



AL 500 ANC

Operating instructions

**Before transporting and using the machine,
please read the instructions thoroughly!**

Service and information

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7⁰⁰ – 16⁰⁰

Version:

4.17/ March 2024
rev. 1

BOMAR, spol. s r.o. © – Subject to modifications and amendments.

EC/EU Declaration of Conformity

1) 2) We:

BOMAR, spol. s r.o.

Těžební 1236/1

627 00 Brno, Czech Republic

Id. No: 48908827

declare herewith

that the following designated device based on its conception and construction as well as the design launched by us meets the relevant basic safety requirements of the decrees of the government.

This statement applies exclusively to the machine device in conditions in which it was brought to the market. It does not apply to parts subsequently added by the end user or to modifications performed subsequently by the end user.

In the event of any device modification not approved by us this declaration shall lose its validity

Name: **Circular Saw**

Type : **AL 500 ANC**

Serial number: 012-1000

Manufacturer **BOMAR, spol. s r.o., Těžební 1236/1, 627 00 Brno**

Product data

Determination: for cross dividing and cutting of rolled and towed bars and profiles made of aluminium, cooper and its alloys without angle cut

Description: Stand, table, cutting unit with the saw blade and drive, microniser, Pneumatic-hydraulic unit, el. switch board safety covers,

Pneumatic ☐ NO ☒ YES

Hydraulic ☐ NO ☒ YES

Control system ☐ NO ☒ YES

Technical data:

Blade speed

51 m.s-1

Cutting angle

0°

Characteristic cutting range

500 mm

Documentation:

Technical documentation for this machine device was elaborated in compliance with Government regulation no. 176/2008, Annex 7, part A.

The device meets relevant requirements of the given directives:

2006/42/EC

2014/30/EU

The applied harmonized standards, National standards and technical specifications:

ČSN EN ISO 12100:2011

+ Opr.1:2020 + Opr.2 :2021

ČSN EN ISO 4413:2011

ČSN EN 55011 ed.4:2017

+ A1: 2017+ A11:2020 + A2:2020

ČSN EN ISO 16093:2018

ČSN EN 61000-6-2 ed.4:2019

ČSN EN ISO 13857:2021

ČSN EN 60204 -1 ed.3:2019

ČSN EN IEC 61000-6-4 ed.3:2019

The product is safe on condition of the common and determined usage.

The conformity judging was performed according to §12, art..3a), of the Law no. 22/1997 Coll. as amended.

Brno, 15.10.2022

Point of issue, datum

BOMAR, spol. s r.o.
Těžební 1236/1, 627 00 Brno
Czech Republic
IČO: 48908827
DIČ: CZ48908827



Alfred Pichlmann, Managing Director

Name and function of the responsible subject,
signature

1) Name, address and identification number of the subject issuing the conformity declaration (producer of importer)

2) Person authorized to complete the technical documentation

!

If the equipment is installed without safety equipment offered by BOMAR, spol. s ro or its agents and used by the customer (or buyer) then EC declaration loses validity.
EC Declaration of conformity is valid only if customer (buyer) installed the BOMAR safety equipment with the machine or with some other with equivalent safety device in accordance with current applicable regulations and standards.
All machine elements and components that were built into the device by BOMAR, spol. s ro have been declared "identical" to a safety device, as offered by BOMAR, spol. s ro or its agents.

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1. Bezpečnostní pokyny / Sicherheitshinweise / Safety notes

The operating instructions must be read by the person, who keeps in touch with the machine before transportation, installation, using, servicing, reparation, stocking or removal!

The operating instructions include relevant information. The operator must familiarise himself with the install and operation, safety notes and machine servicing, because reliability and service life must be reached. The operating instructions must avoid risks, which are linked to work on the machine.

Attention!

The operating instructions must be available at the machine! Keep the operating instructions in good condition!

The machine operator must be familiar with the installation, operation and maintenance of machines and also with the safety instructions. Before transporting and using of the machine, please read the instructions thoroughly!

1.1. Machine determination

The standard circular saw **AL 500 ANC** is determined for cross dividing and cutting of bars and profiles made of aluminum **without cutting angle**.

The circular saw **AL 500 ANC** which is equipped with the device for blowing of chips from the space for the cutting blade away is determined for cross dividing and cutting of bars and profiles made of copper and its alloys without cutting angle. For this determination it is allowed to equip the saw only just with the complete device for blowing of chips from the space for the cutting blade away from producer Bomar spol. s.r.o.

Combustible materials are excepted for cutting!

Attention! The saw must be equipped with an exhausting device for extracting the chips from the blade area. Do not operate the saw without an exhausting device!

Any other usage and operation outside this range are unauthorized and the manufacturer/supplier does not accept any responsibility for any damages resulting from such misuse. **The operator has full responsibility!**

The machine is equipped with safety and protective guarding for operator and machine protection. Nevertheless, this safety and protective guarding cannot prevent injury. Service personnel must read this chapter and comprehend it, before he starts to work on the machine. **Always keep instructions about work safety!** Service personnel must take into account other aspects of the risk, which refer to the ambient conditions and the material.

Attention!

Consider the safety signs on the machine. Do not remove or damage them!

1.2. Protective clothing and personal safety

Wear fitting clothes! Loosely fitting clothes may be caught in moving machine parts and cause serious injuries.

Wear protective gloves! Material cuts and saw band have sharp edges and may cause injuries.

Attention!

Gloves can be worn only when manipulating with material or replacing parts! The machine and its accessories must be inactive! If the machine is running, you must not wear gloves! There is a higher risk of getting caught in moving machinery!

Wear protective shoes with antiskid soles! Unsuitable shoes may cause loss of balance and following injury. Dropped blank cuts may cause injuries too.

Wear protective goggles! Flung chips and cooling liquid may damage your eyes.

Always wear ear protection! Most of the machines generate acoustic pressure up to 80 dB and may damage your unprotected hearing.

Do not wear jewellery and always tie back long hair! Moving machine parts can catch jewellery or loose hair and may cause serious injuries.

Operate the machine only when you are fit enough for work. Illnesses or injuries diminish concentration.

Avoid machine work, which may jeopardize the safety of you and your colleagues!

Attention!

Mind the safety signs on the machine. Do not remove or damage them! Keep these labels always readable!

1.3. Safety instructions for machine operator

Attention!

*Machine can only be operated by a person older than 18 years!
Machine can be operated only by a person physically and mentally fit for this activity.*

Machine can only be operated only by one person at a time.

Machine operator is responsible for other people present near the machine.

The person who is operating the machine using the control elements (control panel and other) must not either alone or with help of other workers move the cut or otherwise machined material at the same time.

Follow the instructions and directives for work safety!

Read the operating instructions before you start to work on the machine! Keep the operating instructions in good condition!

Close covers before starting the machine and check, if the covers are not damaged. Damaged covers must be repaired or replaced immediately. Do not start the machine, if any cover is removed!

Attention!

Do not connect the machine to electricity if the door or any covers are removed. Do not touch the high voltage electrical equipment (transformers, motors, terminals or wiring).

- Check, if the electric cables are not damaged.
- Do not hold or manipulate the material during clamping or cutting!
- Do not operate the buttons and switches on the control panel wearing gloves! You may press a wrong button.
- Make sure, that there is nobody in the working area of the machine (the working area of the vice, the saw band, the saw arm etc.) during a working cycle and when starting the machine.
- Under no circumstances touch any rotating elements.
- Use the machine only when it is in a good condition!
- Check at least once in a shift, if the machine is not visibly damaged. If you discover any such damage, you must bring the machine to a halt and inform your superior!
- Keep your working area and machine clean and uncluttered! Ensure sufficient lighting in the working area.
- Take off any spilt water or oil from the floor and dry it immediately to avoid a possibility of injury.
- Do not touch the cooling liquid with bare hands!
- Do not adjust the cooling liquid nozzle if the machine is running.
- Do not remove the chips from the working area of the machine, when the machine is running!
- Do not use compressed air for machine cleaning or for chip removal!
- Use protective gear for chip removal!

1.4. Safety notes for the servicing and repairs

Attention!

Only a qualified professional can carry out the servicing and repairs of the electrical equipment! Take special care during the work with electrical equipment. High voltage shock can have fatal consequences! Always follow the work safety instructions! Otherwise, there is possibility of heavy injury!

Switch off the main switch and lock it, before you start service work! If you have the Practix type of machine, disconnect it from electrical network. This way you eliminate a possibility of starting the machine accidentally.

Take care when manipulating the frequency converter. It is still energized for 20 minutes after machine shutdown.

Always adhere to the safety instructions!

Only an authorized professional can carry out the servicing and repairs.

For parts replacement, use only those, which are identical with the originals. Otherwise, there is possibility of health hazard.

Use only recommended types of hydraulic oils, oils and lubricants!

Do not remove or lock the limit switches or any other safety equipment!

Any use of the saw, accessories or machine parts other than that intended by BOMAR, spol. s r.o. company is not permitted. The guarantee on this product will be lost afterward and BOMAR, spol. s r.o. takes no responsibility for damage caused.

Do not turn the machine on if all covers are not in place.

1.5. Safety instructions for laser radiation sources

Laser radiation sources may be used on the machine.

Warning signs and information about the corresponding laser class are placed near each laser source.

It is forbidden to look into the laser beams!

Depending on the design and optional equipment of the saw, laser radiation sources can be located in particular:

- on the saw feeder
- before the main vice of the band saw
- on a safety fence (laser barrier)
- on the section line projection device



Commonly used laser safety classes:

1 (laser barriers)

1M (laser barriers)

3R (Laser-Liner)

Attention!

It is necessary for correct functionality of a laser to regularly check the patency of the laser ray on the sensor and to clean the laser from impurities (clean rag + spirit) after each shift. Be careful during the cleaning in order the laser was not been scratched and broken!.

1.6. Safety machine accessories

The machine is equipped with safety accessories. It protects the operator from injuries and the machine before damage. The safety accessories are blocking accessories, emergency switches and covers. Check once in a week the function of the safety accessories. If the safety accessories are functionless, you must stop work and repair or change the safety accessories.

Enhanced risk!

Do not come into or intervene in the cutting area. Otherwise, there is possibility of heavy injury.

1.6.1. Emergency Stop Switch

Emergency Stop Switch is used for emergency switching – off the machine in case defect or health hazard. By pressing **Emergency Stop Switch** will immediately stop all dangerous machine movements.

If any damages or fault appears, immediately press Emergency Stop Switch!

It is possible to release the pressed button by twisting of the upper part of the button.

The **Emergency Stop Switch** is placed at the control panel of the machine.



1.6.2. Workplace cover

If the cover opens during the operation, the end switch will disconnect, the machine will stop immediately and cannot be operated even in the adjustment (service) mode.

The machine can only be put back into operation after switching on the main switch, closing the cover and activating the safety circuits of the machine.



1.6.3. Cover of the space for the saw blade

A time lock is installed at the cover, and the time lock is activated and locks the cover whenever the cover is closed and the machine's safety circuit is closed.

When the cover is secured with the time lock, the cover can only be opened if the following conditions are met:

- **the machine is switched on by the main switch** (under voltage)
- **the safety circuit is deactivated** (emergency stop switch pressed or workspace cover opened)

After meeting both conditions for opening the cover, **the cover is still secured by the time lock for some time period, the length of the time period is set by the manufacturer to min. 60 sec.** (The time for which the time lock is closed corresponds to the time required to stop the saw blade speed completely.)

Warning!

After deactivation of the safety circuits of the machine, which occurred during the rotation of the disc, the disc still rotates for a certain time before it is completely stopped.

It is forbidden to overcome the safety elements for the time protection of the cover for the saw blade, the rotating blade can cause serious injuries!



If the cover of the space for the saw blade is opened, the machine safety circuit is opened and it is only possible to control the vertical movements of the blade via the corresponding icons on the screen for setting the service parameters.

After the intervention in the space for the saw blade, the machine can only be put back into operation after switching on the main switch, closing the cover and activating the safety circuits of the machine.

1.6.4. Exhaustion

The machine is prepared for the connection of an exhausting unit that is not a standard part of the machine.

The exhausting system must provide for the extraction of the chips, especially from the area of the cutting blade.

Caution!

It is forbidden to cut a material until the suction device is not switched on!

Chips which can be piled in the space for the saw blade can cause the machine damage!

Caution!

