnel for the given task.

6.2. BEFORE THE FIRST START-UP

Before the first start-up, check if the machine is correctly assembled in accordance with the instructions supplied with the machine. It may be possible that the machine may be temporarily out of use for longer time. After each prolonged shutdown follow the instructions in the subsection below.

6.3. PREPARING FOR THE FIRST START-UP OR START-UP AFTER PROLONGED MACHINE SHUTDOWN

Prolonged machine shutdown is a situation when the machine is turned off for a period longer than one month. After each such break or during first start-up one has to:

- Check if machine is approved for use by employer
- Check if the machine has passed safety functions inspection

- Check if the machine is properly placed.

Machine first start up consists of checking the correct operation of individual control elements on the machine, and making sure that the cutting band moves properly (the correct direction of movement, no vibrations, the movement of the band is in a straight line, at an equal distance from the guide bearings).

6.4. NECESSARY STEPS BEFORE NORMAL START-UP

Normal machine start-up is a situation when the machine is turned on once a shift or once a day (24 hours), but not less than a month of inactivity.

Before each start-up one has to:

- Check if the machine has any signs of damage, in this case stop any work on the machine and inform personnel responsible for machine maintenance and management.

DANGER

WARNING!!!
It is forbidden to use a machine showing signs of damage.

- Check if the space around the machine is sufficient for safe operation.
- Check if all the machine covers are in place.
- Check all safety devices safety door switches and the emergency stop buttons and the drive motor brake
- Visually check the machine components looking for possible problems or signs of damage
- Visually check structural integrity of cables in particular main power cable for any signs of damage. In case damage is noticed stop working on the machine immediately.

DANGER

WARNING!!!
Never check for power cables and other electrical cables if there is a suspicion that the cables may be connected to the power.
Risk of electric shock.

- Check if the EMERGENCY STOP buttons are connected to the machine and show no sign of damage.
- Check if the MAIN SWITCH shows no sign of damage.

If any discrepancies are found during the commissioning, stop working on the machine and secure it against accidental operation. Further work on the machine will be possible after removing the defects.

DANGER

WARNING!!!
Never work on the machine if it is found that it does not meet the requirements of this manual.

In the event that there are no contraindications it is allowed to start the machine:

- Turn MAIN SWITCH in position I (ON),
- Perform other actions according to this instruction manual.

6.5. USING THE MACHINE IN THE MANUFACTURING PROCESS

After preparation of the material layers or foam put it firmly near the vicinity of the saw blade, so that a cut line is opposite the edge of the band. Then, by rotating the handle on the side of the machine lower the guard so it is not higher than 4 mm above the material. Then start the machine and start cutting process, controlling material being very careful, do not place hands near the blade. Cutting shapes should be done in arcs not less than 16 mm.

Cutting of the foam for upholstery is the same as the cutting of the fabric layers. Before cutting upholstery foam, adjust the appropriate position of the guide manual PR-3 (if available), in accordance with pieces of foam. To set the guide, you must unlock 2 red handles, which guide the measuring stop in one position. To unlock the handles, pull the handle on both sides of the guide to each other. The cut material should be adjusted using both hands holding them always on its surface. Do not lean on the table. After each work cycle turn the machine off and lower the guard completely down.

6.6. WAYS AND MEANS FOR EMERGENCY STOP

In case of danger to health, life or property, choose one of the nearest emergency stop buttons. Three emergency stop buttons are placed on the machine.

The machine was equipped with covers with a safety door switch reacting to their opening. Activating one of the circuit breakers or the Emergency Stop Button will cause the machine to stop and enter the emergency stop mode. In addition, a motor with a brake is used to drive the cutting band.

The brake is activated as a result of pressing the emergency stop button, the button that switches off the band motion on the control panel, turning the main switch to the OFF position or opening one of the covers.

For normal shutdown of the machine, use the main switch.

NOTICE

ATTENTION!!!

It is forbidden to use the emergency stop button to stop the machine in normal mode!!! Only use it in emergency situations. Stopping the machine by means of a safety button outside emergency situations or daily tests may have an adverse effect on the operation of the safety system causing its accelerated aging.

6.7 MACHINE REPAIRS AND RESTART

Any repairs to the machine leading to the replacement of parts, including drive components, etc., may only be carried out by the manufacturer's service personnel or qualified outside service team.

All repairs carried out to the machine must be made so no changes are made to its construction or operation.

The purpose of repairs must be to restore the machine to its initial state. Any other modifications to the machine are forbidden!

After repairs and inspections, the machine should be tested before it is put into operation. In particular, it is necessary to check the operation of exchanged or repaired components and their interaction with other elements of the machine at all stages of its operation.

DANGER

WARNING!!!
Never change or install any machine elements, in particular those responsible for safety, ie. covers, locks (magnetic safety switches), emergency stop buttons and others.

Modification of the machine can lead to serious risks!

Any changes to the machine without the risk awareness causes a serious threat to life and property. All consequences of such actions will not be covered by warranty and service support.

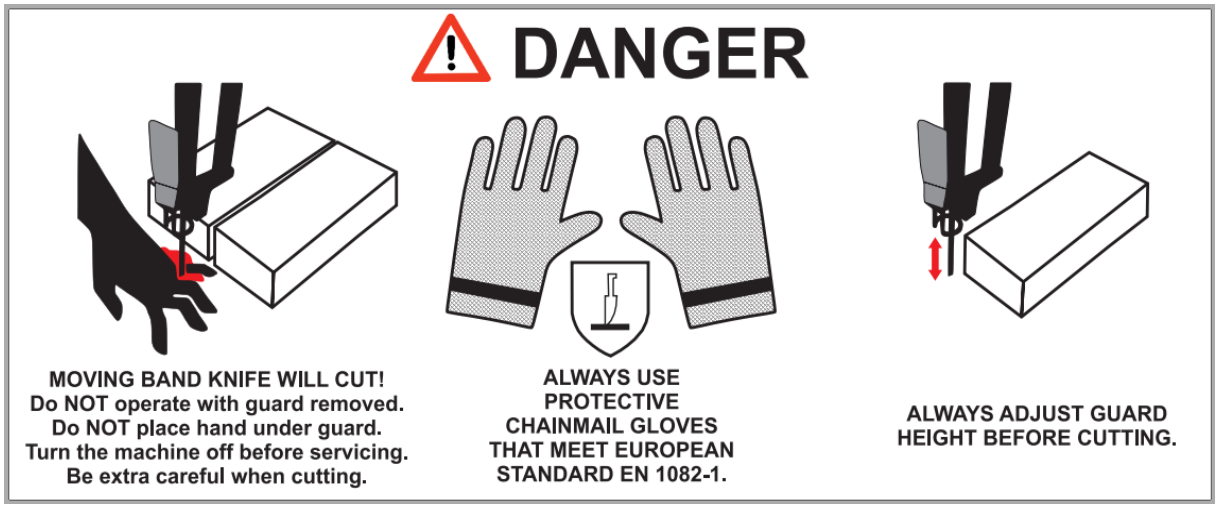
DANGER

WARNING!!!
Never attempt to perform repairs without sufficient knowledge, skills, qualifications and training.

In the absence of sufficient knowledge, skills, qualifications and training, contact the machine manufacturer's service or machine manufacturer.

Unauthorized repair personnel are exposed to an unspecified risk.
In case when repair is carried out improperly, an unspecified risk may appear.

7. WORKING WITH THE MACHINE



During cutting it is important to wear hand protection - stainless steel mesh gloves that meet requirements of EU / EC standard EN 1082-1.

7.1. MACHINE SWITCHING ON

After connecting the machine to the power it is necessary to switch the main switch to the ON position, then a lamp signaling the readiness of the machine to work will light up on the machine body.

The control of the band knife takes place via a control panel placed on the machine body.

Leaving any of the machine doors in the opened position will prevent the knife from start.

7.2. CUTTING BAND START

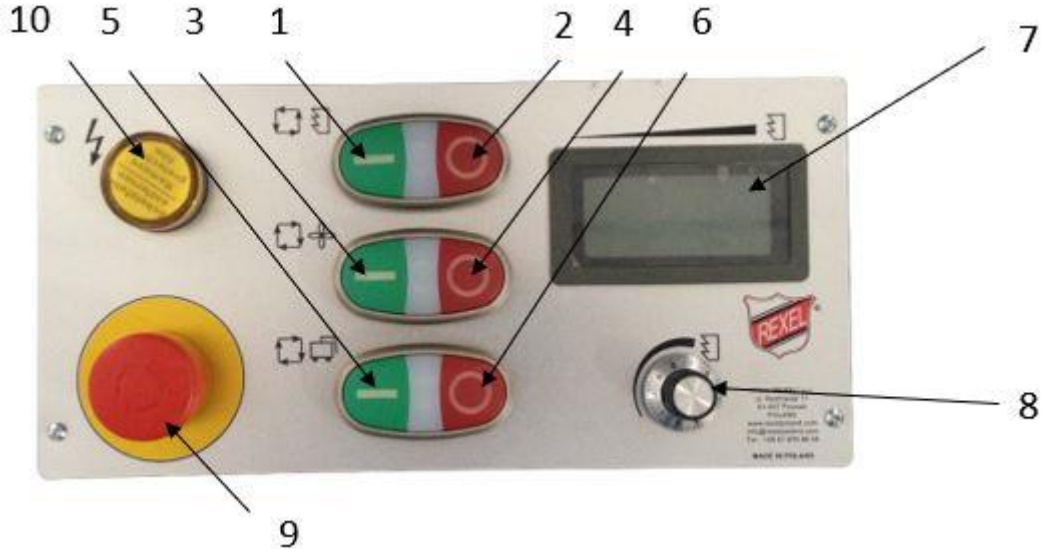
In order to start the band:

- Press green button „START BAND” (1) (pic. 3 str.47).
  This will cause middle part of the button to glow „START BAND” as well as the signaling lamp (4) (pic.2 str.37) mounted on the top of the machine body will start to blink.
  - One can adjust the speed of the band using potentiometer (8). Actual speed is shown on a screen (7).

7.3. CUTTING BAND STOP

In order to stop the band:

- Press red button „STOP BAND” (2) (pic.3).



Pic.3 Control panel: 1-start band, 2-stop band, 3-air blowing start, 4-air blowing stop, 5-dust removing system start, 6-dust removing system stop, 7-speed screen, 8-potentiometer for speed adjustment, 9-emergency stop button, 10-signal lamp.

7.4. MACHINE EMERGENCY STOP

In order to stop the machine in case of emergency one has to press „EMERGENCY STOP” (9). Signal lamp (10) informs that the power was not switched off using the main switch (9) (pic.2 str.38).

7.5. DUST REMOVING SYSTEM START AND STOP (OPTIONAL EQUIPMENT)

As a dust removing system it is recommended to use a professional vacuum cleaner of industrial type, suitable for continuous operation. Power socket for vacuum cleaner is located in the lower part of the electric cabinet. (PS-220 is optional equipment). Dust removing hose should be inserted under the tabletop where there is lower band guide, in a white housing.

In order to start the vacuum cleaner (in case it is supplied with the machine):

- Press green button „START VACUUM CLEANER” (5) .

  This will cause middle part of the button „START VACUUM CLEANER” to glow.

In order to stop the vacuum cleaner:

- Press red button „STOP VACUUM CLEANER” (6).

7.6. AIR BLOWING (OPTIONAL EQUIPMENT)

It is a device that generates a blast of air that exits through the air nozzles mounted on the work table. It has the effect of blowing air cushion thereby facilitating maneuvering of cut material. To gain the best effect of the air blowing between the top and the workpiece thin paper should be placed under the workpiece. Tabletop may be manufactured without blowing.

7.7. END OF SHIFT

After the work on the machine is finished one has to turn it off using MAIN SWITCH. Check the machine and perform maintenance according to chapter:

8. Maintenance service p. 52

7.8. MACHINE MISUSE AND ABNORMAL USE

There is a number of possible cases for the incorrect use of the machine. These cases set out below and limited to foreseeable misuse. One has to make sure of following:

- Do not use materials other than the appropriate types of upholstery foam. It is only permissible to cut materials with similar properties, unless it introduces additional hazards. It is strictly forbidden to cut materials such as metal, wood, concrete and flammable materials with the machine.
- Use a protective mask when the workpiece is dusty or when cutting dusty materials.

- The band knife length must be precisely sustained (see: Technical specification). It is forbidden to use a band of specifications other than mentioned in this manual.
- Never touch a moving band knife with bare hands or some other object not being the treated material.
- It is forbidden to use two 4 sided bevel band. Use of double bevel band is allowed.
- It is forbidden to transport or store the machine in conditions that do not meet the condition in chapter:

3. Transport and storage p. 31

- It is forbidden to walk or stay under transported parts of the machine, or in place where such parts may fall.
- It is forbidden to work on the machine that is improperly assembled or connected to the power supply.
- It is forbidden to work without proper individual protection.
- It is forbidden to work without protective covers, damaged or removed covers. Such covers have to be replaced according to maintenance procedures.
- It is forbidden to perform any maintenance procedures by specialists not authorized or trained by the manufacturer.
- Do not put hands in places which can be considered pinch points or mechanical crush points.
- It is forbidden to perform any work with machine parts that are connected to power without proper experience and qualifications.
- Do not modify the machine in any way including the following parts: drive mechanism, covers, safety system or labeling.
- Work on the machine in explosion hazardous environments. There is a risk of ignition or explosion if there is dust, liquid or gaseous combustibles inside the machine.
- Do not use the machine showing any signs of damage.
- It is forbidden to work on the machine of unqualified personnel.

- It is forbidden to work on the machine under influence of alcohol, drugs or any other psychoactive substances.
- Do not use machine in case of surrounding area is not clean or not properly organized.

Also:

- It is forbidden to use water or other conductive liquids while cleaning the machine or electrical components and their surroundings, in particular without disconnecting the power supply. Performing such work is also forbidden in case the power supply is disconnected.
- Do not overload the machine elements by using incorrect settings.
- Do not use tools not approved by the manufacturer.
- Do not work on the machine without knowledge of the information given in the original manual and other documents supplied.
- Do not wear loose clothing or anything that may entangle in the machine.

8. MAINTENANCE SERVICE

The service consists in periodic checking of electrical connections, especially protective conductors included in the power supply and control system. Check the cutting band tension and its wear condition.