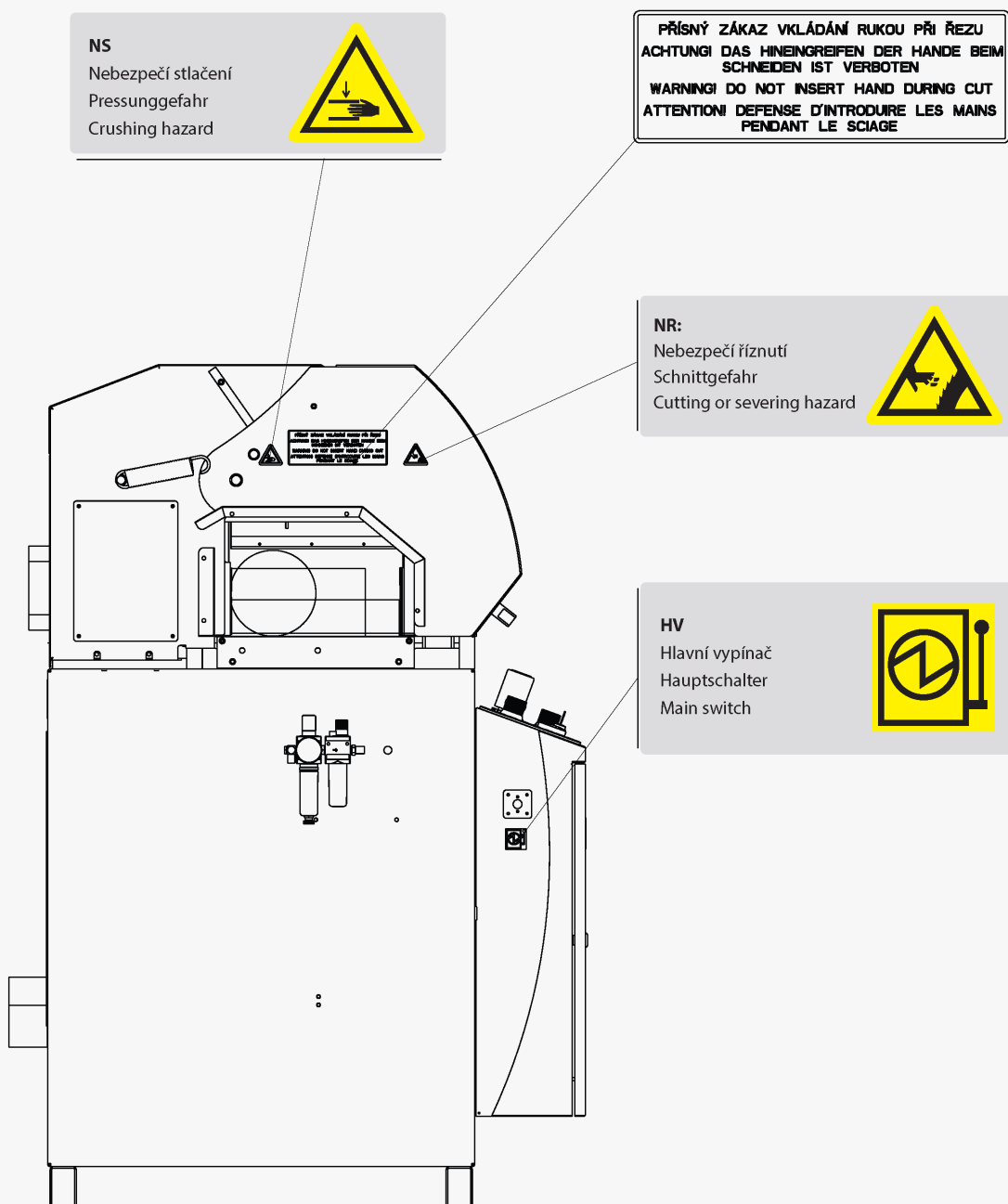
If such material whose cutting products can have explosive properties should be cut, the machine must be equipped with an exhausting unit with sufficient protection against explosion in the area of the exhausting device!

1.7. Umístění štítku stroje / Maschinenschild position / Position of machine label



Machine label is located at the rear of saw pedestal.

1.8. Umístění bezpečnostních značek / Verteilung der Sicherheitszeichen / Position of safety symbols



2. **Dokumentace stroje / Dokumentation der Maschine / Machine documentation**

2.1. Technická data / Technische Daten / Technical data

Hmotnost stroje / Maschinengewicht / Machine weight:	
• Hmotnost / Gewicht / Weight	530 kg
Rozměry stroje / Maschinengröße / Machine size :	
• Délka / Länge / Length	2080 mm
• Šířka / Breite / Width	1110 mm
• Výška / Höhe / Height	1630 mm
Elektrické vybavení / Elektrische Ausrüstung / Electrical equipment:	
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400 V, 50Hz, TN-S
• Příkon / Gesamtschlosswert / Total Input	4,4 kW
• Max.jištění / Max. Vorschaltsicherung / Max. Fuse	16 A
• Krytí / Schutzart / Protection	IP 54
Akustický tlak / Schalldruckpegel / Acoustic pressure:	
• AL 500 ANC	$L_{Aeq} = 76,3$ dB
Pohon / Atrieb / Drive:	
• Typ / Typ / Type	2P, 230/400 V-50 Hz (3A100 2E00A, 6T3, 100 LB2)
• Výkon / Leistung / Output	4 kW
Tlak vzduchu/ Luftdruck/ Air pressure	
• p _{min}	0,5 MPa = 5 bar
• p _{max}	0,6 MPa = 6 bar
Rozměr kotouče / Sägeräderndimension / Blade size:	
Ø500 × Ø32 × 4,1 mm	
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:	
51 m/s (kotouč / rädern / blade Ø500)	
Minimální (bezpečný) úchop pro pilu bez horního upínání/ Min. (sicherer) Griff für Säge ohne Spannung oben/ Min. (safe) grip for a saw without any upper clamping	
• Úchop / Griff / Grip	10 mm
Minimální (bezpečný) úchop pro pilu s horním upínáním na podavači/ Min. (sicherer) Griff für Säge mit Spannung oben am Vorschubspannstock/ Min. (safe) grip for a saw with the upper clamping at the feeder	
• Úchop / Griff / Grip	100 mm

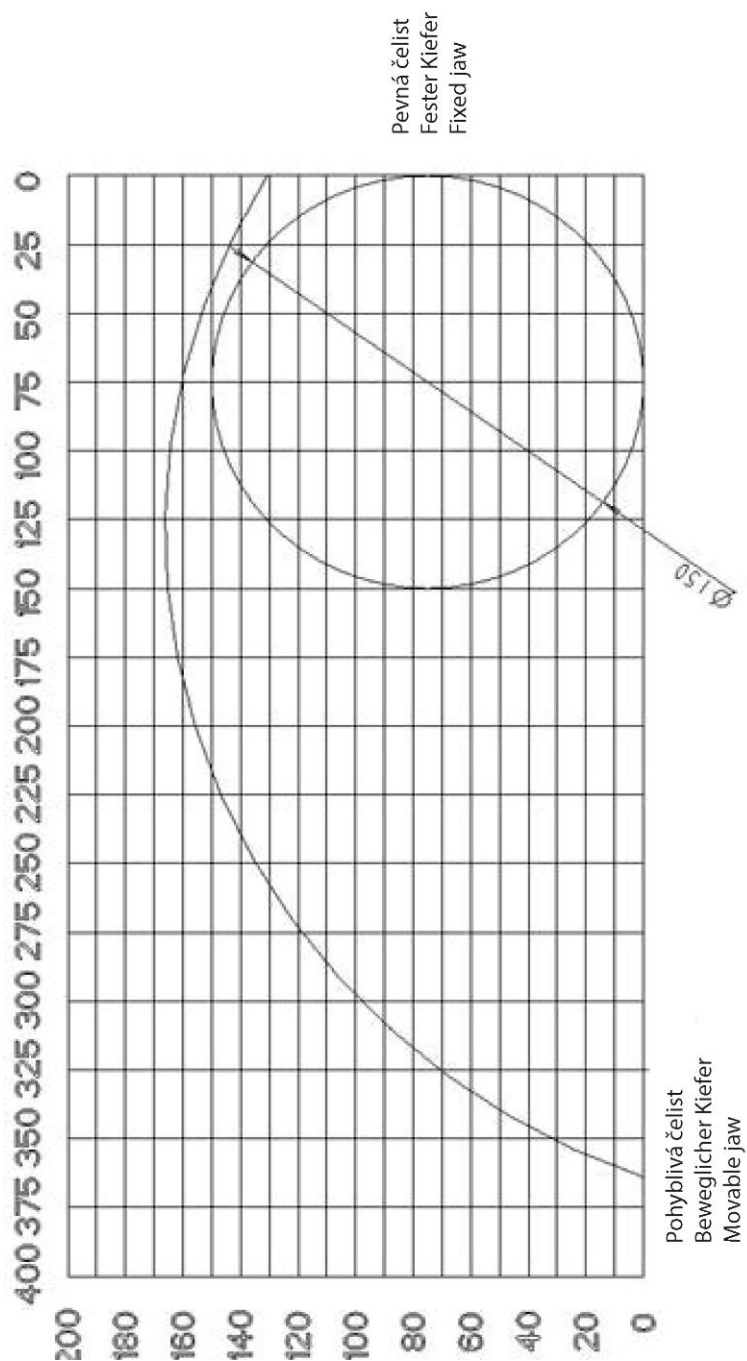
Level of acoustic pressure:

Equivalent level of acoustic pressure A (noise) at operator position are $L_{Aeq} = 76,3$ dB. Mentioned values are levels of emission which doesn't have to represent safe levels. Factors which influence real level of acoustic pressure on machine operator are: working place characteristics, cut material, saw band. These factors have significantly influence on acoustic pressure.

Caution!

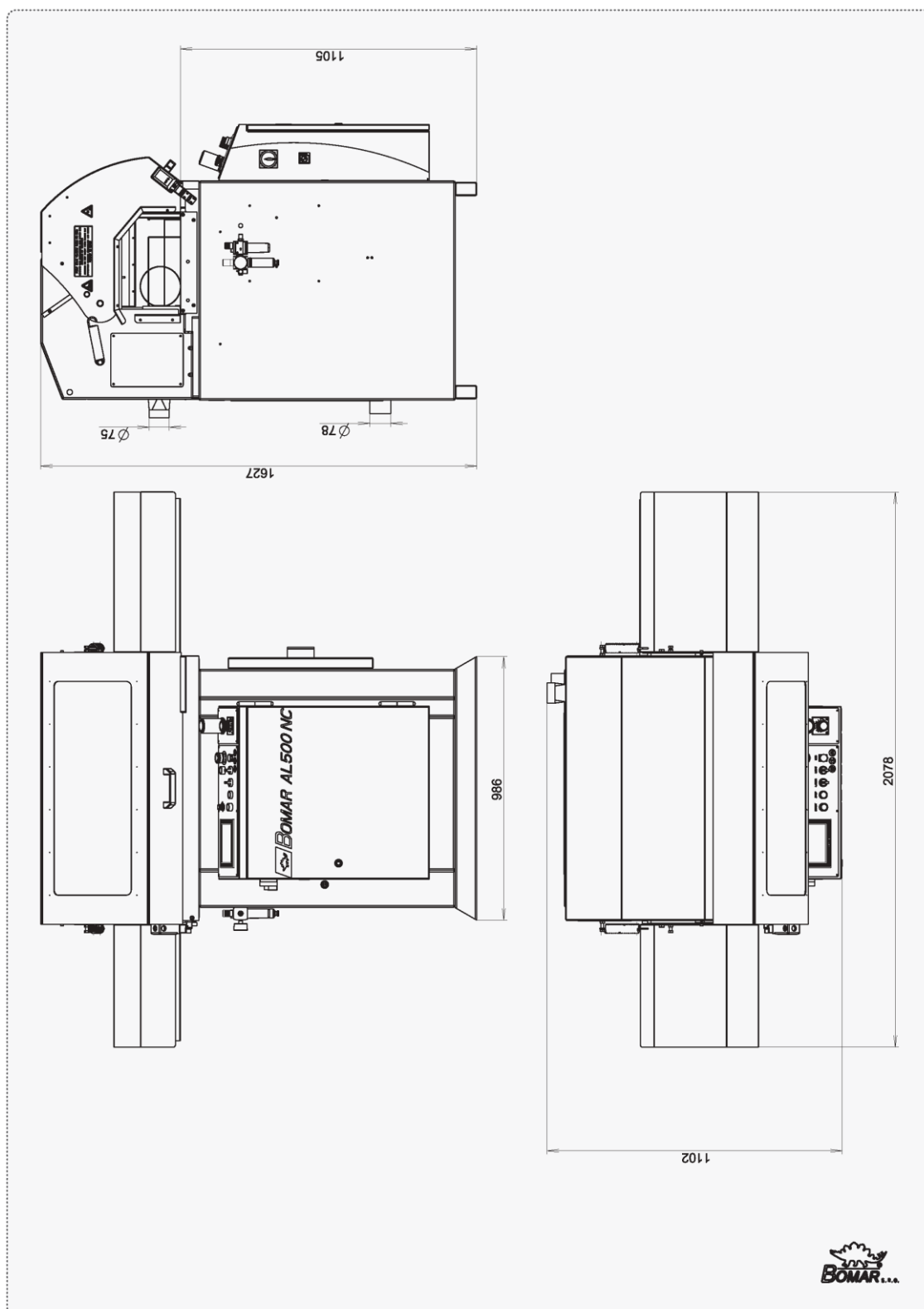
Failure to observe the specified parameters - especially the blade diameter, recommended speed (cutting speed) and cutting ranges - will affect cutting quality and cutting process safety! Risk of machine damage and injury!

2.2. Řezné rozsahy Schnittbereiche Cutting sizes

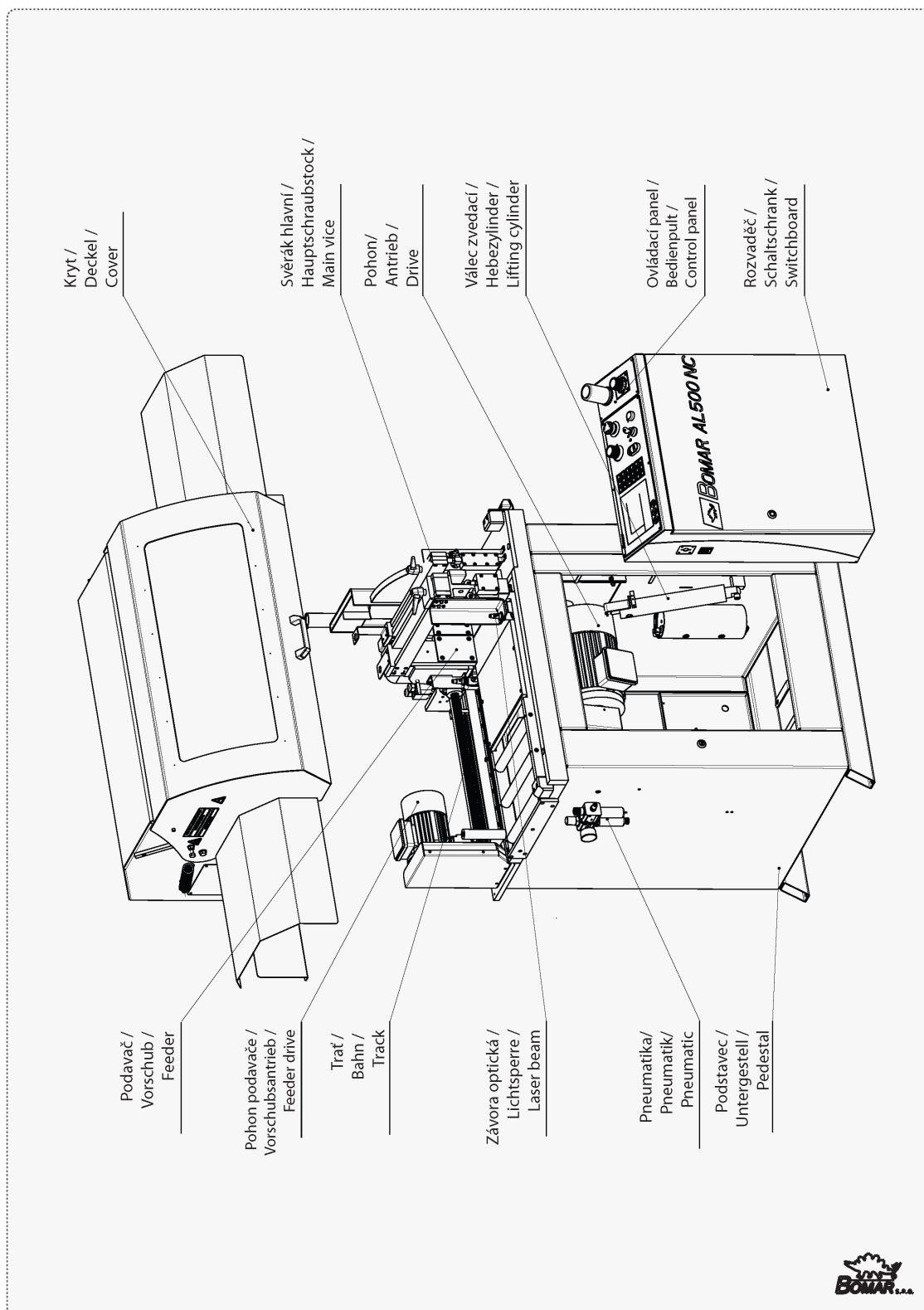


2.3. Rozměrové schéma / Aufstellzeichnung / Installation diagram

Dokumentace stroje
Dokumentation der Maschine
Machine documentation



2.4. Popis / Beschreibung / Description



2.5. Transportation and stocking

2.5.1. Conditions for transportation and stocking

Keep recommendations for the manufacturers for transportation and stocking! If the recommendations are not kept, damage can occur to the machine.

- Don't use a forklift truck for handling the machine, if you do not have license for it!
- Don't move under suspended loads! Fault in lifting device may cause serious injury. Keep a safe distance from the machine during the transport.
- Temperature of the air from -25°C to 55°C , for a *short term* (max. 24 hours) temperature of the air until 70°C
- Do not expose the machine to radiation (for example microwave radiation, ultraviolet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.
- Take measures, to prevent damage by dampness, by vibrations and by shakes.

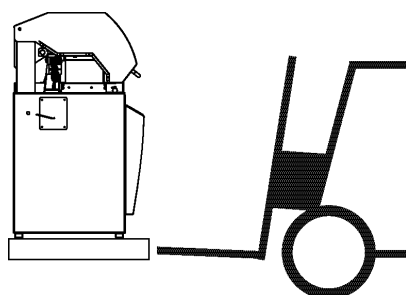
2.5.2. Transport and stocking preparations

- Close the vice and thoroughly oil all blank surfaces.
- Lower the saw frame to the lowest position.
- Fasten all loose parts securely to the machine.
- Pack and wrap the control desk securely to avoid damage during transport.

Fix the stickers stating the minimum approximate machine weight to at least five well visible places.

2.5.3. Transport and stocking

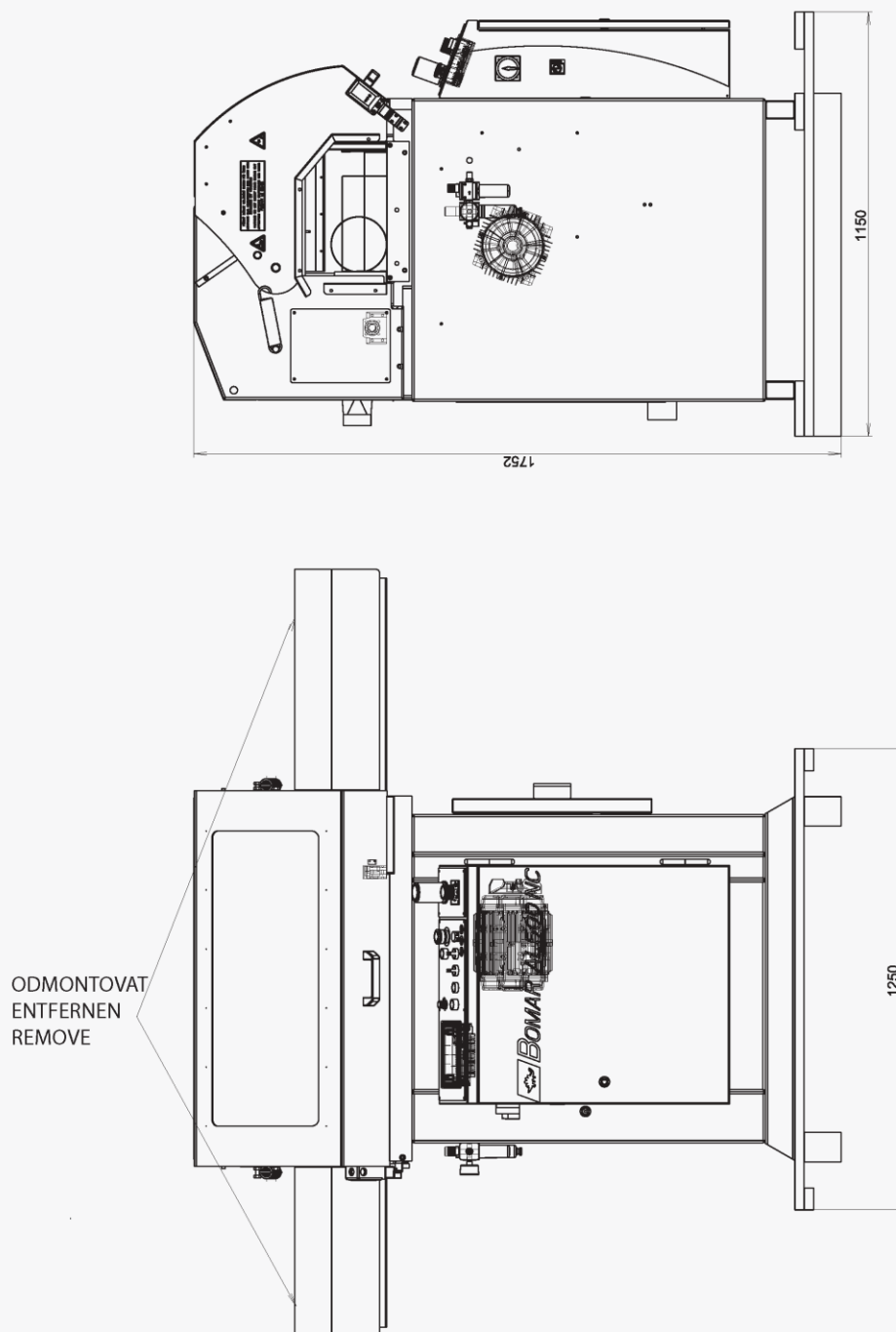
Handle the machine only with the hand pallet truck or the forklift truck! If the machine is equipped with the shackles in the pedestal, you can use the suspension cable and the crane.



- Make sure that the hand pallet truck; the forklift truck or the crane had sufficient capacity.
- Make sure that the van or the trailer had sufficient capacity.
- The machine must be secured during transportation.
- Screw on the palette to the floor of the van or the trailer.
- Be careful that the machine is not damaged during transportation.

It is forbidden to handle the machine any other way, than it is written in this operating instructions, the machine can be damaged!

2.5.4. Transportní schéma / Transport schema / Transport scheme



2.6. Activation

2.6.1. Machine working conditions

Keep the conditions of the manufacturer for machine operating! If recommendations are not kept, damage can occur to the machine.

The manufacturer warrants the correct function of the machine for these conditions:

- At temperature air from **10°C to 40°C**, the temperature average during 24 hours must **not exceed over 35°C**.
- At relative dampness of the air in the extend from 30% to 95% (not concentrate)
- Altitude lower than 1000 meters.
- Do not expose the machine to the radiation (for example microwave radiation, ultra-violet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.

2.7. Circular saw unpacking and assembling

Remove the packing from the machine and unpack all parts.

Attention!

Switch off the main switch and lock it, before you start assembly! Otherwise, there is possibility of hazardous machine starting.

2.7.1. Machine installing and leveling

Check the floor supporting capacity before machine installing. If the floor capacity does not agree with requirements, you must prepare the necessary base for the machine.

Minimal requirement:

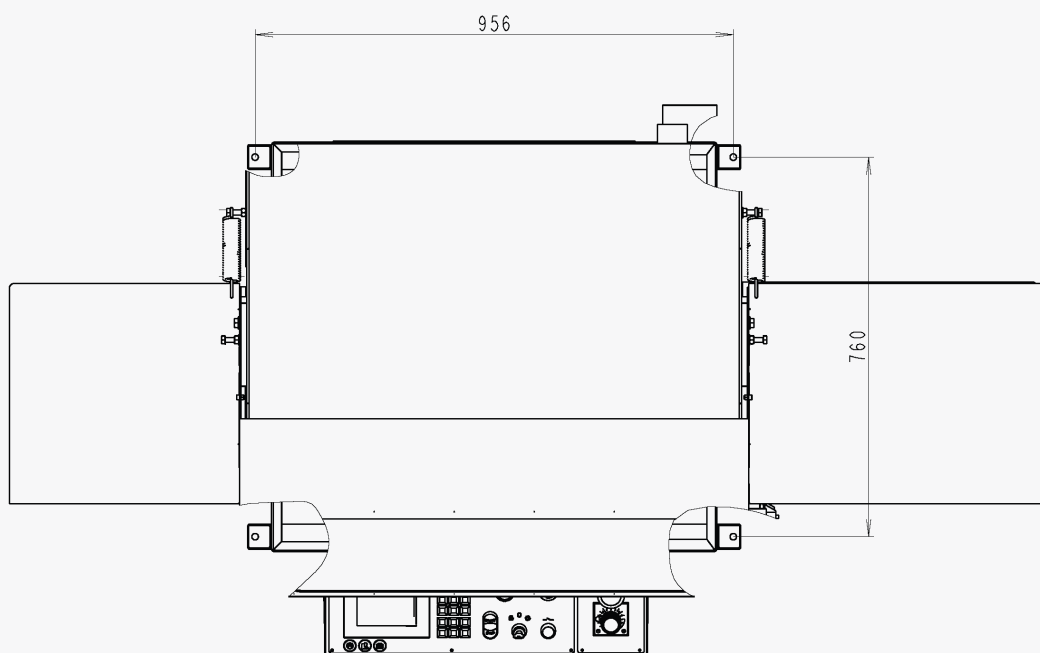
machine weight – AL 500 ANC – 530 kg

+ weight of accessories

+ maximum weight of material

- The machine must be leveled at the horizontal position. All feet of the machine must touch with the floor after leveling
- The machine must be leveled by means of the calibrated spirit level. Spirit level is put on the vice area. Set the roller conveyors according to the spirit level.
- For machine leveling, take care that there is sufficient available space for operation, repair work, servicing of the machine and handling the material..
- The machine including appended parts and accessories must be visible from the place of operation.