To ensure correct operation of the machine, daily inspections should be carried out, consisting in a visual assessment of the correctness of their work.

Before starting maintenance, adjustments, repairs and other service operations, disconnect the power supply using the main switch by moving it to the OFF position and remove the power plug from the socket.

Performing any service work while the machine is running or connected to power is forbidden!

8.1. INSPECTION

During operation, it is recommended to carry out current inspections in order to check the correct condition and functioning of the device in accordance with the procedures in the company.

To ensure correct operation of the machine, daily inspections should be carried out, consisting in a visual assessment of the correctness of their work.

The scope of performed activities includes:

- Certainty of shutdown, control of the emergency switch,
- Checking the cleanliness of the components (defects, cracks on the cutting band),
- Visual inspection of the equipment (cover damage, loosening or missing screw connections, damaged cutting band etc.),
- Possible adjustments.

The machine should be subjected to periodic inspections (suggested frequency, every two months of two-shift work).

The scope of the activities performed includes:

- Certainty of shutdown, control of the emergency switch,

- Reliability of the mechanical interlock,
- Checking that the components have not been damaged,
- Checking the tightening of screws and fasteners,
- Assessment of the wear of moving parts,
- Making the necessary adjustments.

8.2. PREVENTIVE MAINTENANCE

Every 6 months perform maintenance.

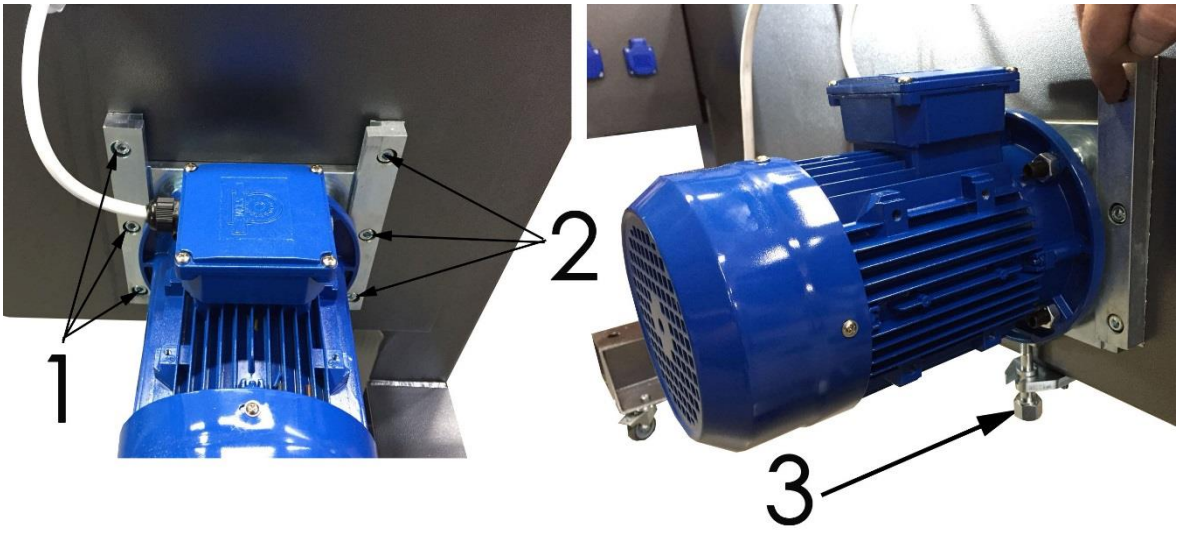
The scope of the activities performed includes:

- Assessment of the degree of wear,
- Replacement of worn elements,
- Tightening of screws and fasteners,
- Adjustments,
- Removal of defects,
- Checking the correctness of the operation of control and safety elements,
- Checking additional equipment items according to manufacturer's recommendations,
- General cleaning of the machine.

8.3. ADJUSTMENTS

8.3.1. Cutting band adjustment

Loose tension of the band may cause it to slip from the band guide wheels and stop the machine operation. In case one notices that the band is loose, one has to perform band tension adjustment. Band adjustment mechanism is shown in a photo in the following example. First loosen the screw CONNECTIONS numbered 1 and 2, then adjust the band tension by means of the tensioning screw is shown at 3 and finally tighten the screws 1 and 2.



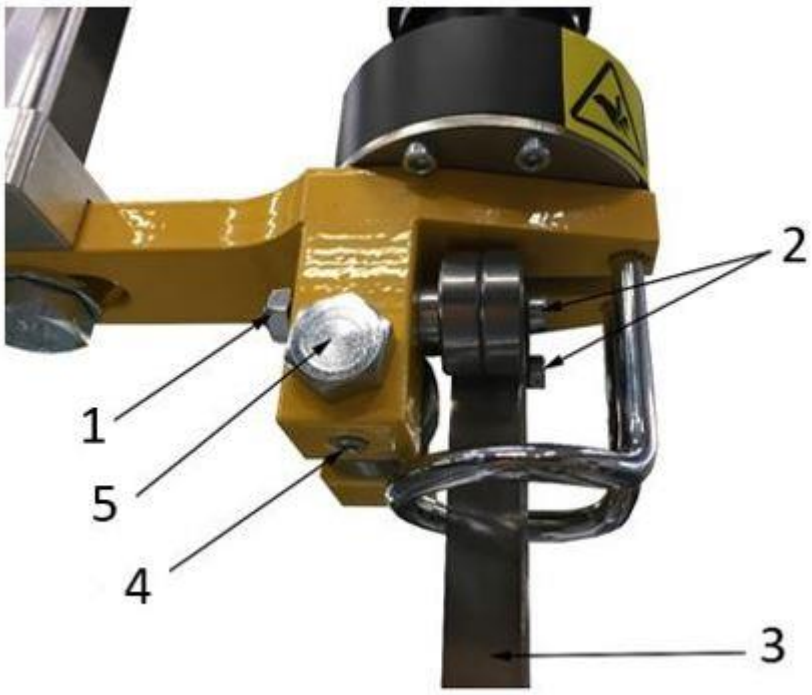
Pic.4 Cutting band tension adjustment mechanism

8.3.2. Upper and lower band guide adjustment

Technical solutions used in this band knife machine R750/R1000 allow adjusting upper and lower guide bearings to select desired cut accuracy. Sometimes it is important to adjust guides after band replacement.

In order to perform adjustment of the upper band guide (pic.5):

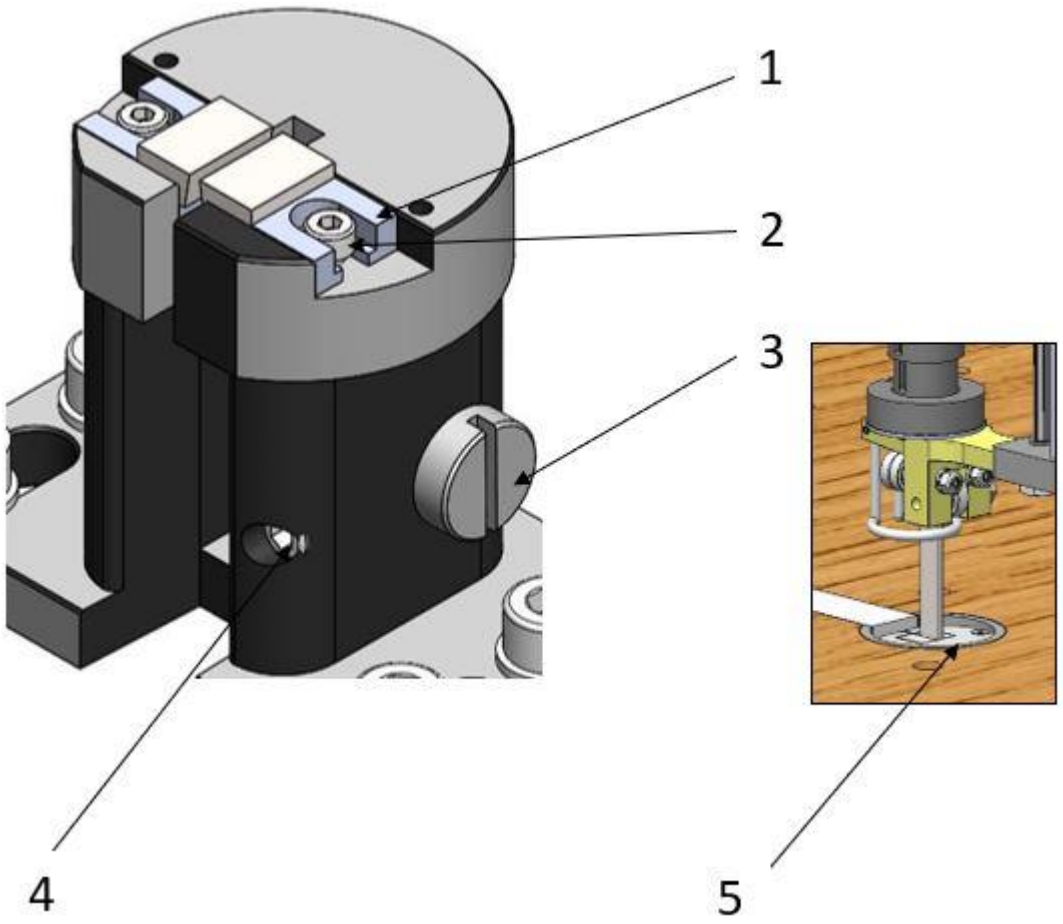
- Use 8 mm flat key to unlock the nuts (1) that hold bearing (2).
- Use a slotted screwdriver and turn bearing axis (2) to set the correct distance from the band (3).
- Lock the axle nut (1).
- A second bearing guide adjusted as described above; recommended minimum gap of 0.75 mm (0.45 mm band thickness plus 0.3 mm gap).
- Use a 4 mm Allen key to loosen the screw (4).
- A wrench turning axis (5) to set the appropriate distance from the band (3) recommended slot 0.5 mm.
- Tighten the screw (4).



Pic.5 Upper band guide adjustment

In order to perform adjustment of the lower band guide (pic.6):

- Remove the cover of the lower guide (5).
- Loosen the M4 screws (2) using hex key nr.3.
- Set the 0.75 mm gap (0.45 mm band thickness 0.30 mm gap) between guides the band knife (1).
- Loosen the screw (4) using hex key.
- By twisting the axis (3) set 0.50 mm gap between back bearing and back side of the band knife (1).
- Tighten the screw (4).
- Recommended gap is 0.5 mm.
- Place back the cover of the lower guide bearing (5).



Pic.6 Lower band guide adjustment

8.3.3. Band knife guide wheels adjustment

In case the band slips off the wheels often it indicates that one has to adjust the guide wheels.

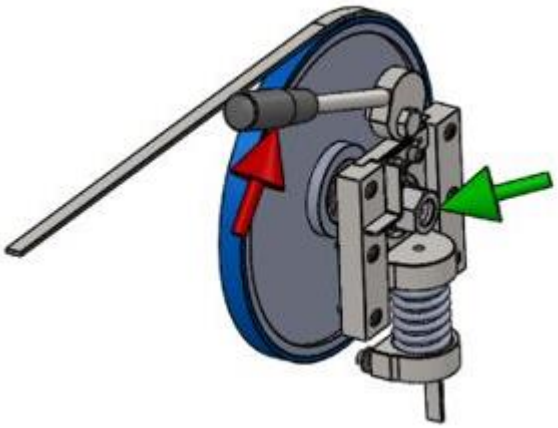
This can be performed by one qualified worker with personal protection equipment:

- Protective gloves
- Protective eyewear
- Protective clothing

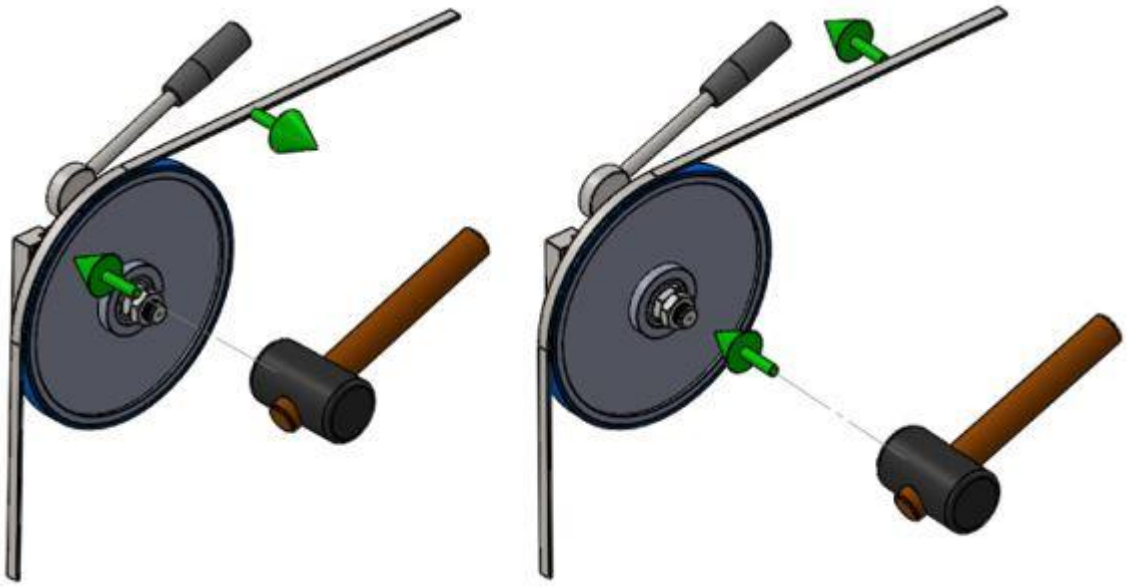
WARNING: Machine has to be turned ON to the power during adjustment!