2.7.2. Kotevní plan / Verankerungsplan / Grounding plan



Únosnost podlahy/ Bodenbelastbarkeit/ Floor load capacity min. 1000 kg/m²



Kotvicí materiál / Verankerungsmaterial / Grouding material

- 4x Chemická hmoždina / Chemische Dübel / Chemical plug – ø12 mm
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 120 mm
- Šrouby / Schraube / Screws – 4xM10

- Šrouby podložit deskami o min. rozměrech P10×100-100
- Die Schrauben mit Platten mit Minimaldimensionen P10×100-100 unterlegen
- Screw must be bottomed with plates (min. dimensions P10×100-100)

Požadavky na rovinnost podlahy / Anforderungen an die Bodenebenheit / Requirements for floor flatness

± 10 mm / 1 m

2.8. Electrical connection

Attention!

Only a qualified professional must carry out the servicing and repairs of the electric equipment! Take special care during work with electrical equipment. High voltage shock can have fatal consequences! Always keep notes about work safety.

Electrical parameters of the machine:

- Service voltage: $\sim 3 \times 400 \text{ V}$, 50Hz, TN-S
- Total input / Max. fuse: 4,4 kW / 16 A

Before connecting switch off the main switch of the power supply circuit for the machine and ensure dry place when doing connecting works!

Service voltage must agree with the line voltage! Crosscut of the supply line must respond with rated current for max. machine load

Note:

The values of the crosscut of the conductor and the rated current are in the norms

Note:

The socket with the fork can be used only at the machines with the rated current less than 16 A and total input less than 3 kVA.

Supply is equipped with a nend part 16 A for connection to power source.

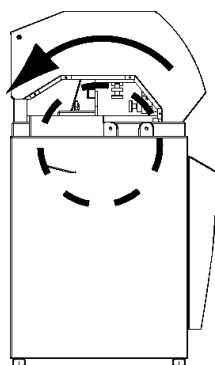
In case the machine is connected with a direct connection, an extra main switch must be added which can be locked in zero position.

Attention!

In this case the extra main switch becomes primary and the main switch on the machine has only secondary function.

2.8.1. Check the running direction of the cutting wheel

After the machine has been successfully connected, briefly switch on the machine and put the driving engine of the cutting wheel in the running position. The direction must be in accordance with the arrow direction on the picture. In case the direction of the cutting wheel does not match, two phases at the terminal strip must be switched.



2.9. Connecting to the compressed air supply

Connect the machine to the compressed air supply by means of the screw **G1/4** on the manifold period according to the picture.



Compressed air must satisfy conditions:

- Roughly cleaned and partly dry.
- $p_{min} = 0,4 \text{ MPa} = 4 \text{ bar}$
- $p_{max} = 0,6 \text{ MPa} = 6 \text{ bar}$

2.9.1. The exhaustion

The exhaustion for AL ANC machines has two outlets.

The first outlet is installed at the lower part of the machine and it provides for the chip removal from the blade area.



The outlet is installed at the upper part of the machine and it provides for the chip second removal from the cutting area.



For sufficient exhaust output, it is necessary to ensure:

- correct installation of the suction set on the machine
- correct suction installation with the suction hose
- correct connection (fan rotation direction) of the suction device
- observance of the specified suction output (we recommend you to connect the suction set to a suction device of the Bomar company)
- the suction efficiency is influenced by the amount of the micronizer cooling dose; with an increasing cooling dose, the chips are becoming heavier, with which the efficiency decreases

2.9.2. Filling of the cooling system

Note:

If the machine is equipped with Microniser, fill the Microniser container with prescribed cooling agent. Now is Microniser ready for operation.

2.10. Check machine function

Before starting the check machine functions, you must read the chapter „**Machine operation**“. Do not carry out check machine functions, if you do not comprehend meaning of all buttons and all machine functions.

Check, if the machine or some parts of the machine were not damaged during transport.

Check, if covers are installed and functional.

Switch on the main switch and check the motors and systems (saw disk drive etc.).

Open and close the vice. Turn the saw frame from one outer position to other outer position. Raise the frame to the top position and drop the frame to the lowest position.

Carry one cycle of cutting without material. Check, if the machine runs with no irregularities. If all machine functions are right, the machine is ready for operation.

2.11. Machine disposal after lifetime

Blown out all service fluids (cooling liquid, hydraulic oil) into designated reservoir. Dismantle machine into separate parts and dispose them in accordance with valid directives.

2.12. Saw blade

Refit the saw disk cover only after you have installed and tightened the saw disk.

2.12.1. Saw blade size

Ø500 × Ø32 × 4,1 mm

The maximum cutting range of the machine is reached by using diving disk with recommended diameter. The usable qualities of the machine are lowered by using diving disk with fewer diameter.

Usage of the dividing disk with fewer diameter than 350 mm is not recommended!



2.12.2. Selection of the saw disk

The circular disk is possible to equip with dividing disks according to the material character and requirements on the quality of cut.

Look at the recommendation of your supplier when selecting the suitable dividing disk.

Note: *The machine is supplied without the saw disk.*

3. Ovládání stroje / Bedienung der Maschine / Machine control

3.1. Starting the circular saw

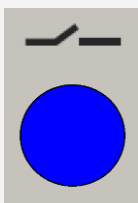
»

1. Switch on the main switch of the circular saw. The main switch is located on the side of the control panel.



After switch-on, the system is initialized and initialization screens appear.

2. When prompt appears activate the machine safety circuit with the button on the machine control panel.

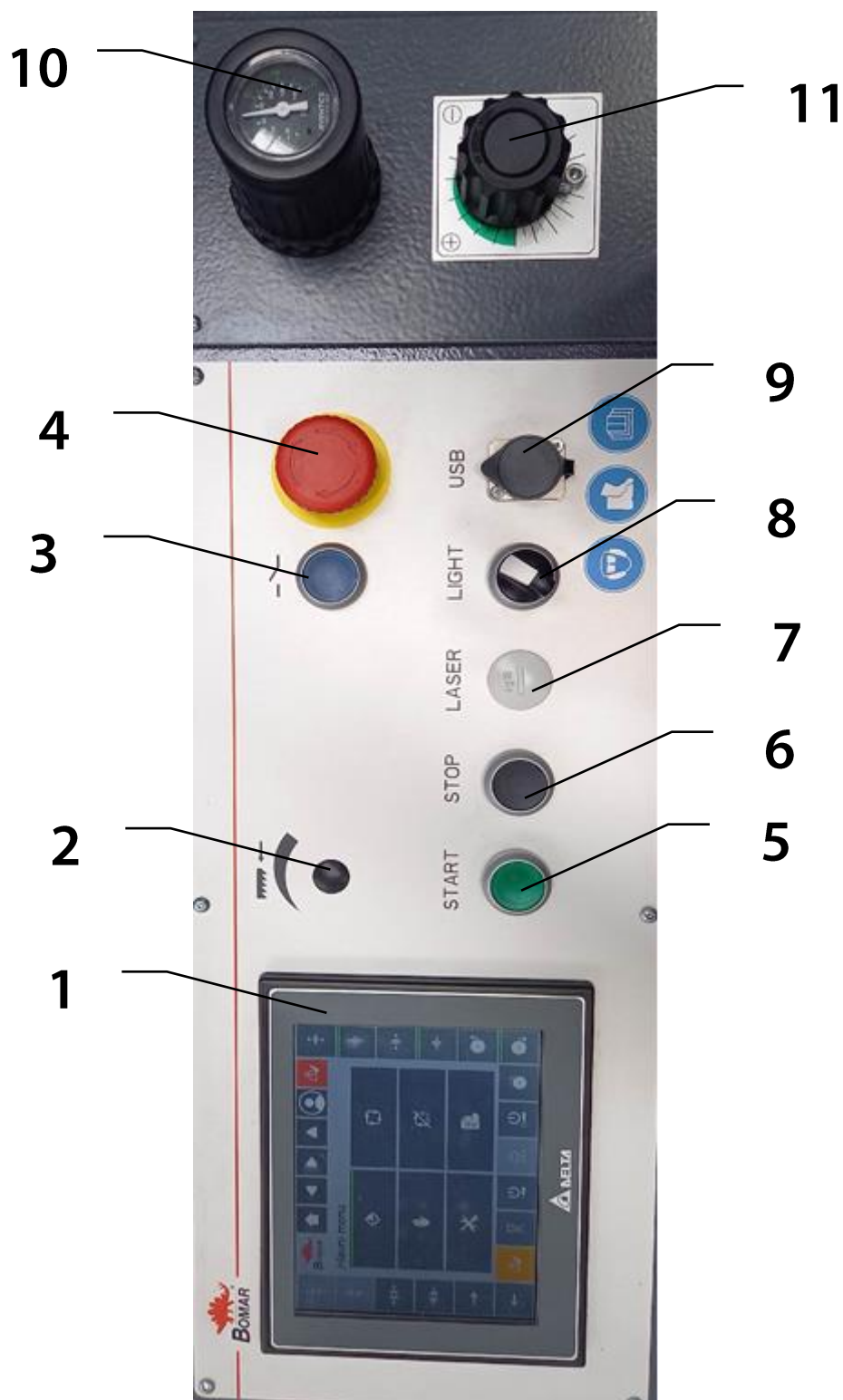


Unless the safety circuit is activated, the machine cannot be started.

If the safety circuit cannot be activated with the button on the machine control panel, check all safety elements.

3. After the safety circuit is activated, the first screen of the selected mode appears according to the mode selected (see the mode selector position).
4. Reference the machine – see the chapter on the machine referencing