In order to adjust the wheels:

- Switch the machine to the "SERVICE" mode on the back of the control cabinet
- Press Emergency Stop button
- Using handle (1) (pic.9) loosen the band tension,
- Open the covers: top (1), side (2), bottom (3) using a key (pic.11),
- Loosen the nut M20 (marked below with green arrow),



Band knife guide wheels adjustment



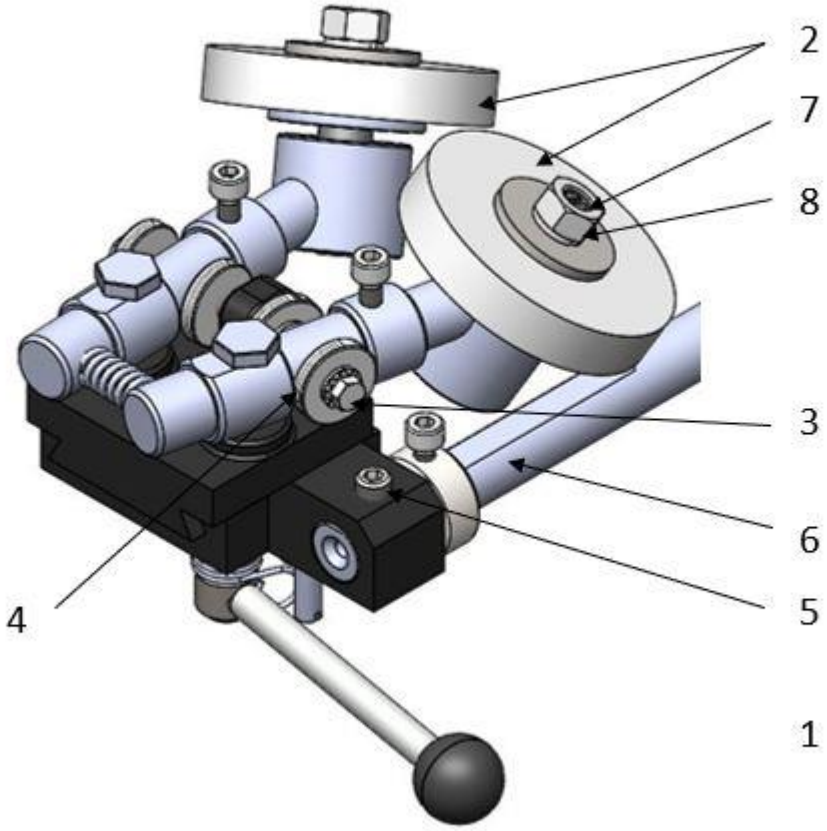
Band knife guide wheels adjustment – points to hit

- Slightly hit the wheel using a rubber hammer. Point of hit depends on the side where the band is slipping during movement,
- Fix the nut M20,

- Perform actions above (5-7) to the other wheels except for the wheel connected to the motor),
- Tension the band again,
- Turning the wheels manually check how the band rotates,
- Close the opened covers,
- Switch the machine to work mode using „SERVICE” button on the control cabinet,
- Unlock the Emergency Stop button,
- Press „RESET” button placed on the control cabinet,
- Perform test cuts.

8.4. BAND KNIFE SHARPENING

Increased effort in fabric layer control and cutting resistance indicate that the band knife is blunt. General overview of the sharpening device and its main elements Pic. 7:



Pic.7 Band knife sharpening device

Steps to sharp the band knife:

- Put down the presser foot (6) (Pic.2 p.38) in maximum down position,
- Turn on the machine with maximum band cutting speed.
- Pull arm (1) slowly towards front and left side. The arm controls sharpening device. Then the sharpening stones (2) will start to sharp the band, hold the arm in this position for a few seconds. If the band is new, hold arm as long as it get sharp cutting edge.
- Release arm (4.1) (the arm will go back to its position).

- Check the quality of sharpening by cutting a test material (the fabric must be cut easily without any scraps).

Sharpening stones (2) must move simultaneously (must start sharpening – touch the band at the exact same moment). If they don't - it is necessary to adjust the gap between the band and the grinding stones.

8.4.1. Steps to adjust the gap between band and sharpening stones

Steps to adjust the gap (pic.7):

- Open the cover of sharpening device.
- Unscrew the nuts (3) and (4) of sharpening stones.
- Twist a little or untwist screw (4) set the appropriate gap for sharpening stones (2) start to rotate in contact with the band twist manually one of the wheels.
- After adjustment is made tighten the screws (3) with nut (4).

Sharpening device can be uninstalled (in case when sharpening stones need to be replaced) by its removal from the mounting shaft, before that one must release a screw (5).

Sharpening device can be installed back on the mounting shaft (6). Sharpening stones must be close to the band with few millimeters gap. In this position the arm (1) must be locked by screw (5).

After each sharpening test the quality of cutting. Also remove the dust and scraps under the band.

Clean the dust collection container periodically which is attached to the body by screws. Depending on the volume of work periodically remove dirt from container. The container is attached to the body with a bolt cutter located next to the band.

8.4.2. Sharpening stone replacement

After many times of use the sharpening stones will wear out. If the stone surface is uneven and the quality of sharpening is bad, it is highly recommended to replace the sharpening stones.

Steps to replace sharpening stones (pic. 7):

- Uninstall sharpening device from machine removing or opening any covers on the way.
- Block the axis of sharpening stone (7) by screwdriver and unscrew the nut (8). Replace the stones.
- Tighten the nuts. Install sharpener on the shaft (6).
- Make a test sharpening and adjust the gap between the band and the sharpening stones (look: Band knife sharpening).

8.5. CUTTING BAND REPLACEMENT

Band knife should be replaced in case of:

- High wear of the band (if the width of a band knife is about 5 mm it should be replaced on a new one).
- Cracked band.

Great influence of the work of a band knife machine, especially on the level of noise, vibration and machine long-lasting has a way of operation.
The cutting band knife length must be precisely sustained (see: Technical specification). Allowed length of a band for each type of our Band cutting machines is +/- 5 mm.

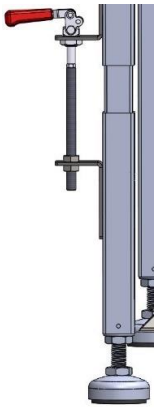
Steps to replace the cutting band:

The cutting band may be replaced by a single worker wearing personal protective equipment, ie:

- Protective gloves
- Goggles
- Protective clothing

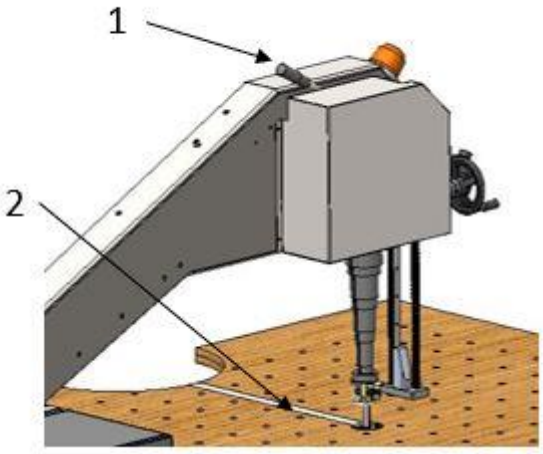
NOTE: The machine must be switched ON when changing the band!
In order to replace the cutting band:

- Switch the machine to the service mode with the "SERVICE" button on the control cabinet.
- Press the "EMERGENCY STOP" button (1) on the operator panel,
- Lift up the machine support with the help of handles (pic.1 p.33),



Pic.8 Machine support with handle

- Release band knife tension lever (1) as shown below (pic.9) (pull in the direction of the control cabinet until it stops),



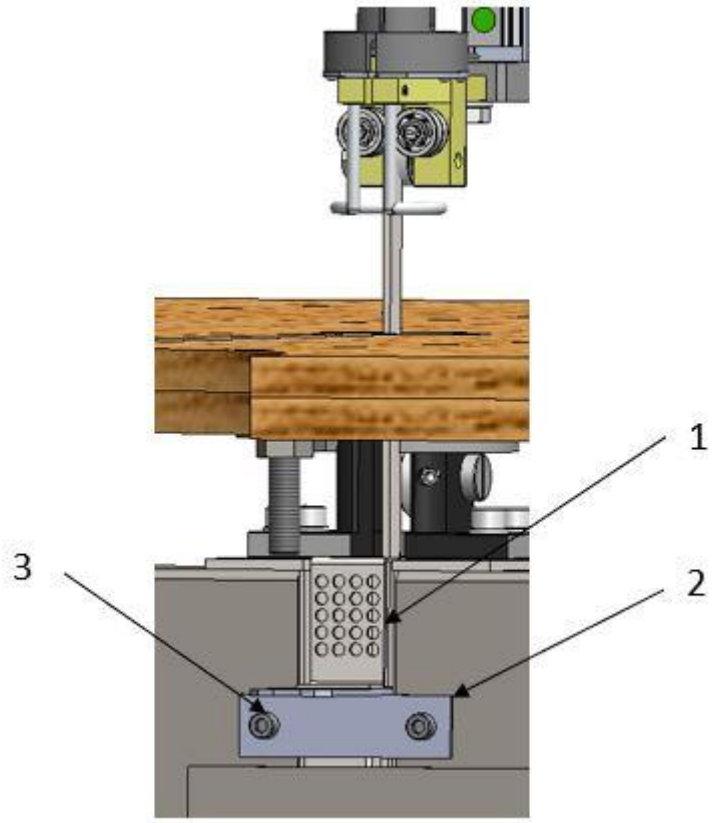
Pic. 9 Band knife tension lever

- Remove the tabletop filling plate (2) (pic.9),
- Remove covers (1) and (2) removing screws (3) (pic.10),
- Remove sharpening device (3) (pic.2 p.38),
- Open the covers: top (1), side (2), bottom (3) using special key supplied with the machine (pic.11),
- Rotate the telescopic knife guard (4) (pic.11) with a notch away from the operator.
- Remove old band,
- Install the new band on the guide wheels,

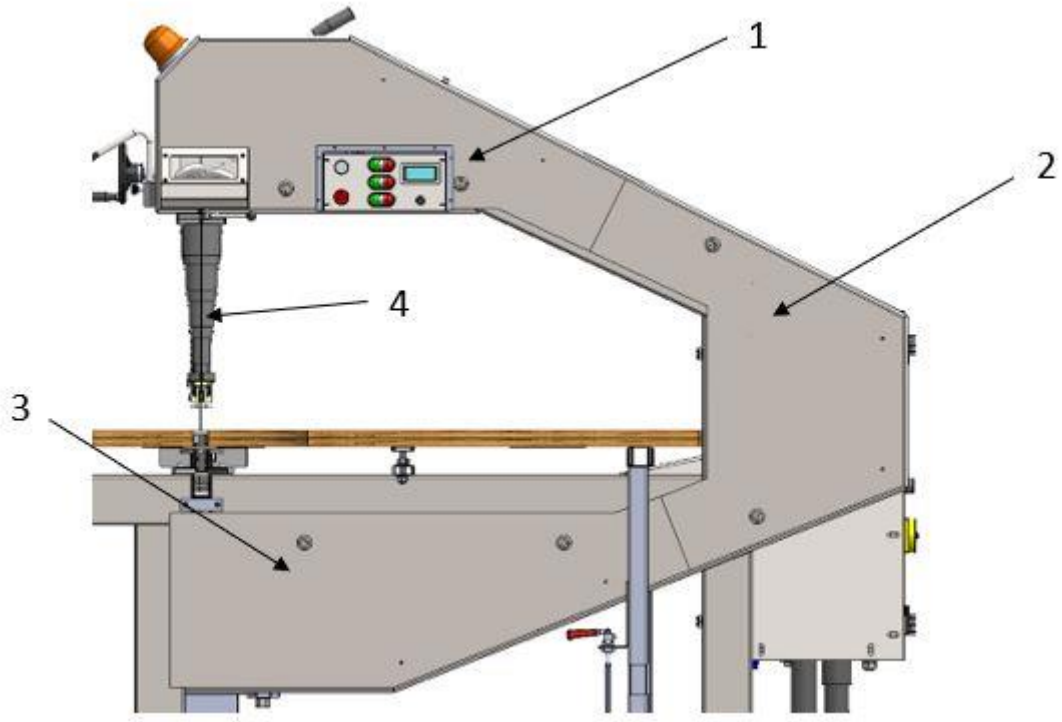
- Move the tension lever (1) (pic.9) to the direction of the signal lamp in order to tighten the band,
- Manually make several turns of the guide wheels with the direction of work (counterclockwise) so that the band aligns itself on the wheels.
- Perform adjustment of the band tension if necessary see chapter: **(8.3.1 Cutting band adjustmentp.53),**
- Close the covers: top (1), side (2), bottom (3) using special key supplied with the machine (pic.11),
- Rotate the telescopic knife guard (pic.11) with a notch away from the operator.
- Mount the sharpening device (3) (pic.2 p.38),
- Mount the band knife covers (1) and (2) using screws (3) (pic.10),
- Mount the tabletop filling plate (2) (pic.9),
- Use the handle to put down the (pic.1 p.33) machine support with handle,
- Switch the machine to the operating mode by pressing the "SERVICE" button on the control box,
- Unlock the "EMERGENCY STOP" button (1) on the operator panel
- Press the "RESET" button on the control box.
- Machine is ready to work. Check the quality of the cut, if necessary, sharpen the band, see chapter: **8.4 Band knife sharpening, p. 58**

Cutting band specifications

Model	R750	R1000
Length/width/thickness [mm]	3800x12x0,4	4250x12x0,4



Pic. 10 Band knife cover



Pic. 11 Machine body covers and telescopic cover

8.6. CLEANING

Before cleaning the machine:

- Disconnect the machine from the power supply;
- Put the main switch in the off position (OFF) and lock it with padlock.

For cleaning, use a damp cloth. Do not use alkaline washing detergent. Dust particles and other contaminants in the interstices are removed by compressed air pistol or vacuum cleaner. Remember to use sight and hearing protection when working with compressed air.