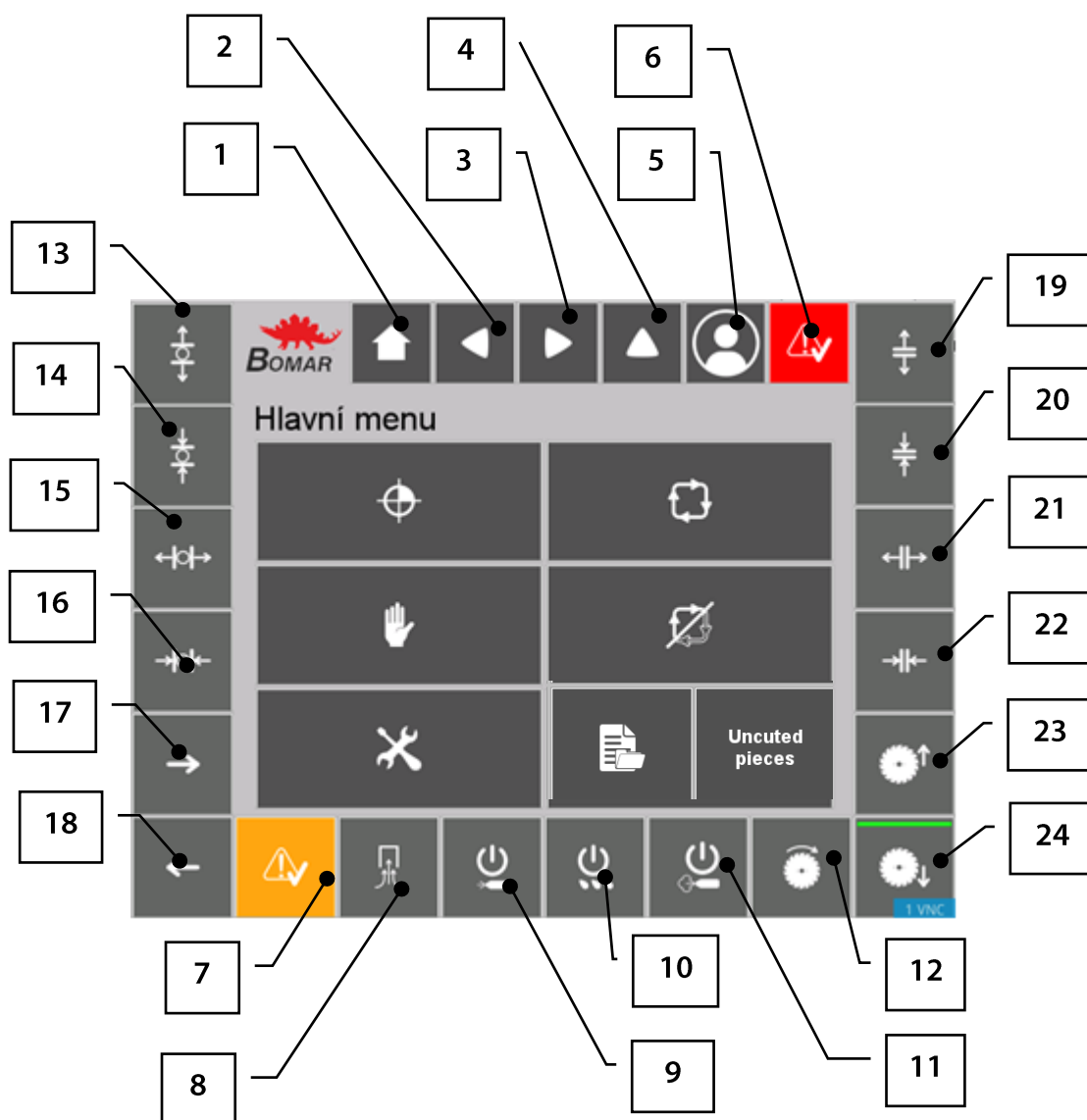
3.2. Control panel



1	Display It shows the operating mode and it allows dialogue with the service workers.
2	Frequency converter, selection of the saw bladespeed (optional accessory) Using the frequency converter you can adjust the saw band speed in a continuous range.
3	Safety circuit Press button to start the safety circuit
4	Emergency Stop Switch Immediately stops the machine in a case of emergency.
5	START button Switch on the automatic cycle.
6	STOP button Switch off the automatic cycle. START button
7	LASER Without function
8	LIGHT Halogen lighting of the work area. Illuminates the working area of the machine with natural light. Proper lighting of the work area significantly increases the ergonomics of the machine.
9	USB port (optional accessories) Can be used when retrieving or saving data.
10	Adjustment of the vices clamping pressure Adjust the clamping pressure of the main and feeding vice with control wheel (run out it and turn it). The pressure value selects according to the cutting material.
11	Speed of the arm lifting to the cut Adjust the speed of the arm lifting to the cut by control valve.

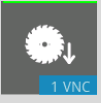
3.3. Screens of the control software – general description

3.3.1. Control buttons on the control panel



The meaning of the icons on the touchscreen screens

1		Home Return to the main screen. The main screen can also be initialized by selecting from any control software screen.
2		Browsing between screens at the same hierarchical level (e.g., if parameter control or setting is divided into several screens or if there are more elements controlled or more units to set service parameters)
3		
4		Return to the nearest higher screen in the hierarchy
5		User login SERVICE1 password 1234 SERVICE2 password 3467 SERVICE3 password 2468 SERVICE4 password 135248
6		Icon indicating errors If this icon is lit on the display, an error has occurred on the machine. By touching the icon, you can hide the error message and activate control screens..
7		ACK Button Quoting – malfunction confirmation. If the malfunction is not confirmed, the operating cycle cannot be started
8		Suction (optional equipment) Button on / off suction.
9		Micronisation Press to start/stop cooling the band with micronisation
10		Liquid cooling (optional equipment) Button to turn on / off the cooling of the saw band using cooling emulsion.
11		Blowing (optional equipment) Button to turn on / off the machine's blowing
12		Spin the blade Start/stop the blade
13		Without function

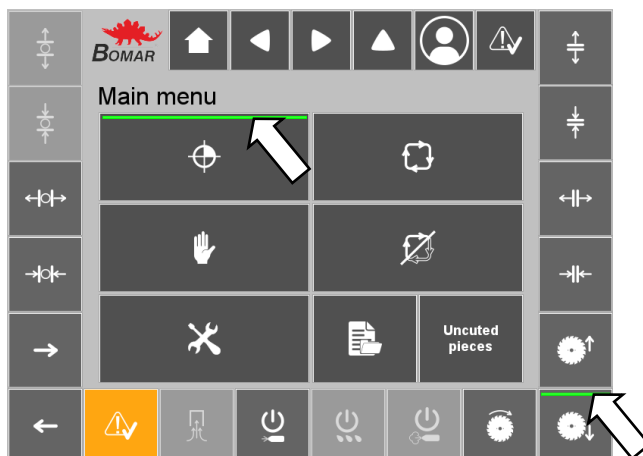
14		Without function
15		Loosening of the feeder vice
16		Tightening of the feeder vice
17		Feeder movement - to the blade For the time the button is pressed, the feeder moves in the chosen direction If the machine is not referred, the feeder moves in micro steps (slowly)
18		Feeder movement - away from the blade For the time the button is pressed, the feeder moves in the chosen direction If the machine is not referred, the feeder moves in micro steps (slowly)
19		Release of the upper clamping at the main vice
20		Clamp of the upper clamping at the main vice
21		Release of the main vice
22		Clamp of the main vice
23		Blade movement - upwards By pressing the button the arm starts moving in the corresponding direction To move the arm it is necessary to keep the button pressed
24		Blade movement - downwards By pressing the button the arm starts moving in the corresponding direction To move the arm it is necessary to keep the button pressed

3.3.2. Touch screen

Pay increased attention when operating the touch panel. Make your selection by slightly touching the display with a bare finger or stylus designed for touch screen control. By no means use sharp objects or other tools!

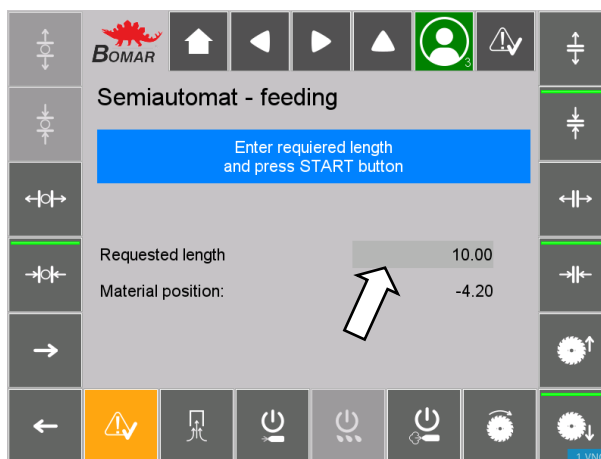
The individual options on the touch screen can be chosen by **direct touch on the pertinent icon**.

If the window is highlighted in green, the corresponding function is in progress (e.g. closing the vice) or the corresponding function is finished (e.g. reporting)



3.3.3. Touch screen keyboards

Touching of the parameter filling window activates a keyboard which appears on the display.

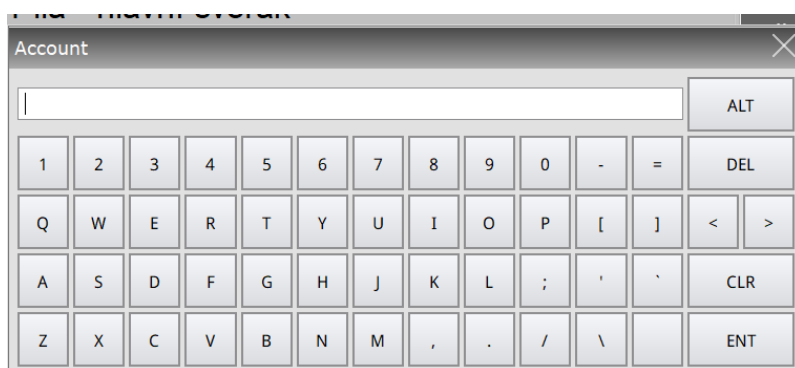


Keyboard types:

- a) If only numeric values can be entered in the window, (such as in the window for recipe setting), only the **numeric keypad** appears:

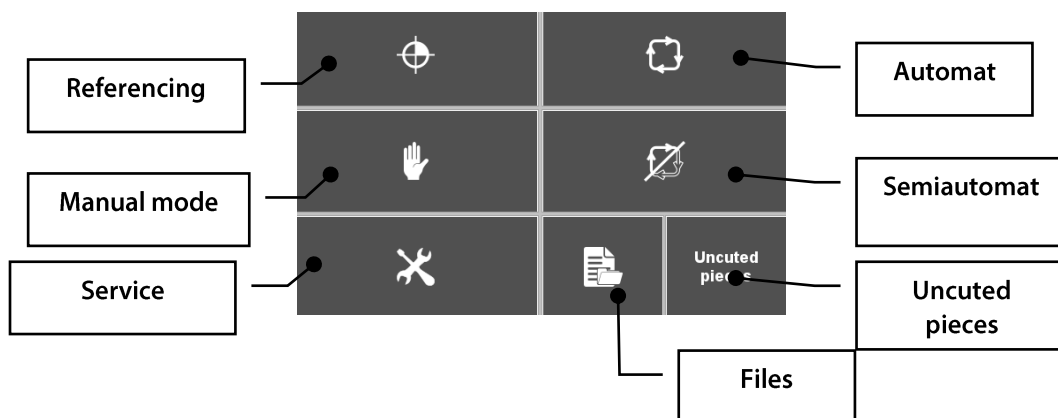


- b) If both figures and text can be entered in the window, the **combined keyboard** appears:



3.3.4. Main screen of the control software, machine modes

The main screen of the control software shows: mode for referencing the machine, selection of working modes (manual mode, semi-automatic mode, automatic mode), setting mode (service) and files (access to the menu used for file management).



Referencing mode:

- **Referencing** – used to reference the machine – that is, after setting the machine in the operating state.

Working modes:

- **Manual mode** – used to control the individual machine functions manually.
- **Semiautomatic mode** – used to execute one cut according to the given conditions (accessible from the manual mode).

The semiautomatic mode is recommended for cutting smaller number of pieces.

- **Automatic mode** – used to execute the entire cutting cycle automatically according to the recipe entered or for cutting a single long piece.

Other offers:

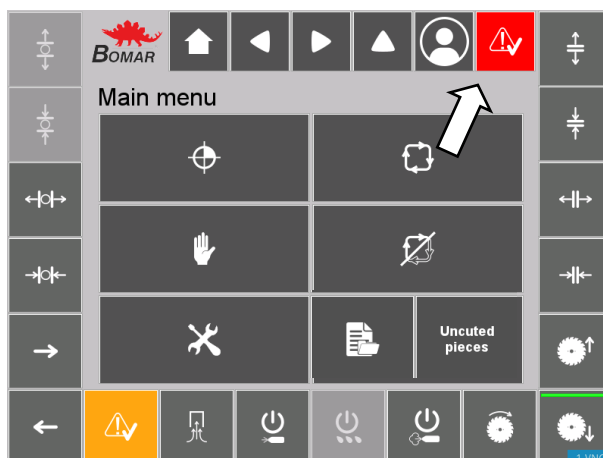
- **Service** – entry in the menu used for setting and modifications of the machine service parameters. The service parameters of the machine are used to set the limits for control of the cutting process.
- **Files** – entry in the menu used for administration of recipe files. (Recipes are software plans controlling the cutting procedure for final pieces of various lengths in the automatic cycle).
- **Uncuted pieces** - is used to display unfinished pieces from the recipe.

3.3.5. Warning (Error) messages

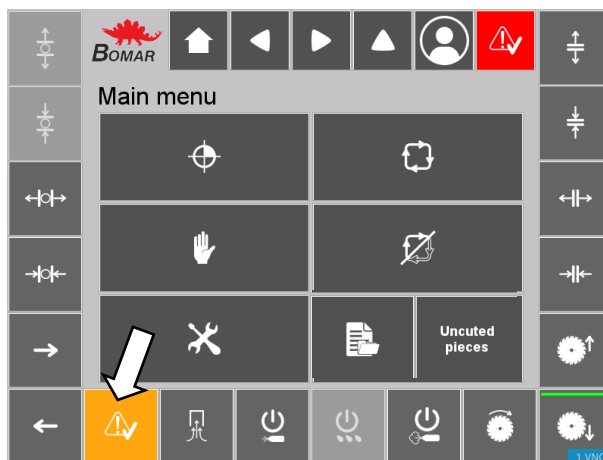
A red icon will light up in the header of the screen to signal an error - that alerts the operator to situations that prevent the continuation of an initiated operation or that prevent the continuation of a cycle.

If a warning (error) message appears on the screen, eliminate the cause of the error condition and then always acknowledge (confirm) the error message.

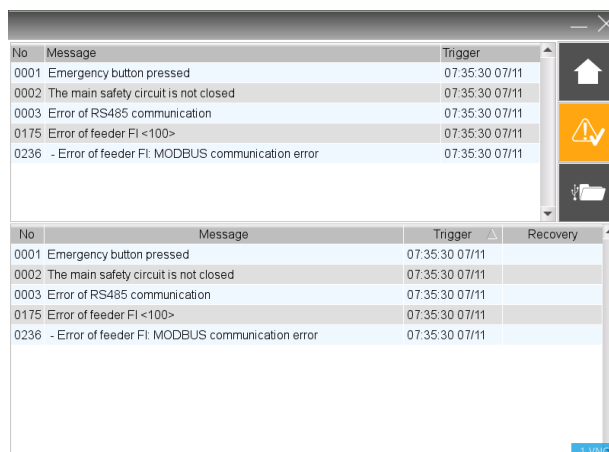
Once the cause of the error has been successfully resolved, the error message disappears from the screen after the confirmation.