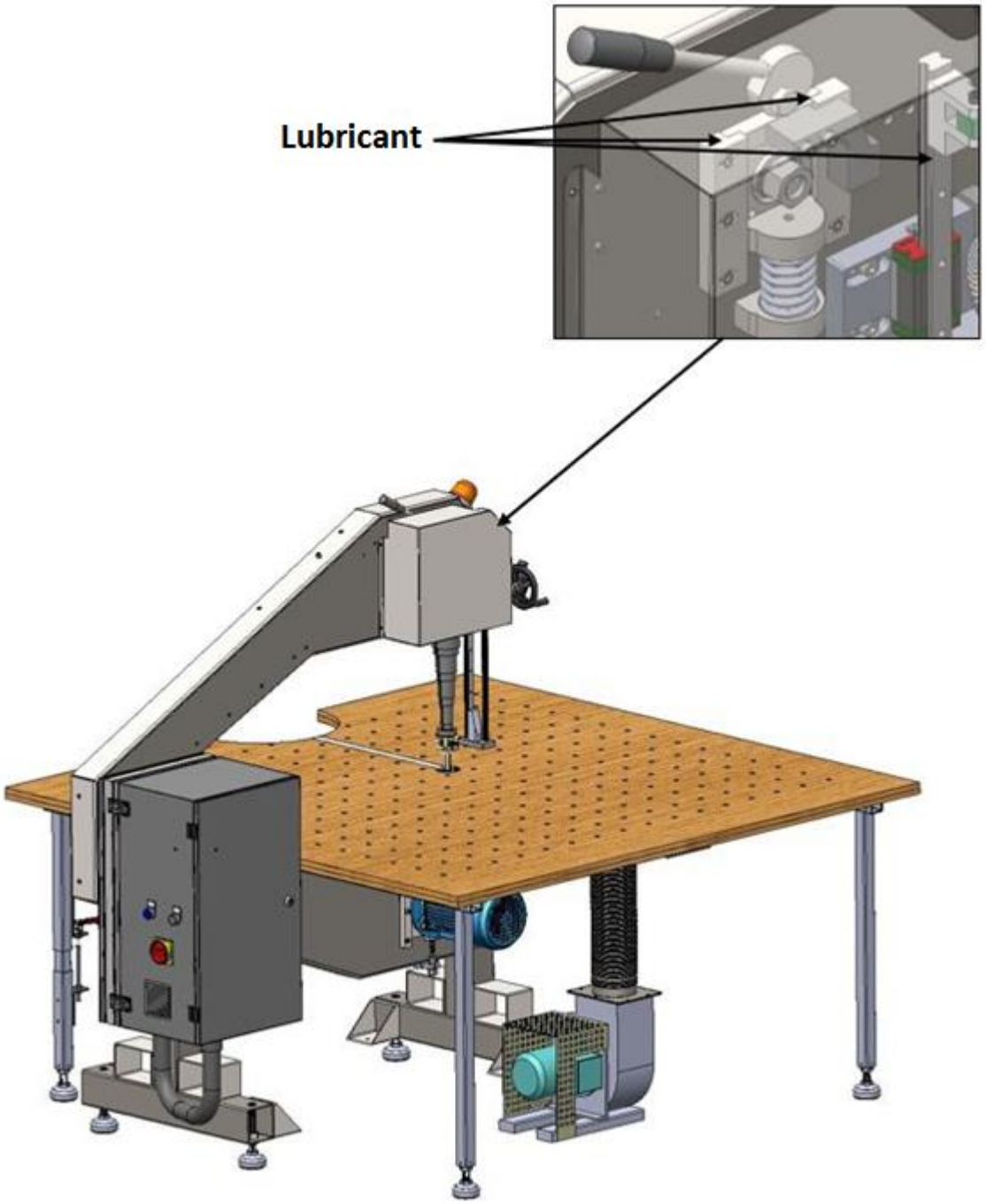
Machine cleaning includes:

- At least once a day clean the bottom band guide;
- At least once a day to clean the top band guide;
- Periodically clean the dust collection tray under the sharpening device and a sharpening cover;
- Checked and clean regularly and clean the rubber on the guiding wheels from dust and material scraps;
- Oily contamination remove using solvent.

8.7. LUBRICATION

Lubrication boils down to periodically introducing a few drops of machine oil to the following surfaces (Pic.12 str. 63):

- Band tension mechanism guides,
- Upper band knife guide sliding profile,
- Band tension mechanism.



Pic. 12 Lubrication points

9. MACHINE END OF LIFE, DISMANTLING AND DISPOSAL

Each machine after multiple cycles wears itself at the structure level. After use, the R750/R1000 machine does not require any special storage. If elements of the machine may be a source of contamination, they should be dismantled and immediately disposed of in accordance with the local regulations.

9.1. SIGNS INDICATING MACHINE END OF LIFE AND NECESSITY OF ITS DISPOSAL

In the event that it is not possible to repair the main components of the machine, in particular when, despite repairs, further machine safe use is not possible, one should stop working on the machine and dispose of it.

9.2. MACHINE SAFE DISPOSAL

Materials used to make the machine should be recycled. The components of the device made by sub-suppliers are subject to recycling in accordance with the instructions of their manufacturers. The parts that make up the R750/R1000 band knife machine are used as mixed scrap. However, it is possible to dismantle it for sorted scrap.

The Band knife machine R750/R1000 is mainly made of the following materials:

- powder coated, galvanized and blued steel
- aluminium
- various plastics
- rubber
- lubricants
- engineered wood (chipboard)

The electric scrap must be disposed of in accordance with the applicable ordinances.

10. RESIDUAL RISK

Despite taking exceptional care in order to lower the risk when working with the machine, there are some residual risks that cannot be avoided. The residual risks exist due to a possibility of improper behavior of the user or personnel using the machine.
In cases where the machine is used according to OSHA regulations and when this machine is used in accordance with this manual, the residual risk should not lead to accidents.

No.	Action	Residual risk	Methods to reduce residual risks
1.	**Transport, assembly and installation; withdrawal from use, disassembly, transport**	**Losing stability during transport, falling, hitting protruding parts of the machine**	- passing on information on how to transport the machine according to this manual; - strictly following OSHA regulations during transport of the machine; - these actions can be performed only by trained personnel that has appropriate competences (transport, assembly and disassembly)
2.	**Assembly, installation, affixation, anchoring, withdrawal from use, disassembly, transport**	**Crushing, retraction due to the use of electric hand tools**	- passing on information on how to transport the machine according to this manual; - strictly following OSHA regulations during transport of the machine; - these actions can be performed only by trained personnel that has appropriate competences (transport, assembly and disassembly)

No.	Action	Residual risk	Methods to reduce residual risks
3.	**Assembly and installation, connecting (to electrical system), withdrawal from use, disassembly, transport**	**Electrocution**	- passing on information on how to transport the machine according to this manual; - strictly following OSHA regulations during transport of the machine; - these actions can be performed only by trained personnel that has appropriate competences (transport, assembly and disassembly)
4.	**Training/programming or changing the process – assembly or changing the tools, setting the tools**	**Crushing risk, manufacturer's workers at risk during test runs without safety covers**	- passing on information on how to transport the machine according to this manual; - strictly following OSHA regulations during transport of the machine; - these actions can be performed only by trained personnel that has appropriate competences (transport, assembly and disassembly)
5.	**Small regulations of the machine, setting parameters and other functionalities of the machine (e.g. band speed adjustment)**	**Cutting risk, hitting protruding parts of the machine**	- passing on information on how to transport the machine according to this manual; - strictly following OSHA regulations during transport of the machine; - these actions can be performed only by trained personnel that has appropriate competences; - use of personal protective equipment.

No.	Action	Residual risk	Methods to reduce residual risks
6.	**Cleaning, conservation, ongoing maintenance of order and cleanliness**	**Cutting risk, hitting protruding parts of the machine, Electrocution due to direct contact with machine elements under voltage**	- passing on information on how to transport the machine according to this manual; - these actions can be performed only by trained personnel that has appropriate competences.

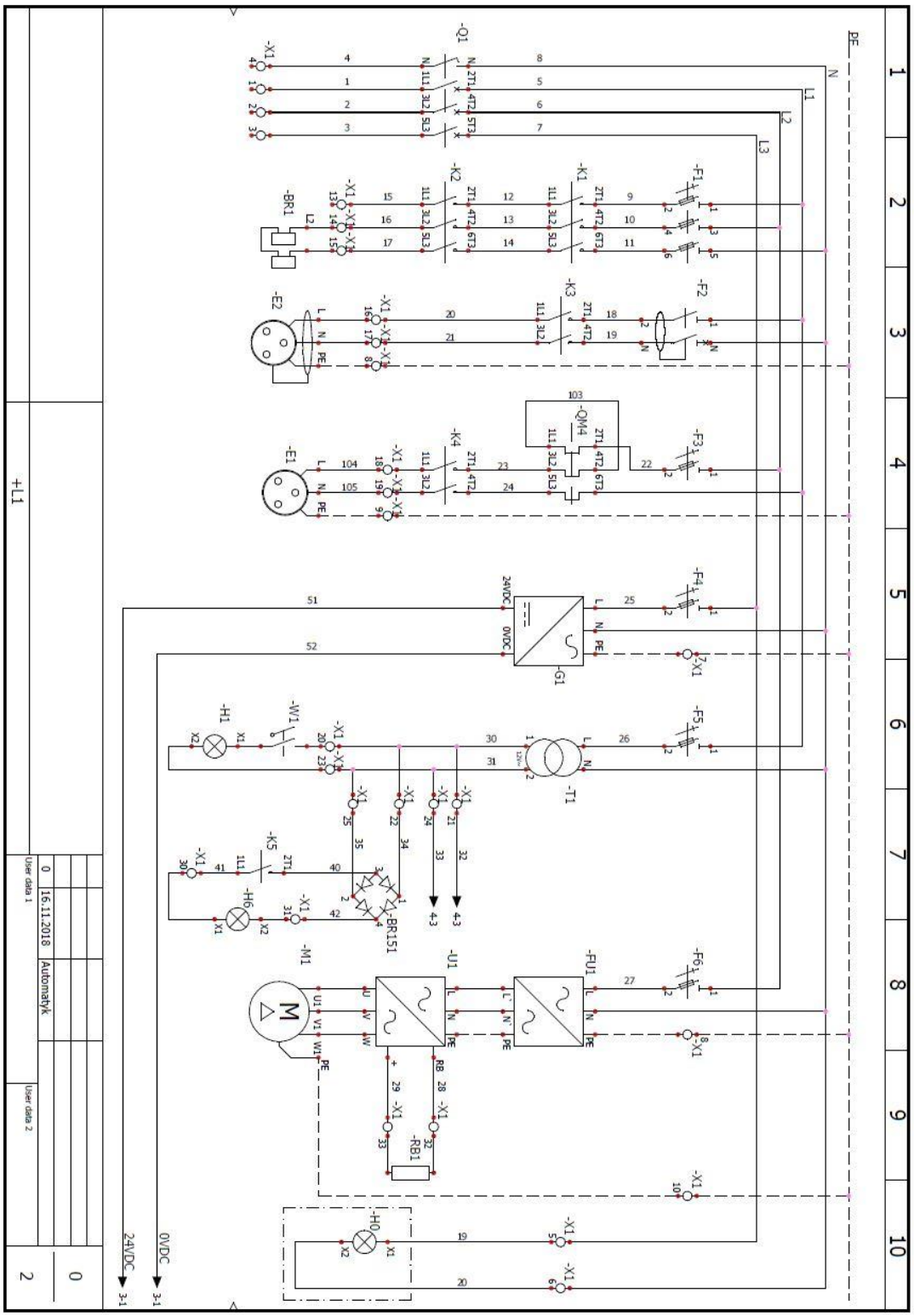
It is extremely important to remember that when these rules are not followed, additional risks due to improper handling of the machine might appear.

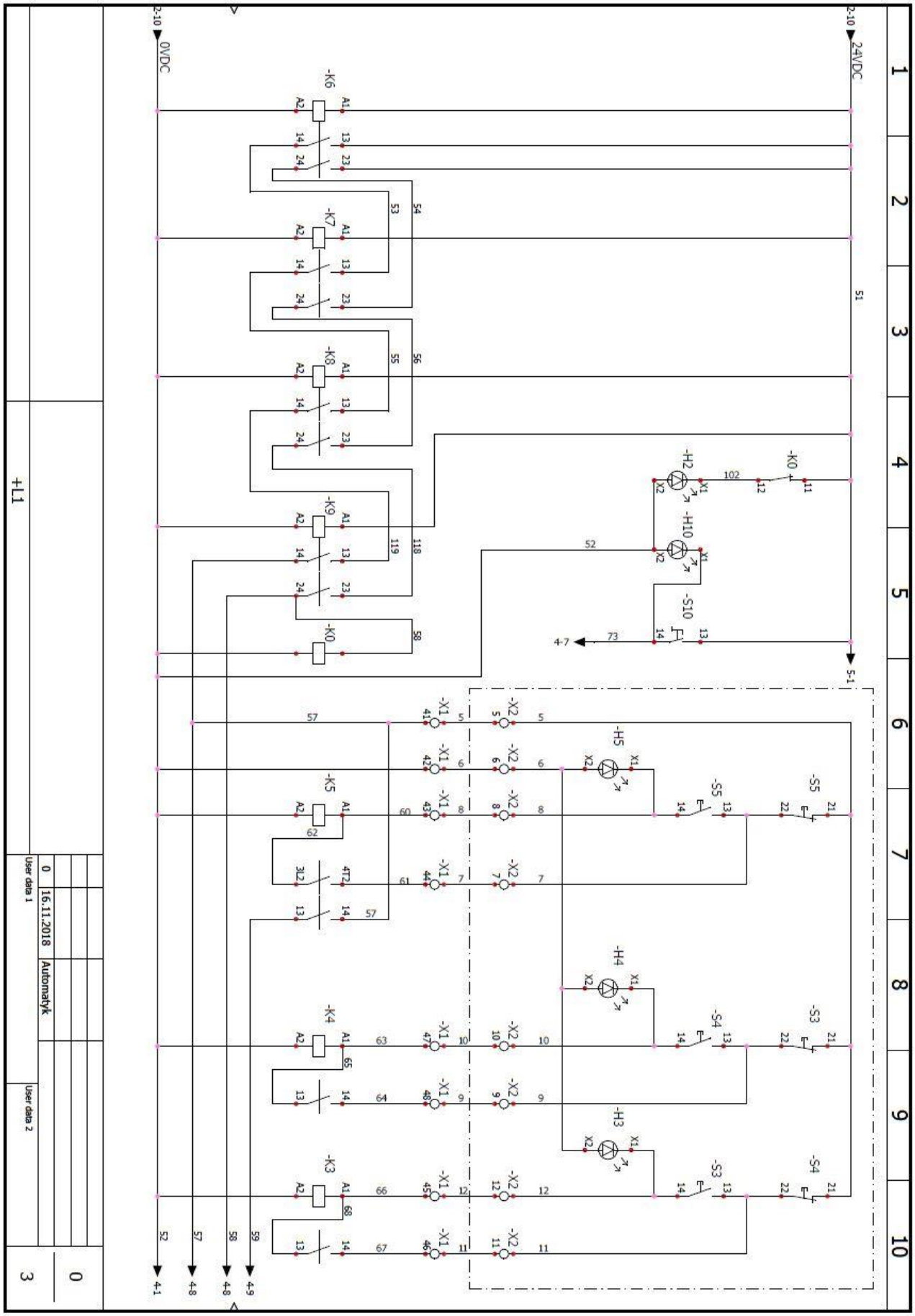
11. SPECIFICATIONS

	Band knife machine	
Specifications	R750	R1000
Band length [mm]	3800	4250
Maximum cutting height [mm]	230	250
Arm length [mm]	750	1000
Band knife speed [m/s]	0-18	0-18
Voltage [V]	400/230	400/230
Motor power [kW]	1.5/2.2	1.5/2.2
Tabletop dimensions [mm]	1500x1500	1800x1800
Weight [kg]	270	350
Dust removing system	optional	optional
Air-blowing	optional	optional
Measuring stop	optional	optional

10. ANNEX I – ELECTRIC SCHEMATICS

- Band knife machine R750

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-K4
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-H5
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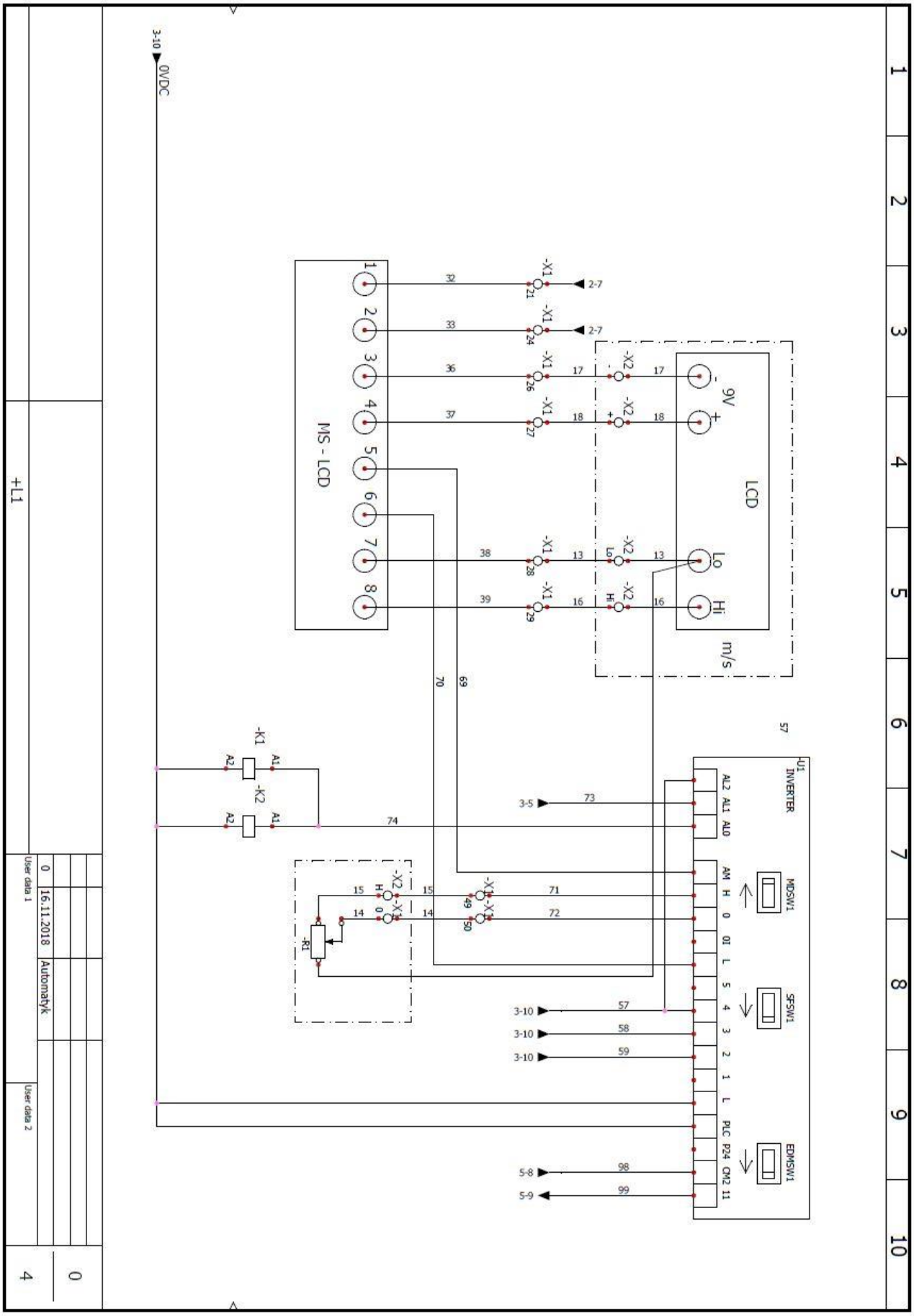
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Hi
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-X2
-K1
-K2
-R1
U1
INVERTER
MDSW1
SFSW1
EDMSW1
AL2 AL1 AL0
AM H 0 01 L 5 4 3 2 1 L PLC P24 CM2 11
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5-8
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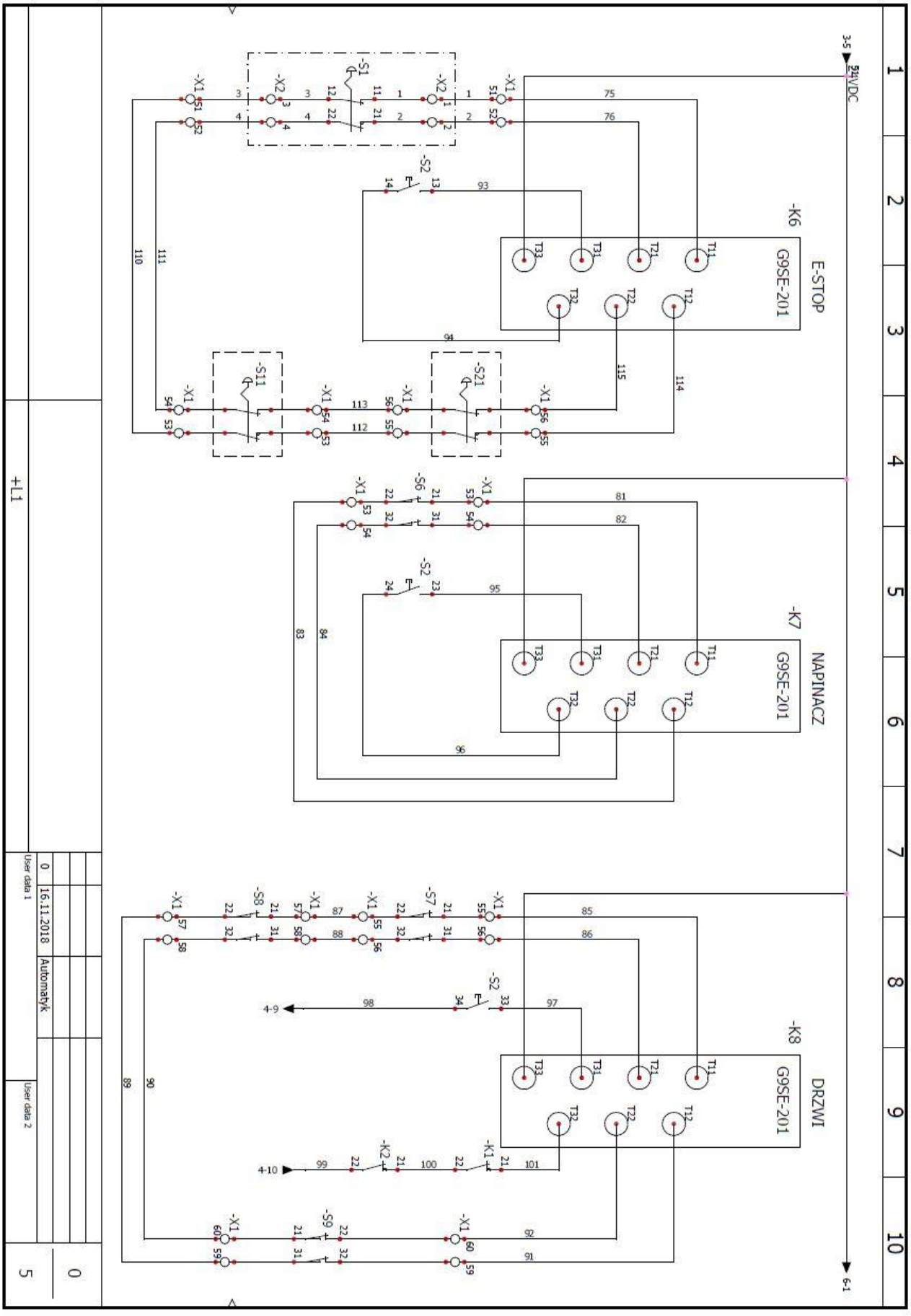