The **ACKNOWLEDGE (ACK)** icon is used to confirm the signalized error.



After pressing the **ACK** icon, a history of error messages will appear.



No	Message	Trigger
0001	Emergency button pressed	07:35:30 07/11
0002	The main safety circuit is not closed	07:35:30 07/11
0003	Error of RS485 communication	07:35:30 07/11
0175	Error of feeder FI <100>	07:35:30 07/11
0236	- Error of feeder FI: MODBUS communication error	07:35:30 07/11

No	Message	Trigger	Recovery
0001	Emergency button pressed	07:35:30 07/11	
0002	The main safety circuit is not closed	07:35:30 07/11	
0003	Error of RS485 communication	07:35:30 07/11	
0175	Error of feeder FI <100>	07:35:30 07/11	
0236	- Error of feeder FI: MODBUS communication error	07:35:30 07/11	

3.4. Complete working cycle of the machine

The complete working cycle of the machine consists of the following steps:

1. Switching on the machine and safety circuits (see chapter "Starting the circular saw")
2. Referencing the machine (see chapter "Machine referencing")
3. Setting service parameters (see chapter "Setting service parameters")
4. Adjusting the band saw (see chapter "Adjusting the saw")
5. Executing
 - the cut in the semiautomatic mode (see chapter "Semiautomatic mode")
 - or
 - the cutting cycle in the automatic mode (see chapter "Automatic mode" and the "Recipes" chapter)

For manual control of the individual machine elements – see chapters "Manual mode" and "Control buttons on the control panel"

6. Executing another cut or cutting cycle, or end of cutting and switching the machine off

Caution!

Due to technological reasons, the minimum piece length is not limited by any automatic safety measure! The operator must consider all parameters entered with respect to the risk of the piece falling into the base or getting jammed in the aperture for the cutting blade.

Risk of the piece getting damaged or sprung, of collision, machine getting damaged, and of injuries!

Attention

During loading, the material must not be fed to the main vice with the feeder! The material face may collide with the main vice.

The collision risk results from the following factors:

- material dimensions and dimensional deviations
- material shape deviations
- closed main vice (if the machine is in manual mode)

Caution!

***It is forbidden to cut material unless the exhausting unit is started!
Chips accumulated in the blade space can damage the machine!***

3.5. Machine referencing

Before the saw is used, the machine must be referenced.

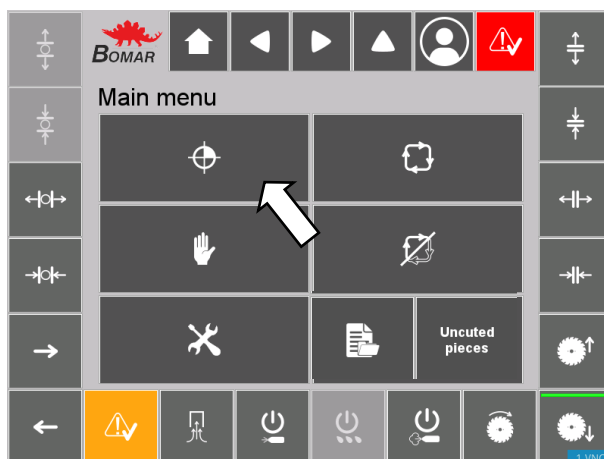
Referencing means setting initial positions of some mobile units of the machine before its further use.

If the machine is not referred, the feeder may not be positioned.

Caution !

***Before starting the referencing, remove all material from the saw and feeder. Do not reference the machine, if there is any material clamped in any of the vices..
If a material is laid on the feeder track, open the feeder vice sufficiently in the manual mode before starting the referencing, so that the material is not caught by it..***

1. In the main screen of the control menu, choose the **Referencing option**.



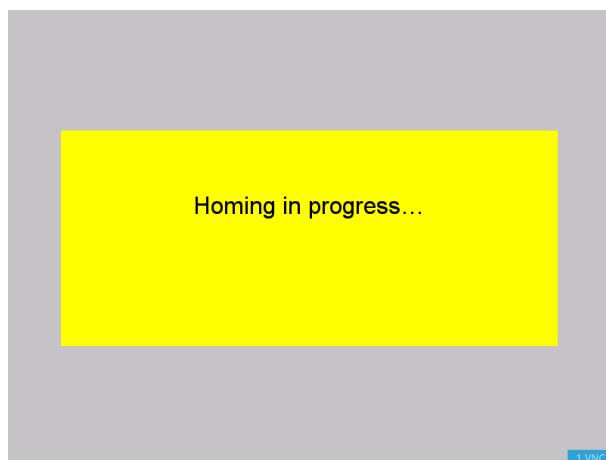
2. This screen appears with a question whether the operator wants to start the referencing process

By pushing the **"YES"** option, start the referencing process.

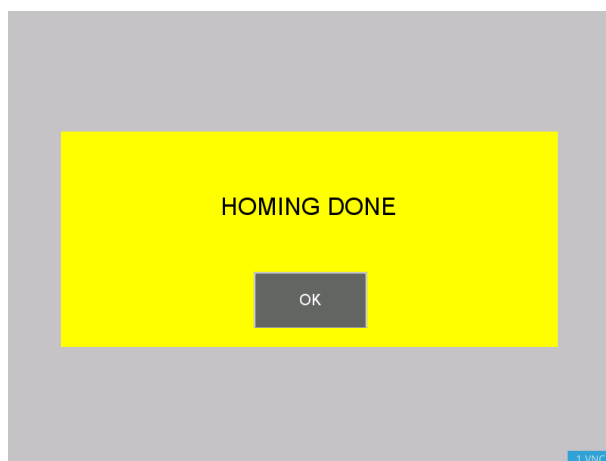


Referencing will be executed as a sequence of movements of the individual saw units which will be set from the current positions to their reference ones.

3. A screen with information about **the homing is in progress** will appear:



4. Successful end of referencing is indicated by a notice on the control panel display:



If referencing of any unit fails, first check the state of the reference position limit switch and the switching counterpart.

3.6. Manual mode

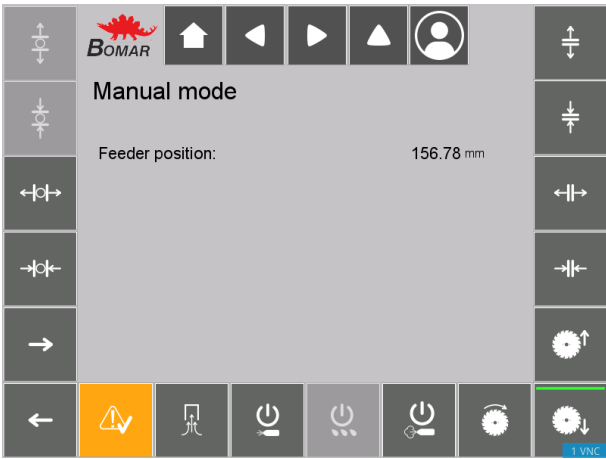
The manual mode is intended for manual control of the individual machine elements.
It isn't possible to make a cut using touch control.

Caution!
Pay increased attention when moving the material towards the main vice, there is the risk of collisions particularly during manual operation!

1. To put the machine in manual mode, select the option to initialize manual mode on the main screen:



2. The following screen is used for **manual control of the saw**:



Position	Function
Feeder position	Current position of the feeder

For manual control of the individual machine elements – see chapter “Control buttons on the control panel”

3.7. Semiautomatic mode

Semi-automatic mode – is intended for performing one cut according to the specified conditions.

The semi-automatic mode is **recommended for cutting shorter lengths of material and a smaller number of pieces.**

3.7.1. Cutting execution in semiautomatic mode:

1. Refer the machine
2. **Open the main vice and the vice of the feeder sufficiently** – with respect to the width of the material which is loaded.
3. **Set the clamping cylinders as close to the material as possible** (recommended distance from material surface is 5 mm). The further away from material the cylinders are, the longer the clamping will take.
4. **Set the blade final position above the material for completing the cutting**

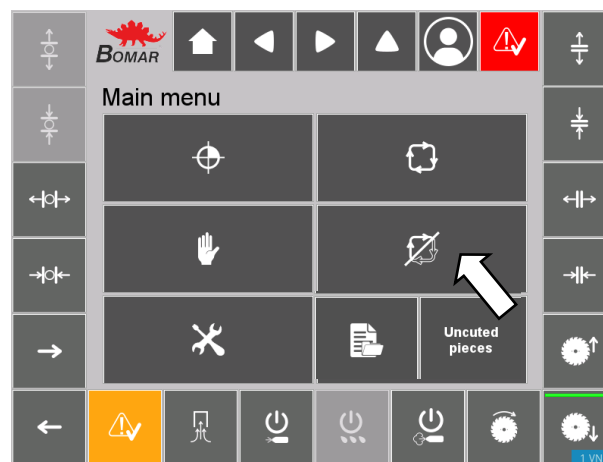
Before starting an semiautomatic cut it is necessary to set the lifting height of the saw arm. The height is set in such a way, that the saw blade cuts through the material completely. The saw blade should not move too high above the material to avoid unnecessary delays during the cycle.

Lift the saw arm using button 4 ("Lift saw arm"). As soon as it is positioned at desired height release the button. The saw blade will sink into initial position automatically.

Caution!

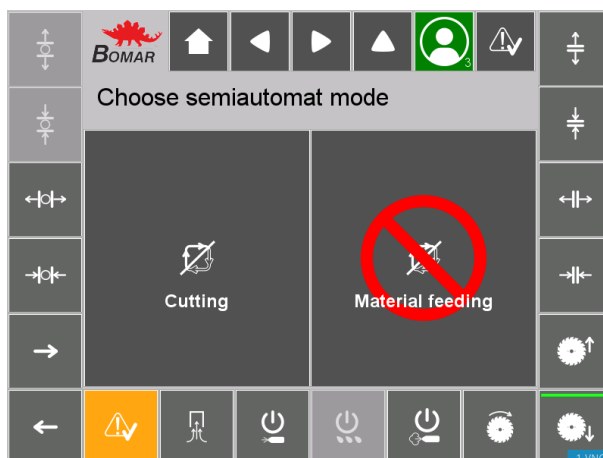
After the cutting is completed, the saw remembers the blade setting. If a higher material is to be cut next and the arm height is not changed, cutting of the material may be incomplete!

5. By means of the potentiometer on the saw control panel, **set the speed of the blade movement to cut**
6. To switch the machine to the semiautomatic mode, **choose the "Semiautomat" option in the main screen**



7. **The screen appears for control of the machine in the semiautomatic mode**, in one of the following variants, a) or b):

a) Invalid material



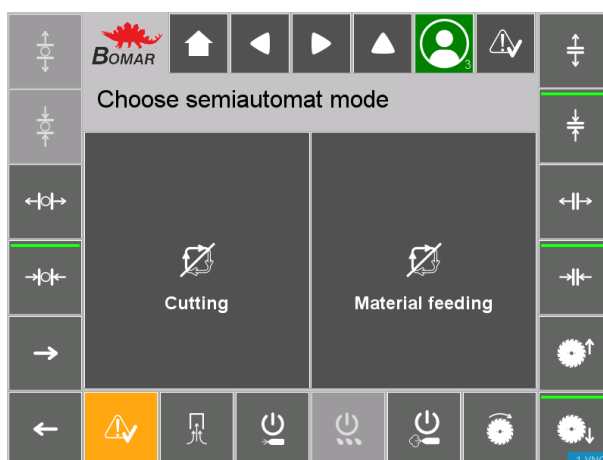
If the material is invalid - i.e. the machine has no information about the position of the front of the material, it is possible to select only the "Cutting" option.

The "Material feeding" option cannot be selected.

Without a valid material, the semiautomatic mode enables:

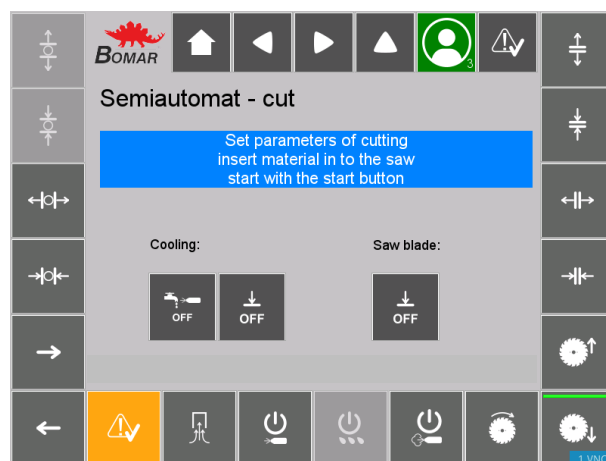
- entry of parameters
- cutting of material without a length entered

b) valid material



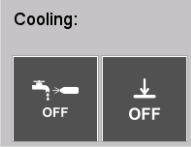
If the material is valid (after cutting), it is possible to select the semi-automatic "Material feeding" mode.