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G9SE-201
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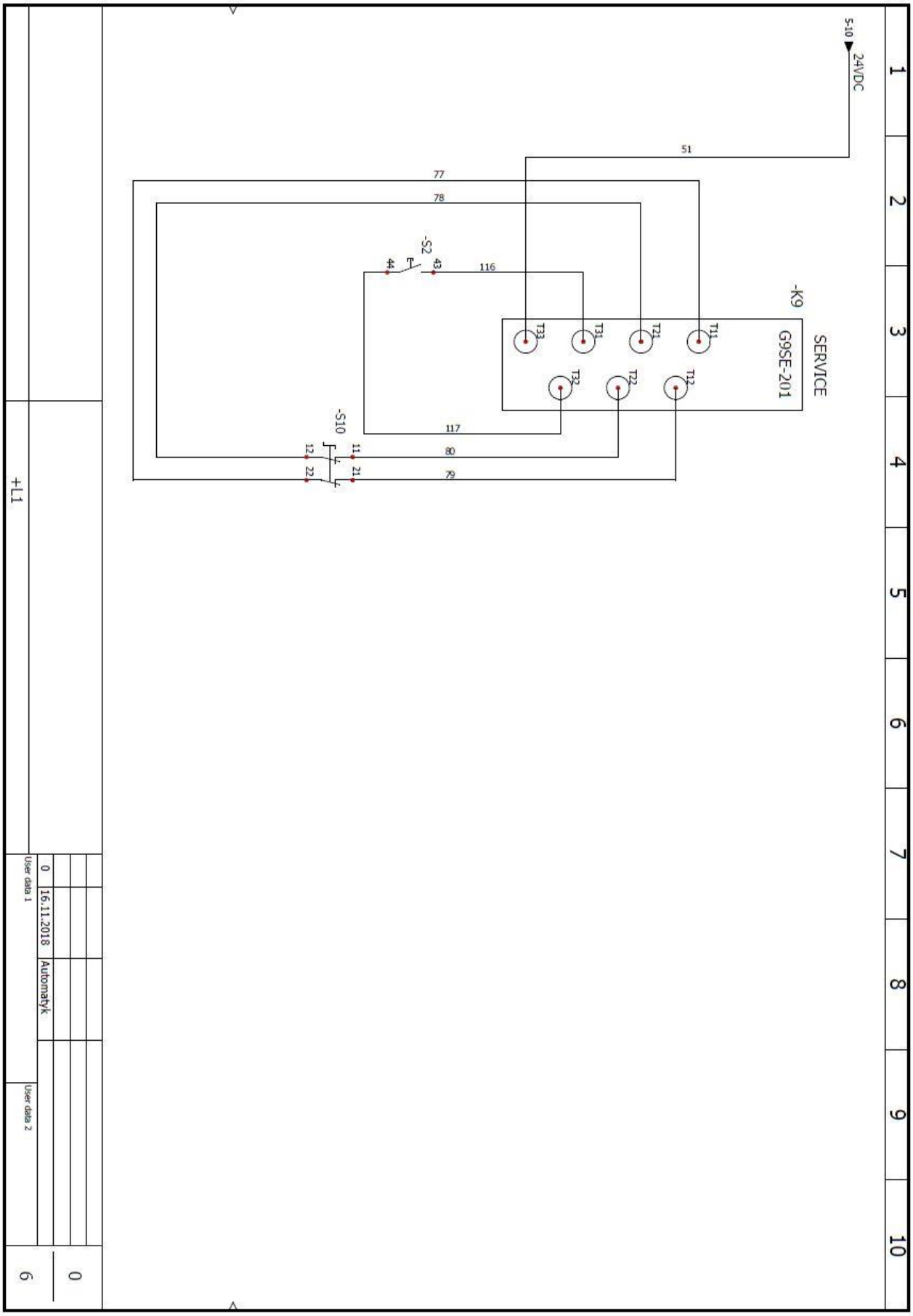
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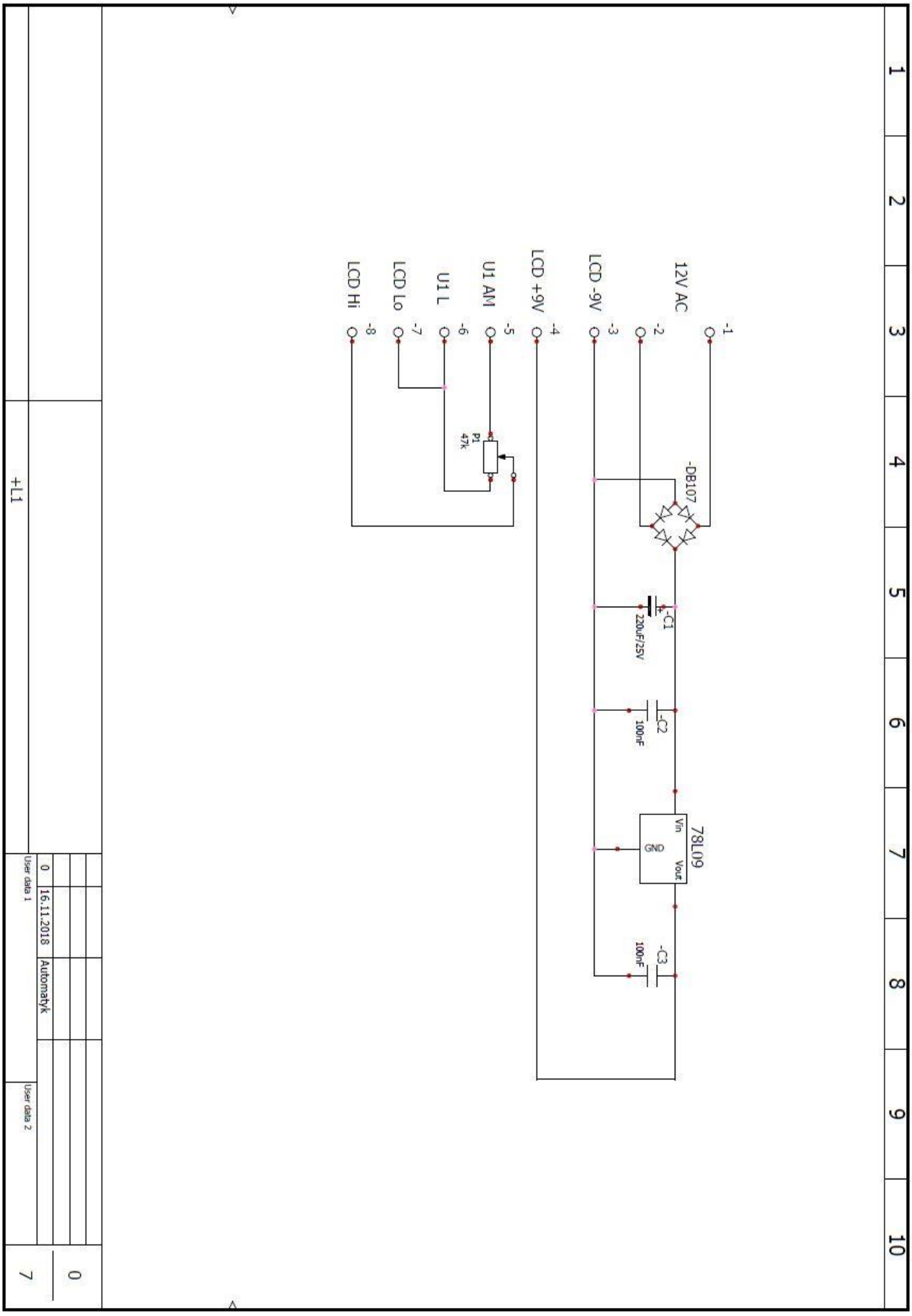
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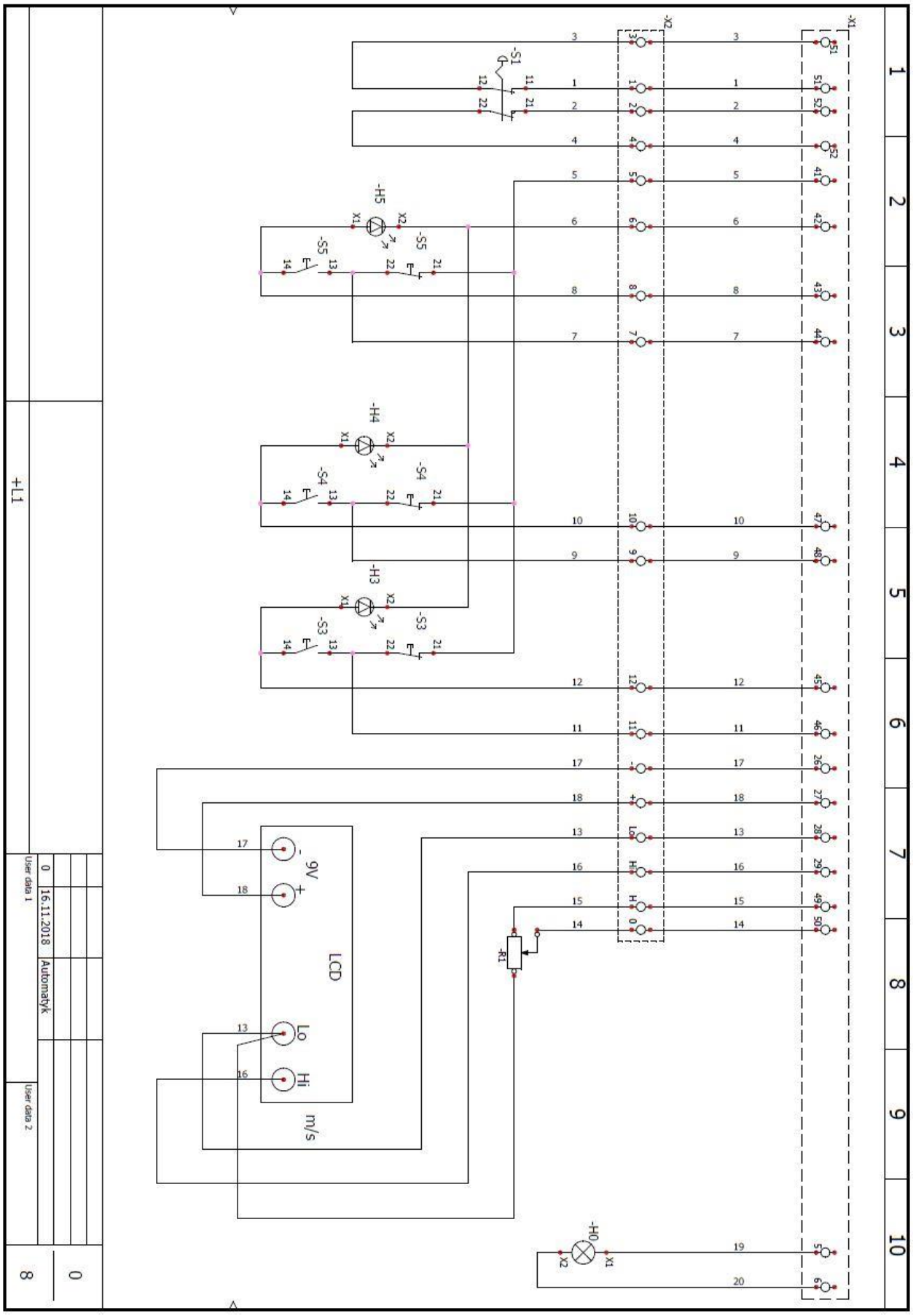
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Hi
m/s
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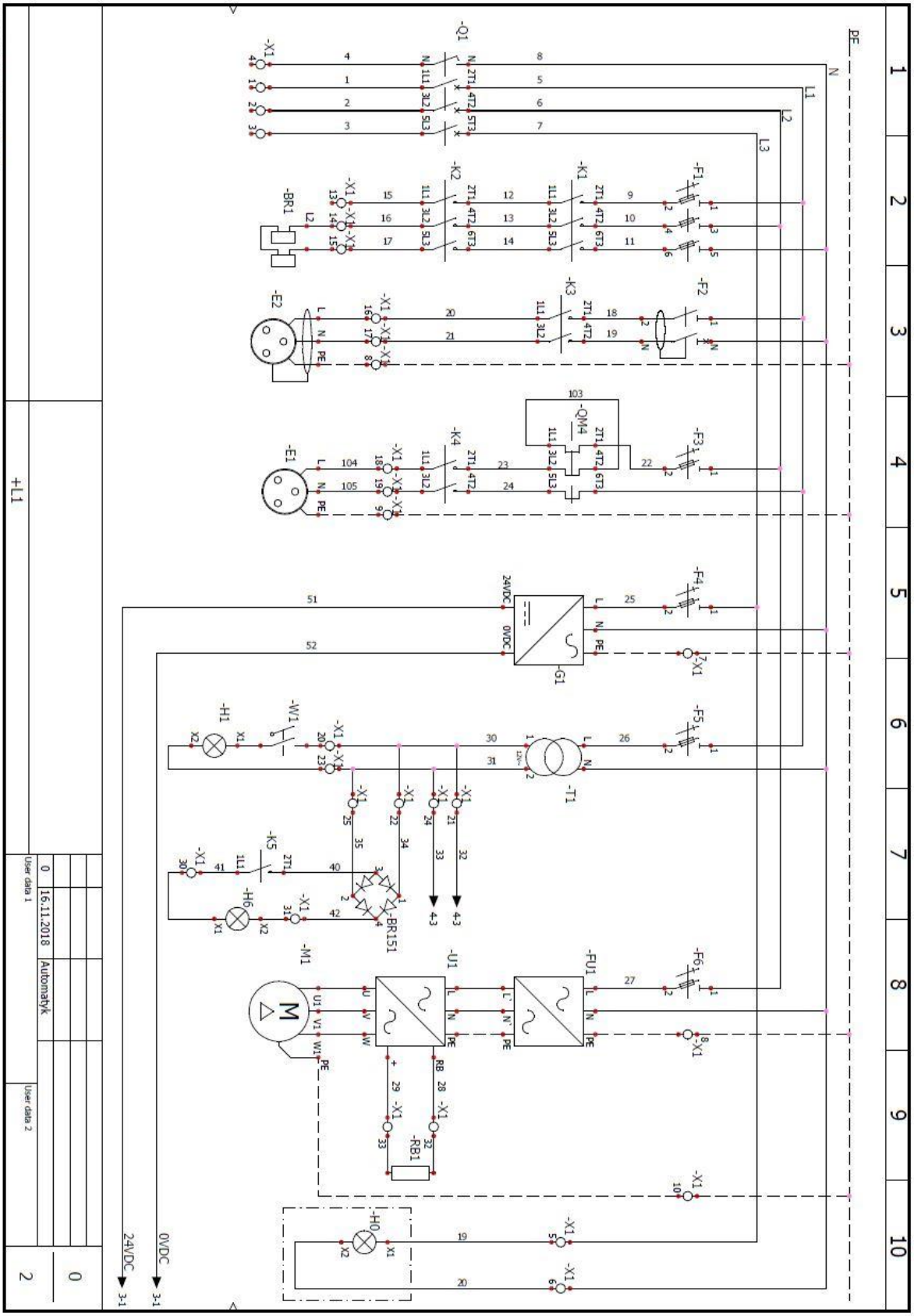
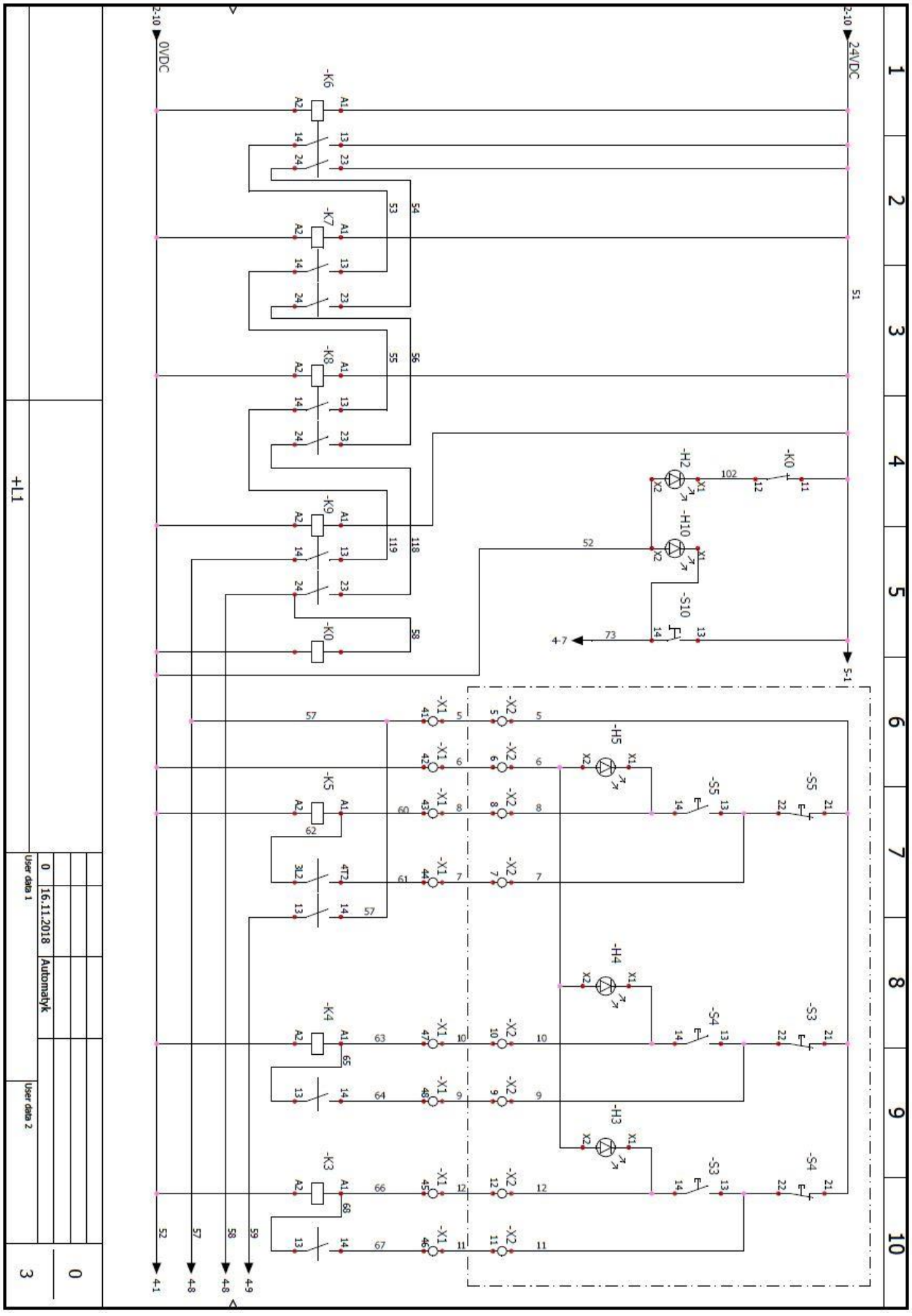
- Band knife machine R1000