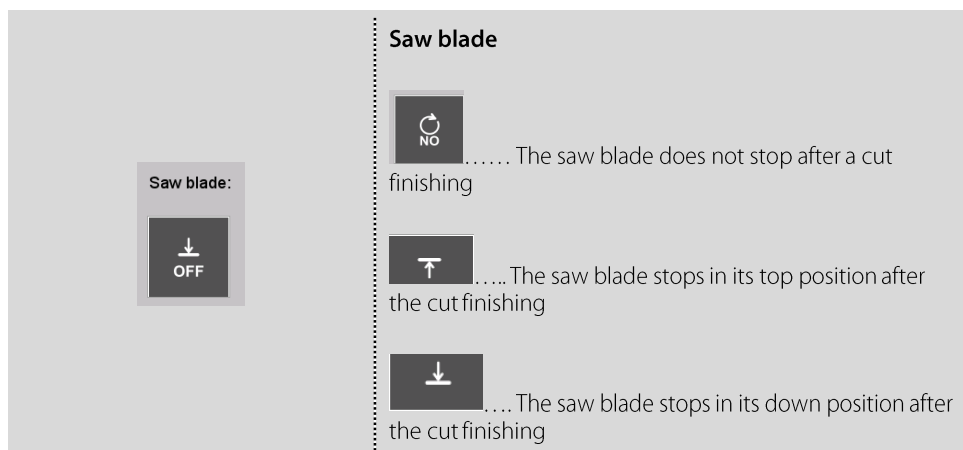
8. After pressing the **"Cutting"** option, the screen for setting the cutting conditions will appear.



It is possible to control the individual functions of the machine on the screen of the semi-automatic machine (see the chapter "Control buttons on the control panel").

Set the cut conditions:

Position	Function
	Cooling
	 ... cooling is stopped
	 ... cooling will run continuously
	 ... the cooling is turned off when the blade is in the upper position
	 ... cooling is turned off when the blade is in the down position



9. Insert material or load the requested length

The material can be loaded

- with a manually controlled feeder – to the estimated length.
After loading, the material must be clamped in the main vice by means of the manual control
- with an automatically controlled feeder to the given length – see “Loading the required material length in the semiautomatic mode”

10. Start the exhaustion

Caution!

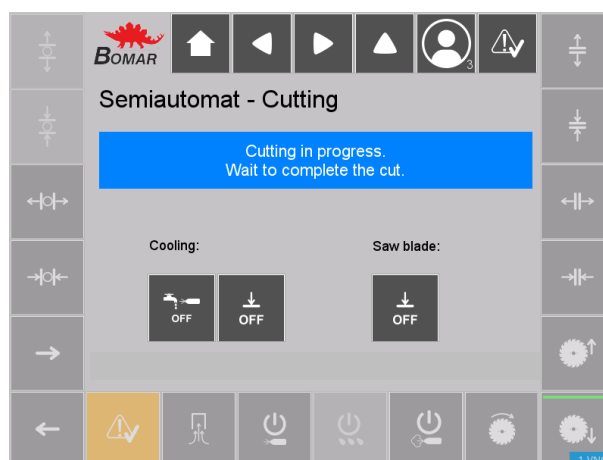
It is forbidden to cut material unless the exhausting unit is started!

Chips accumulated in the blade space can damage the machine!

11. By pushing the **START** button on the control panel, **start cutting**.

12. After pushing **START** – semiautomatic cut process:

- The saw blade starts up and the arm starts feeding to cut.
- While the arm is moving to cut or even during cutting, you can adjust the speed of arm moving to cut and by means of the control elements on the machine control panel
- On the control panel display, a screen appears with information on the cutting process.



13. After cutting in the semiautomatic mode is completed the saw blade will automatically move into the base.

14. **Remove the cut-off.** Now you can repeat the entire procedure.

3.7.2. Loading the required material length in the semiautomatic mode

Attention!

To load the given length, the material must be valid – that is, the machine should have information on the material beginning position!

Information on the material beginning position is kept even if the semiautomatic cycle follows on the automatic cycle and the material has remained clamped in at least one of the vices.

For semi-automatic loading, the following applies:

- after starting the loading by pressing the START button, the feeder grabs material immediately at the point, where the jaw of its vice is currently located
- the feeder does not automatically re-grip the material

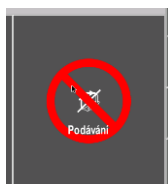
Therefore, it is necessary::

- either before starting the loading, to set the feeder to suitable distance from the main vice (maximum length of feeder travel is 500mm)
- or to load one or two pieces manually and then load automatically the last section of required length (see following text for respective procedure).

NOTE:

In the semiautomatic cycle the feeder performs multiple feedings automatically. Thus, cutting a material of a big length may be better with the use of the automatic cycle with a procedure programmed for a single piece.

1. If before starting to weigh the material to the desired length in the semi-automatic mode, the "feed" option is not available - i.e. that is not a valid material, cut the material!



To make trim cut before loading of the length in the semiautomatic mode, proceed as follows:

- a) load the material under the saw band manually
- b) start the cut in the semiautomatic mode

Attention!

To keep the information on the material position, the material must remain clamped in the feeder vice after the cut-in!

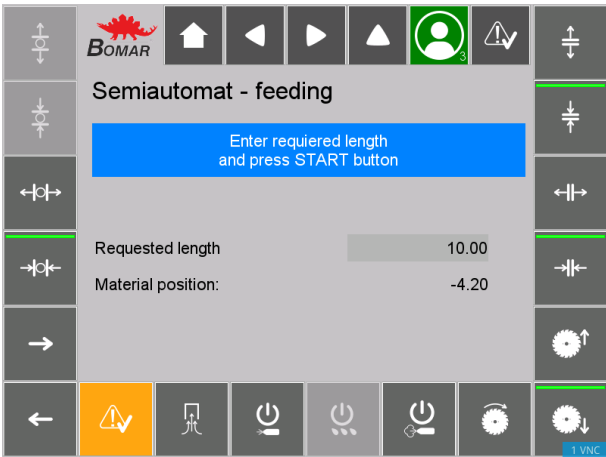
Attention!

After the cut-in, open the main vice manually so that the feeder can handle the material in order to load the length!

2. If the material is valid, choose the option for length loading



3. The screen appears for entry of the required material length to be loaded



Position	Function
Requested length10.00	Field for entry of the required length to be loaded. After the touch, the keyboard appears..
Material position:-4.20	Information about position of thematerial

3. Enter the required length in the window for setting parameters on the screen for entry of the desired length to be loaded.
4. **The feeder clamps the material at the point where is currently placed and it does not perform repeated gripping of the material in this semiautomatic mode**

If it is not possible to load the requested length using just one feeding:

- either set the feeder to a suitable position where it will be possible to load the requested length using one stroke of the feeder (max. 500mm)
- or load the protruding part of the material length manually – using the auxiliary feeding

Caution!

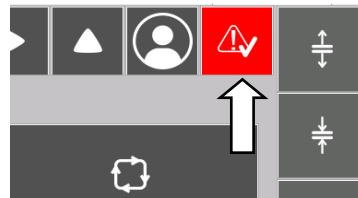
The machine mustn't lost information about the materiel during the auxiliary feeding – it means that the material has remained clamped in at least one of the vices during.

Auxiliary feeding procedure:

- Clamp the material in the main vice.
 - Open the feeder's vice sufficiently.
 - Move the open feeder to the beginning of its travel.
 - Clamp the material with the feeder's vice
 - Open the main vice jaw sufficiently
 - Move the feeder with the clamped material manually to towards the main vice
 - Check the fed length on the display (see Fig. 1)
- If the difference between the length fed and the entered feeding length remains bigger than the feeder travel length (500mm), perform further auxiliary feeding
- If the feeding length is smaller than the feeder travel length (500mm), press the **START** button to commence automatic feeding of the material.

NOTE:

If the entered feeding length is bigger than the feeder travel length and the operator presses the START button to commence automatic feeding of the material, the machine will report an error message.



The operator have to check whether the entered length is correct, the operator will confirm the error and – as needed - either changes the position of the feeder or performs auxiliary feeding.

- After the Start button is pushed to start loading of the material :
 - The feeder will clamp The material in its current position and feed it to The required length. The main vice will open automatically before feeding

Note:

The feeder will feed the correct length even if a travel from the blade is necessary.

 - After being fed the material is automatically clamped with the main vice. The feeder will remain clamped.

3.7.3. Semiautomatic sequence interruption

3.7.3.1. With the STOP button

- 1 push - interruption of the executed sequence of the „pause“ type**
- This interruption is only possible if the cut has not been started.
- After the Start button is pushed, the interrupted sequence (material loading to the given length, arm rotation to the given angle) is resumed from the interruption place.
- 2 pushes – complete stop and finish of the sequence or cut executed**
- If cutting was started in the semiautomatic mode, the machine does not respond to 1 push; only after the 2nd push of the STOP button, the cut is stopped.
- Double-push of the STOP button can also be used to finish another sequence started in the semiautomatic mode.
- The interrupted sequence cannot be resumed; it must be restarted from the beginning.

3.7.3.2. With the Emergency Stop Switch button

- In emergency cases, push the **Emergency Stop Switch** on the control panel.
- **1 push - interruption of safety circuits**
 - - **complete stop and finish of the sequence executed**
- The interrupted sequence cannot be resumed; the safety circuits must be switched on again and the interrupted sequence restarted from the beginning.

3.7.3.3. Interruption of safety circuits

- The interrupted sequence cannot be resumed; you must restart the safety circuits and start the interrupted sequence again from the beginning.

3.8. Automatic mode

In the automatic mode on this machine:

- **cutting** is executed in **automatic cycles**;
- **cutting of required lengths of final pieces is controlled by predefined plans – called "recipes"**.
Recipes are software plans controlling the cutting procedure for final pieces of various lengths in the automatic cycle;
- **necessary intervention of operators within one automatic cycle are only limited to material handling** – that is, loading semi-products and handling cut-up and residual pieces.

One automatic cycle is controlled by one recipe and used for cutting of final pieces from one or more bar semi-products or one or more bundles of bar semi-products.

All semi-products loaded to be cut within one automatic cycle:

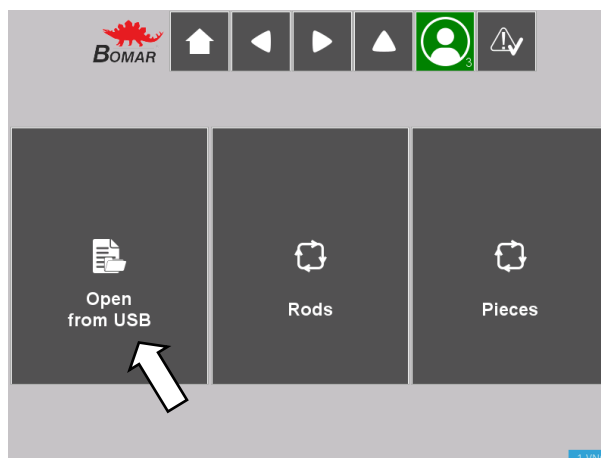
- must have identical section parameters;
- can have identical or different length parameters.