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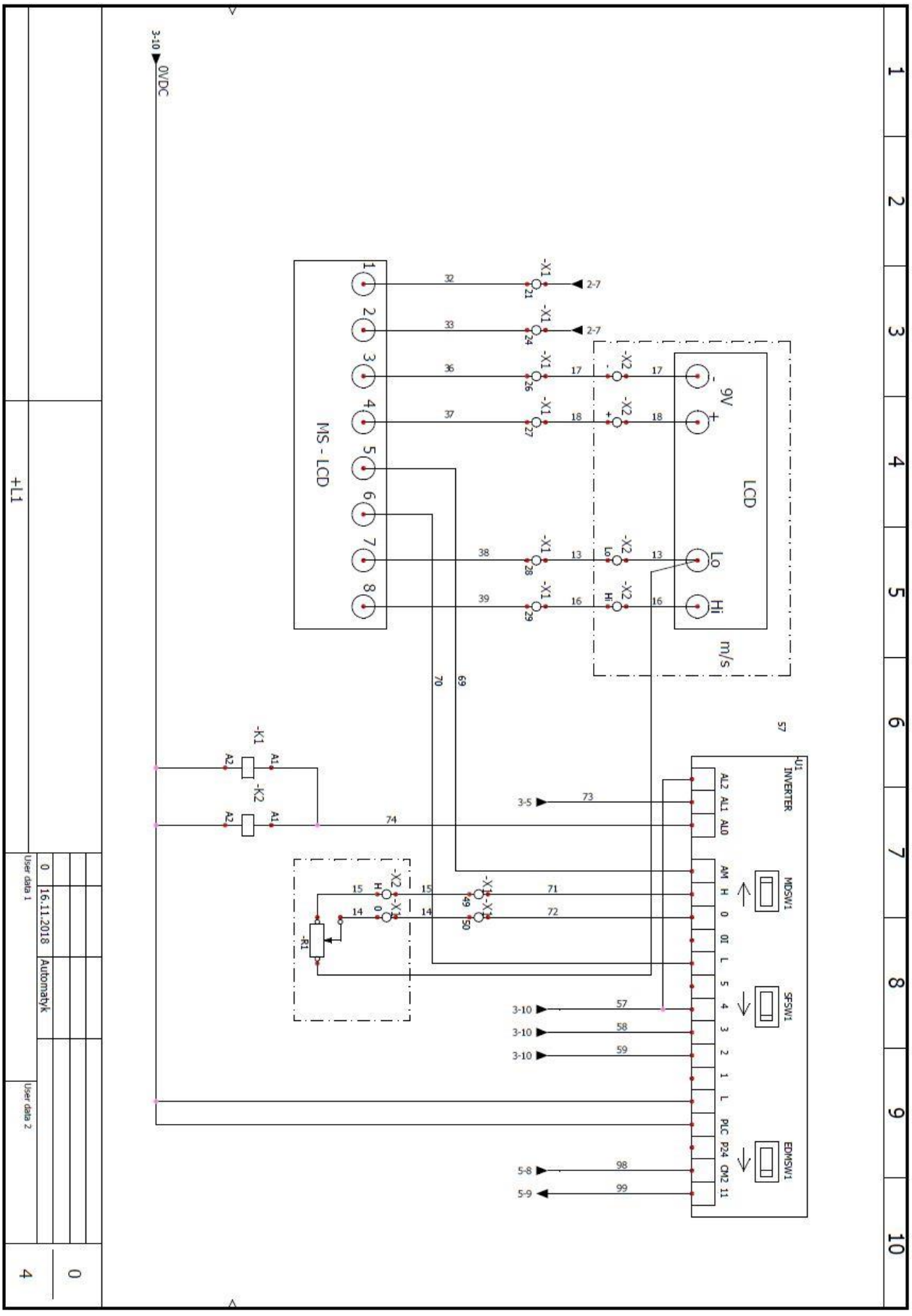
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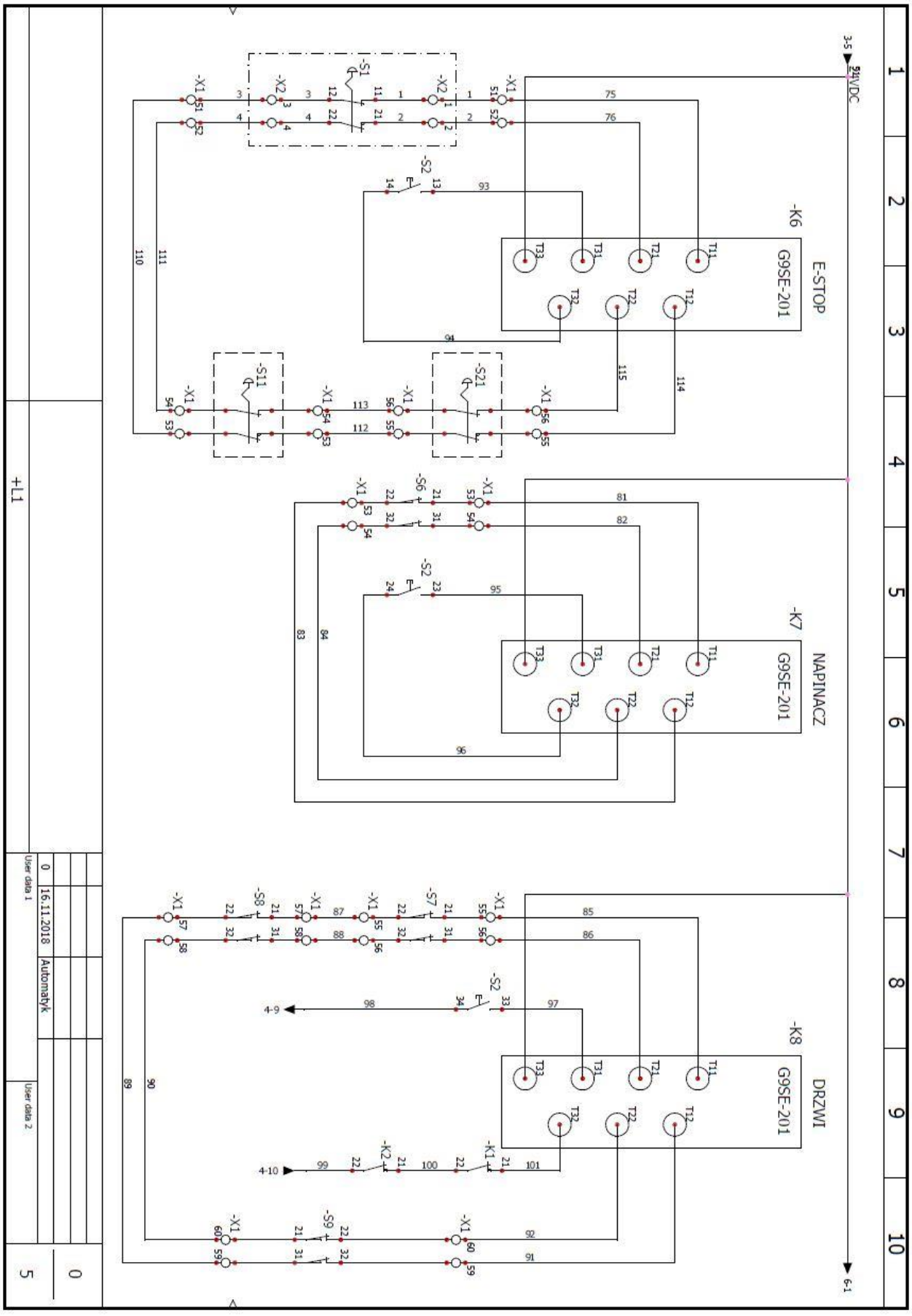
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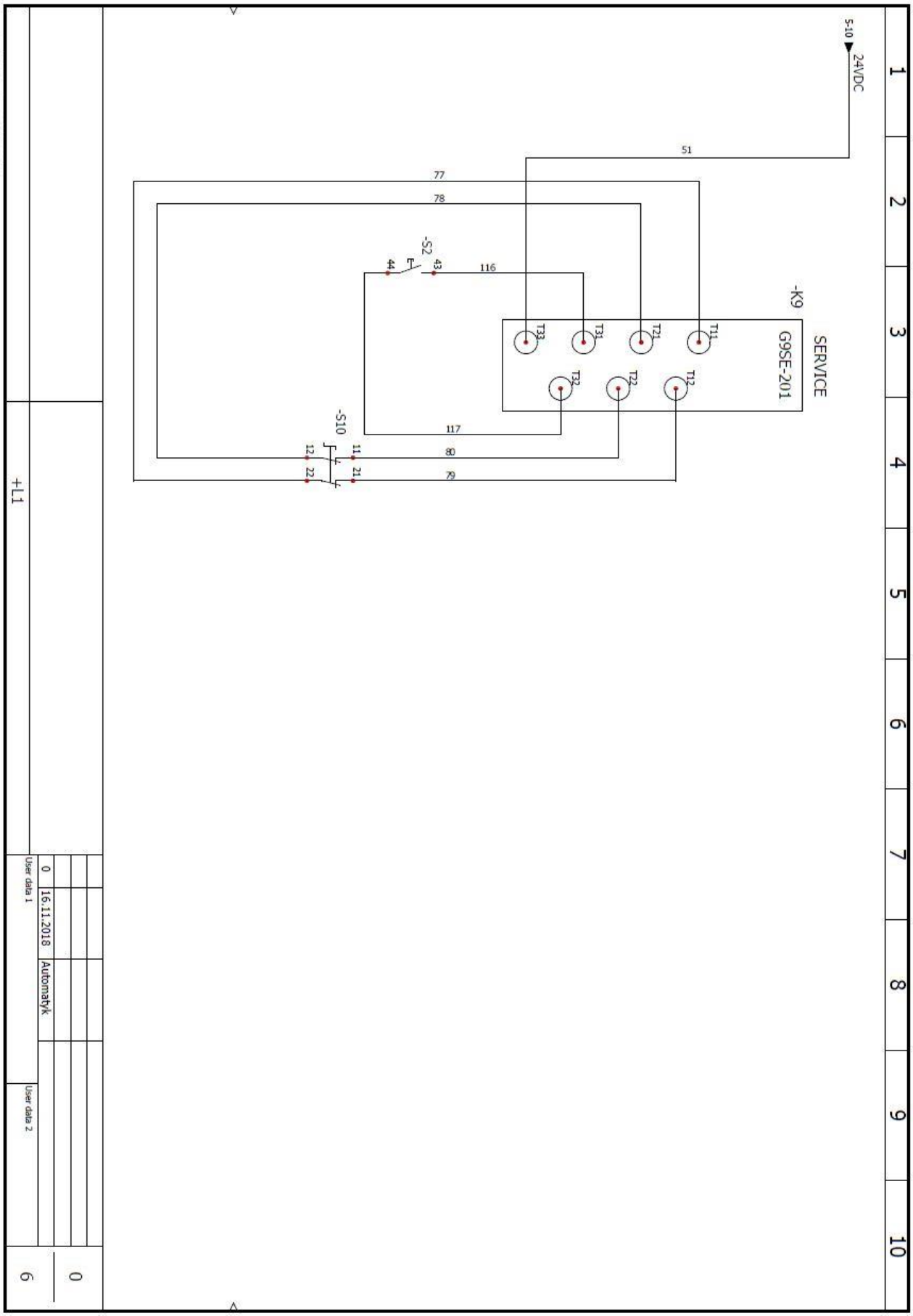
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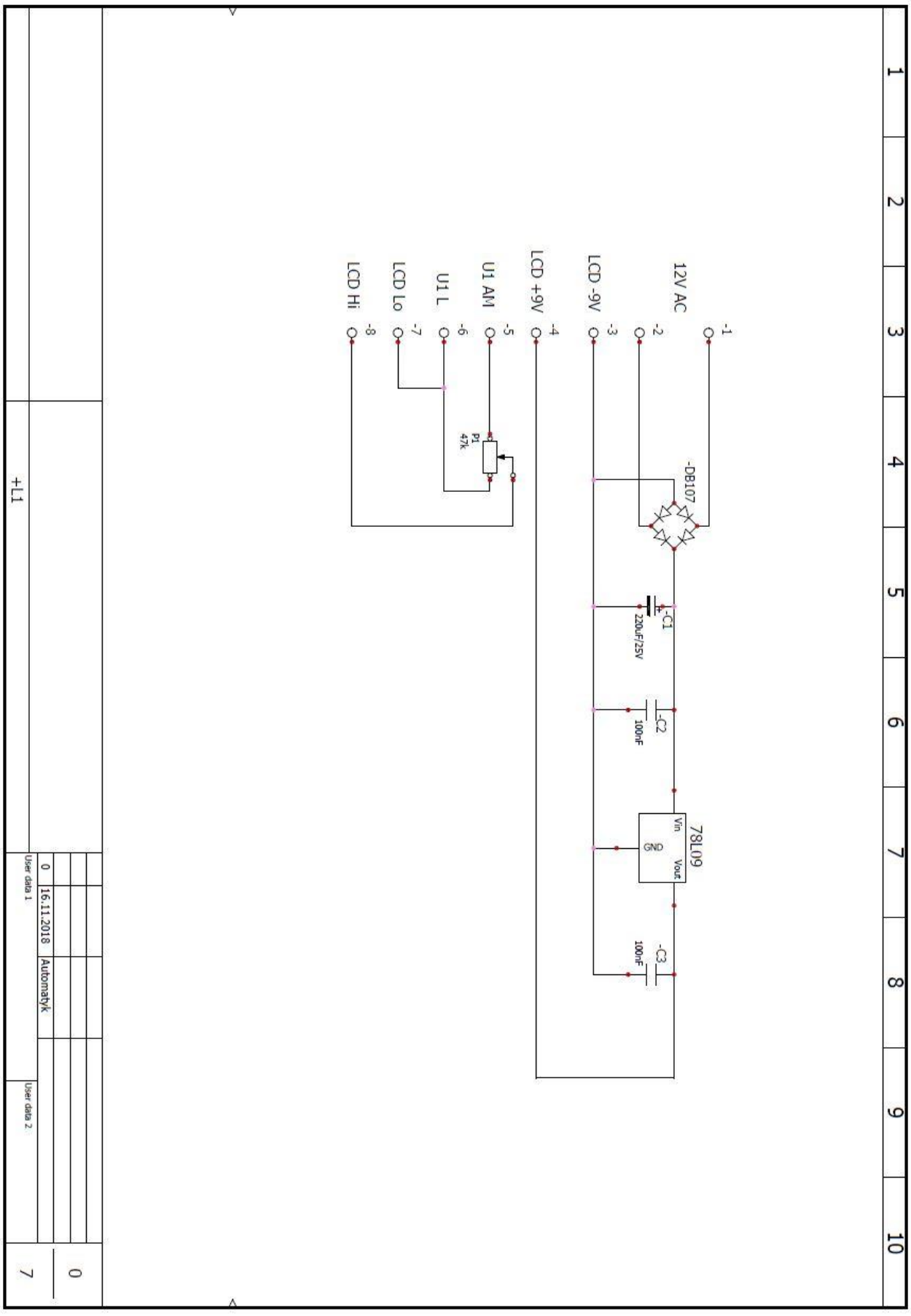
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78L09
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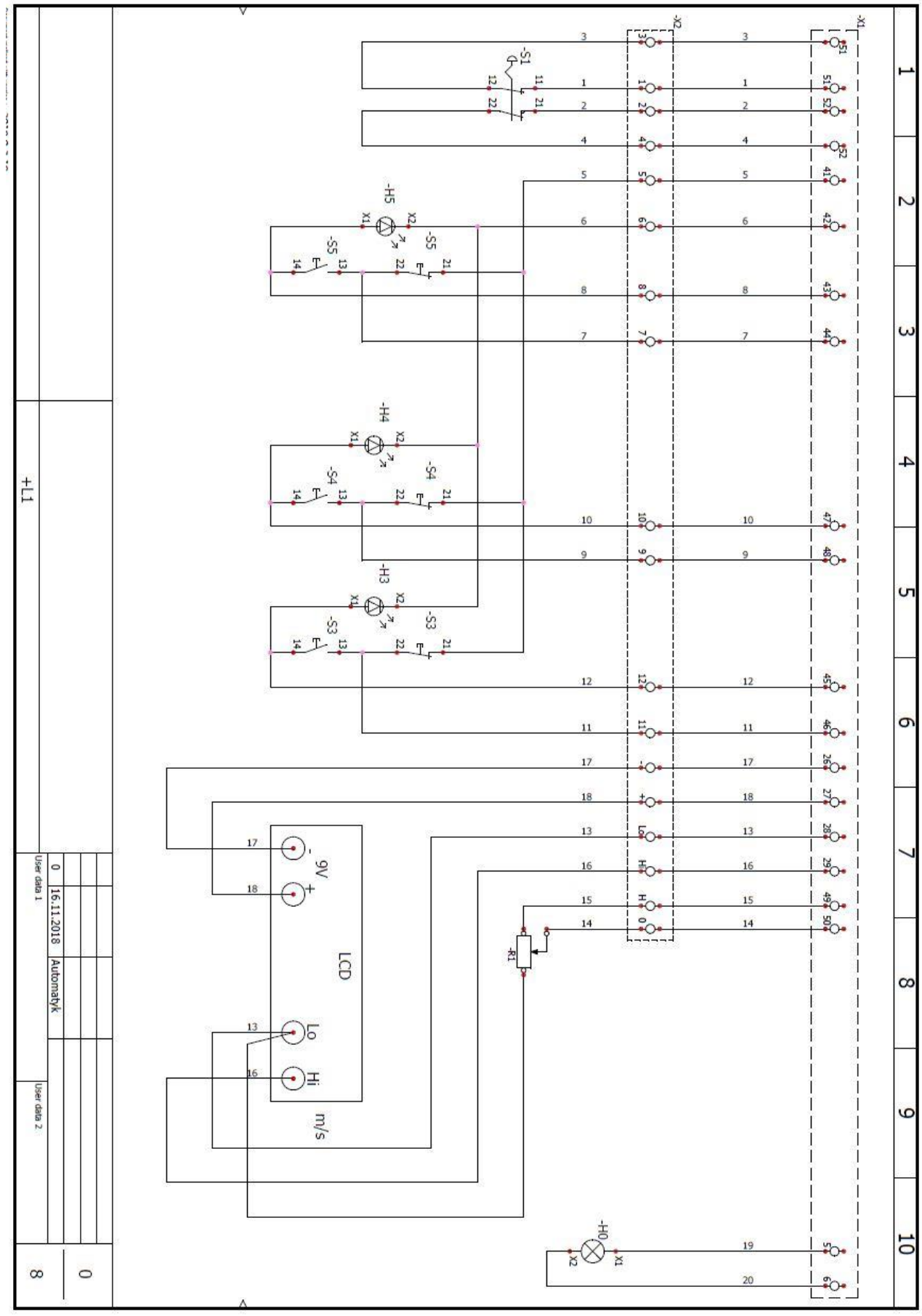
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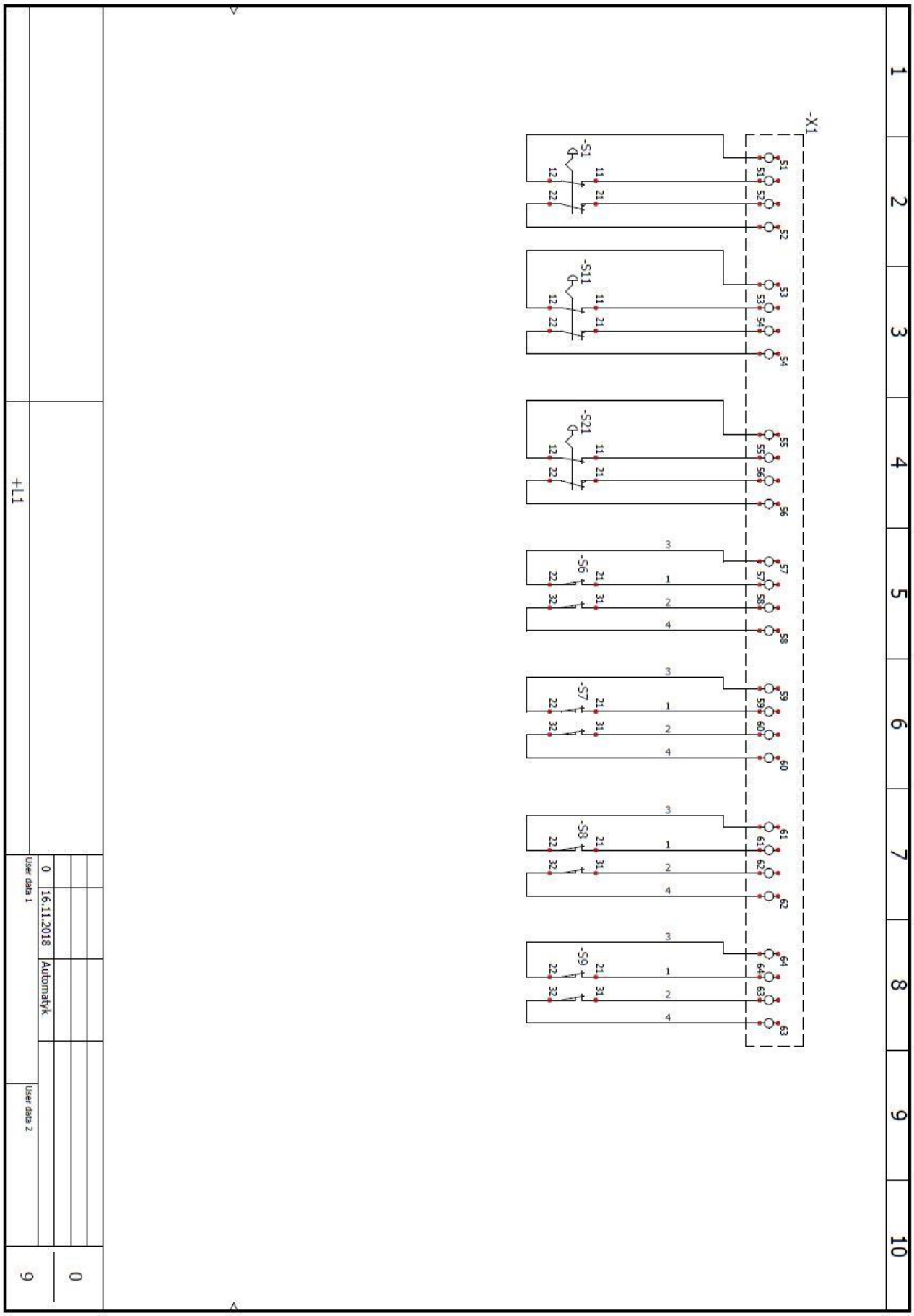
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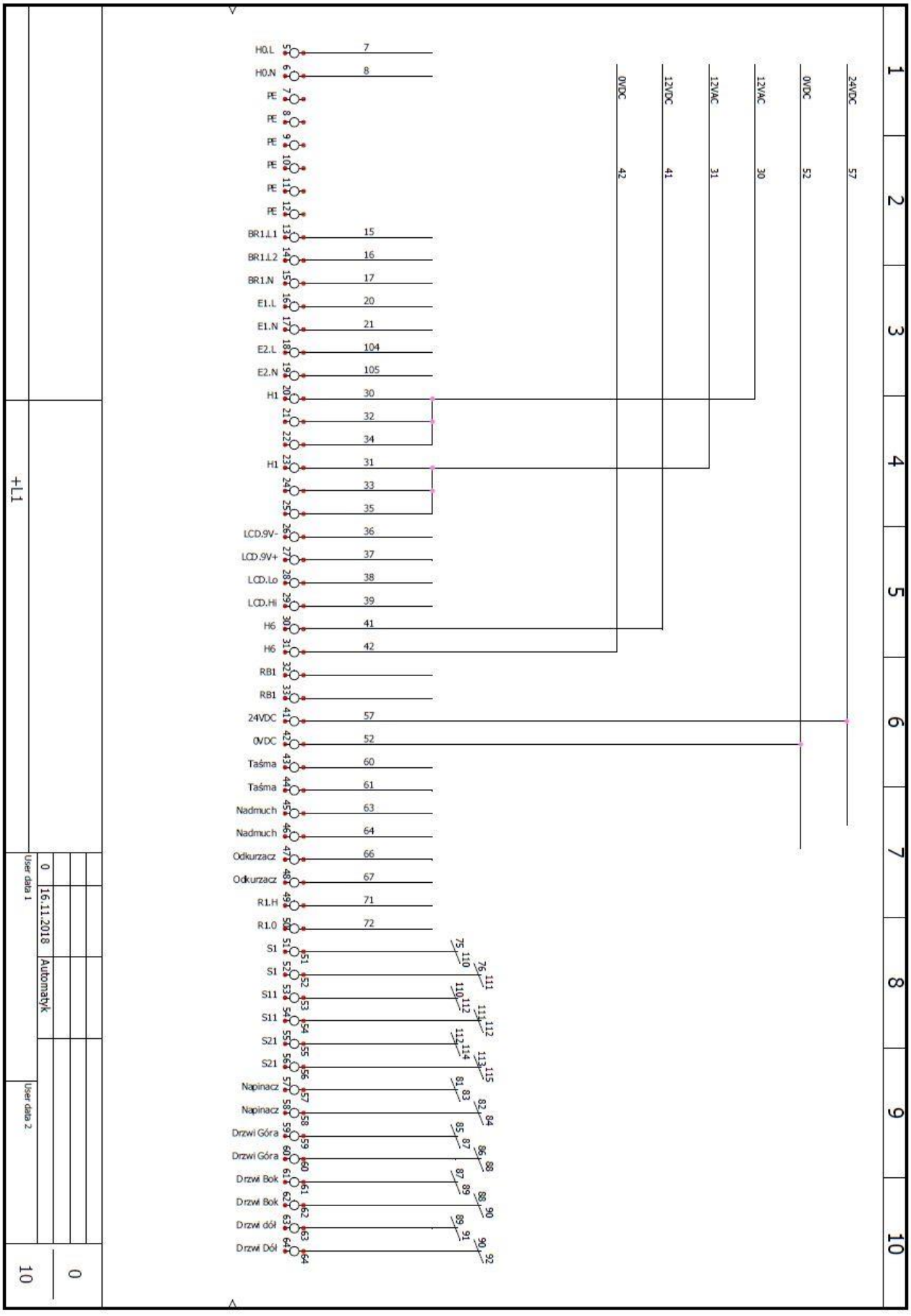
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H0.N
PE
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BR1.L2
BR1.N
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E1.N
E2.L
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H1
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RB1
RB1
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Taśma
Nadmuch
Nadmuch
Odkurzacz
Odkurzacz
R1.H
R1.0
S1
S1
S11
S11
S21
S21
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16.11.2018
Automatyk
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10

11. ANNEX II - TEMPLATE DECLARATION OF CONFORMITY EC / EU

The original declaration of conformity

EC declaration of conformity / EU

Band knife machine R750/R1000

- company and address of the manufacturer:
  FPUH Rexel sc Slawomir Jaśkowiak Aneta Jaśkowiak
  ul. Radziwoja 11
  61-057 Poznan
  Poland

- machine serial number: _____

Complies with all relevant provisions of the Directives:

- DIRECTIVE 2006/42 / EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006. On machinery, and amending Directive 95/16 / EC (recast) (Text with EEA relevance)

- DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 2014/30 / EU of 26 February 2014. On the harmonization of the laws of the Member States relating to electromagnetic compatibility (Recast) (Text with EEA relevance)

The references of the harmonized standards:

•	EN 1037: 1995 + A1: 2008	Safety of machinery - Prevention of unexpected start
•	EN ISO 12100: 2010	Safety of machinery - General principles for design - Risk assessment and risk reduction
•	EN ISO 13849-1: 2015	Safety of machinery - related parts of control systems security - Part 1: General principles for design
•	EN ISO 13849-2: 2012	Safety of machinery - related parts of control systems security - Part 2: Validation
•	EN ISO 13850: 2015	Safety of machinery - emergency stop function - Principles for design
•	EN ISO 13857: 2008	Safety of machinery - Safety distances to prevent reaching the upper and lower limbs to danger zones
•	EN ISO 14119: 2013	Safety of machinery - Interlocking devices associated with guards - Principles for design and selection
•	EN ISO 14120: 2015	Safety of machinery - Guards - General requirements for the design and construction of fixed and movable guards
•	EN 14886: 2008	Used plastics and rubber - cutting knife belt of porous blocks - Safety
•	EN 60204-1: 2006	Safety of machinery - Electrical equipment of machines - Part 1: General requirements IEC 60204-1: 2005

The person authorized to compile the technical file: Sławomir Jaśkowiak

Poznań, __/__/20__

The manufacturer

Sławomir Jaśkowiak

legal representative