3.8.1. Storing and opening recipes

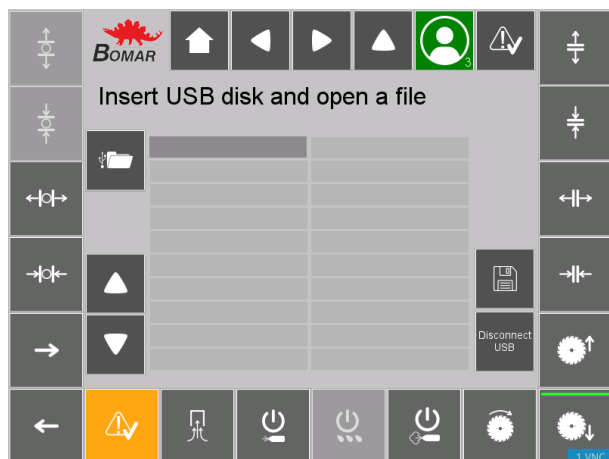
The automatic cycle implemented on this machine can be controlled:

- **through a recipe created directly on this machine** - i.e. with the help of the software included in this machine
- **through a recipe stored on a USB drive**

Automatic cycle type selection screen and with the option "Open from USB"



After pressing the option, a menu appears to save the recipe to USB or to open the desired recipe from USB



Position	Funktion
	Selecting and opening a saved file (recipe)
	Leafing through the recipes
	Recipe storage
	Disconnecting USB

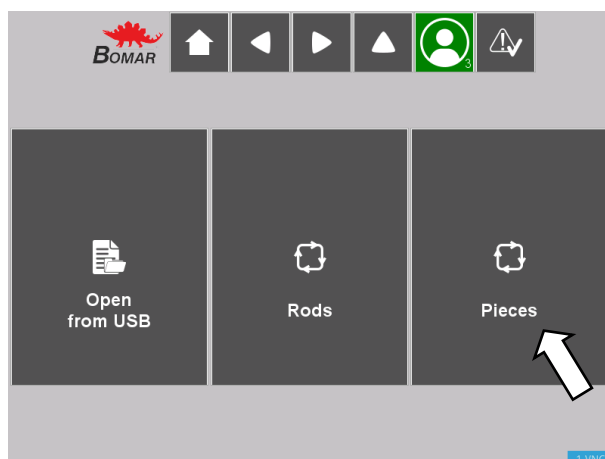
3.8.2. Types of recipes for automatic cycle control

This machine enables execution of the automatic cycle of two types:

- for automatic cycle type "PIECES"
- for automatic cycle type "RODS"

1. "PIECES" type automatic cycle ("PIECES" automat)

In the "Pieces" type automatic cycle, final pieces are cut in continuous sequence by the recipe, **as long as further required length can be loaded.**



Recipe for automatic cycle type "PIECES"

In the automatic "IN PIECES" cycle, the final pieces are cut according to the recipe in a continuous sequence **until the next desired length can be fed.**

Length						Length					
Count	Done	Box	Enable			Count	Done	Box	Enable		
1	0.00	0	0	0	NO	11	0.00	0	0	0	NO
2	0.00	0	0	0	NO	12	0.00	0	0	0	NO
3	0.00	0	0	0	NO	13	0.00	0	0	0	NO
4	0.00	0	0	0	NO	14	0.00	0	0	0	NO
5	0.00	0	0	0	NO	15	0.00	0	0	0	NO
6	0.00	0	0	0	NO	16	0.00	0	0	0	NO
7	0.00	0	0	0	NO	17	0.00	0	0	0	NO
8	0.00	0	0	0	NO	18	0.00	0	0	0	NO
9	0.00	0	0	0	NO	19	0.00	0	0	0	NO
10	0.00	0	0	0	NO	20	0.00	0	0	0	NO

Position	Funktion
Length	Cut-off length
Count	Number of pieces
Done	Number of finished/cut pieces
Box	Material sorting (in case an ejector is connected)
Enable	No/allow cutting

If the material is **so short** that it is no longer possible to feed another required length, the insertion of another blank is required.



2. "RODS" type automatic cycle ("RODS" automat)

In the **"RODS" type automatic cycle**, final pieces are cut in batches precisely defined by the **recipe**, being specified in the recipe for every individual semi-product piece. By the customer's requirements, batches of final pieces can be specified either individually for one semi-product piece or by means of a uniform specification common to the entire batch of semi-products.

Cutting in the RODS type automatic cycle enables a residual piece of a predefined minimum length to be preserved from every standard length bar so that this residual piece can be utilized for further processing.

If in the **"RODS" type automatic cycle** a semi-product is loaded, being of insufficient length for cutting of all specified pieces, you are asked to load another semi-product according to laser detection – similarly to the **"PIECES" automatic cycle**.

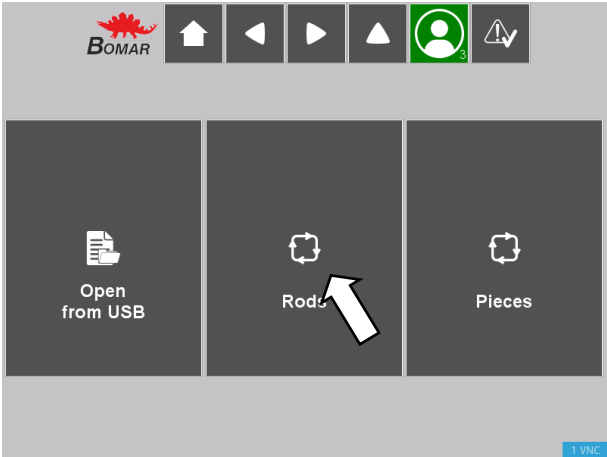
However, unfinished pieces from a short blank will not be cut from the next blank, they will only be recorded in the table of unfinished pieces.



Automat - recipe - Pieces

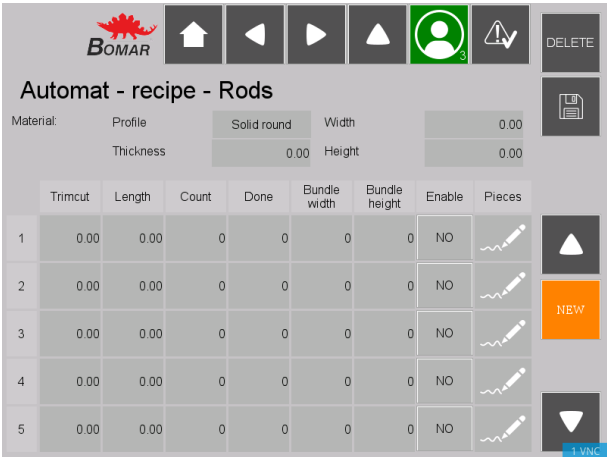
	Length	Count	Done	Box	Enable		Length	Count	Done	Box	Enable
1	100.00	1	0	0	YES	11	0.00	0	0	0	NO
2	0.00	0	0	0	NO	12	0.00	0	0	0	NO
3	0.00	0	0	0	NO	13	0.00	0	0	0	NO
4	0.00	0	0	0	NO	14	0.00	0	0	0	NO
5	0.00	0	0	0	NO	15	0.00	0	0	0	NO
6	0.00	0	0	0	NO	16	0.00	0	0	0	NO
7	0.00	0	0	0	NO	17	0.00	0	0	0	NO
8	0.00	0	0	0	NO	18	0.00	0	0	0	NO
9	0.00	0	0	0	NO	19	0.00	0	0	0	NO
10	0.00	0	0	0	NO	20	0.00	0	0	0	NO

The next blank to be inserted within the same automatic cycle will be cut exactly according to its prescribed batch of final pieces, regardless of whether or not all pieces have been cut from the previous blank according to its prescription.



Recipe for automatic cycle of the "RODS" type

In the automatic cycle of the "RODS" type, the final pieces are cut according to the recipe in precisely defined doses, which are specified in the recipe specifically for each individual piece of semi-finished product. The specification of the batches of final pieces can be carried out either separately for one piece of semi-finished product or by means of a uniform specification which is common for the entire batch of semi-finished products, according to the requirements of the recipe sponsor.



Position	Funktion
Trimcut	Lenght of trimcut
Length	Cut-off length
Count	Number of pieces
Done	Number of finished/cut pieces
Box	Material sorting (in case an ejector is connected)
Enable	No/allow cutting

After pressing the "PIECES" option, the screen for setting the specifications of the pieces will appear:

Automat - recipe - Pieces

Length	Count	Done	Box	Enable	
1	100.00	1	0	0	YES
2	0.00	0	0	0	NO
3	0.00	0	0	0	NO
4	0.00	0	0	0	NO
5	0.00	0	0	0	NO
6	0.00	0	0	0	NO
7	0.00	0	0	0	NO
8	0.00	0	0	0	NO
9	0.00	0	0	0	NO
10	0.00	0	0	0	NO

Length	Count	Done	Box	Enable	
11	0.00	0	0	0	NO
12	0.00	0	0	0	NO
13	0.00	0	0	0	NO
14	0.00	0	0	0	NO
15	0.00	0	0	0	NO
16	0.00	0	0	0	NO
17	0.00	0	0	0	NO
18	0.00	0	0	0	NO
19	0.00	0	0	0	NO
20	0.00	0	0	0	NO

Position	Funktion
Length	Cut-off length
Count	Number of pieces
Done	Number of finished/cut pieces
Box	Material sorting (in case an ejector is connected)
Enable	No/allow cutting

Another blank needs to be inserted:

- either after a batch of final pieces is cut, which is prescribed, for a given piece of blank - if a blank of a specified length is inserted, which must be sufficient to cut all the prescribed pieces)
- or after the next required length is no longer possible - if a blank is inserted that is not long enough to cut all the prescribed pieces

The insertion of the blank is requested via an on-screen message:

**Remove all the remaining material
from the saw.**

Select the method of inserting material.

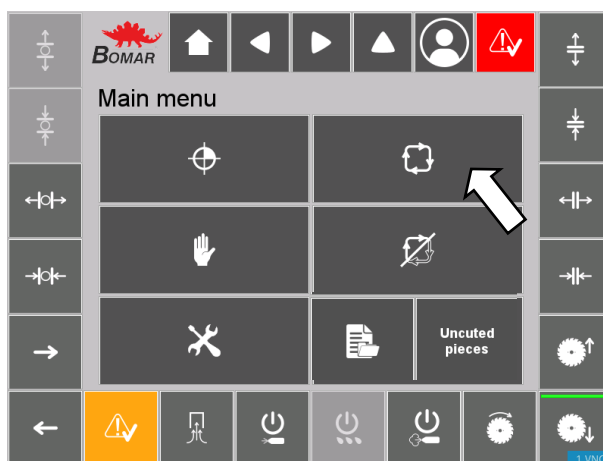
Width:	12345.67	Bundle - horiz.	12345
Height:	12345.67	Bundle - vert.:	123
Thickness:	12345.67	Length:	12345.67

3.8.3. Performing the cutting cycle in automatic mode

Attention!

The size of the burrs and unevenness of the material face affect the accuracy of the feed length!

1. To put the machine into automatic mode, select the option to initiate automatic mode from the main menu screen.



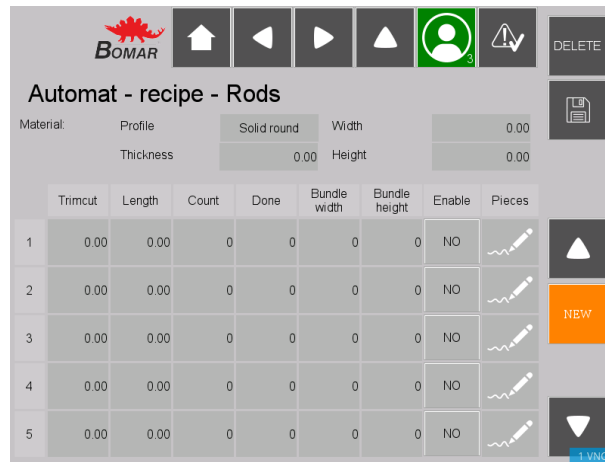
On the automatic mode screen it is possible to control individual machine functions (see chapter 3.3.2 Control buttons on the control panel) - if the automatic cycle is not started.

2. After pressing the option to enter the automatic mode, the screen of the last loaded recipe will appear.

Recipe screen for automatic cycle type "PIECES":

Length						Length					
Count	Done	Box	Enable	Count	Done	Box	Enable	Count	Done	Box	Enable
1	0.00	0	0	0	NO	11	0.00	0	0	0	NO
2	0.00	0	0	0	NO	12	0.00	0	0	0	NO
3	0.00	0	0	0	NO	13	0.00	0	0	0	NO
4	0.00	0	0	0	NO	14	0.00	0	0	0	NO
5	0.00	0	0	0	NO	15	0.00	0	0	0	NO
6	0.00	0	0	0	NO	16	0.00	0	0	0	NO
7	0.00	0	0	0	NO	17	0.00	0	0	0	NO
8	0.00	0	0	0	NO	18	0.00	0	0	0	NO
9	0.00	0	0	0	NO	19	0.00	0	0	0	NO
10	0.00	0	0	0	NO	20	0.00	0	0	0	NO

Recipe screen for automatic cycle type "RODS":



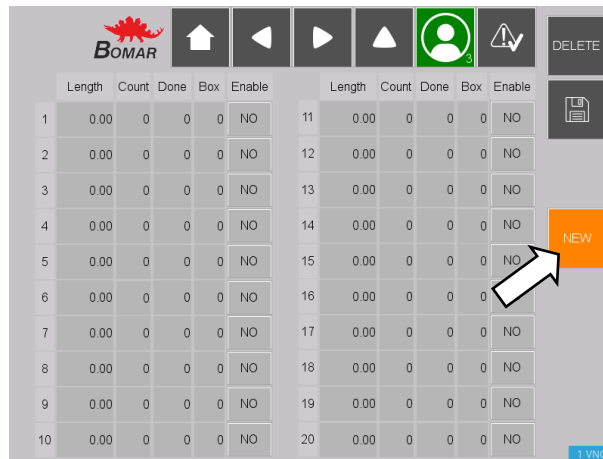
The recipe that is **displayed in this step**, i.e. the **currently loaded recipe**, will control the automatic cycle that is set up by this procedure and which will be started via the **START** button.

In this step possible:

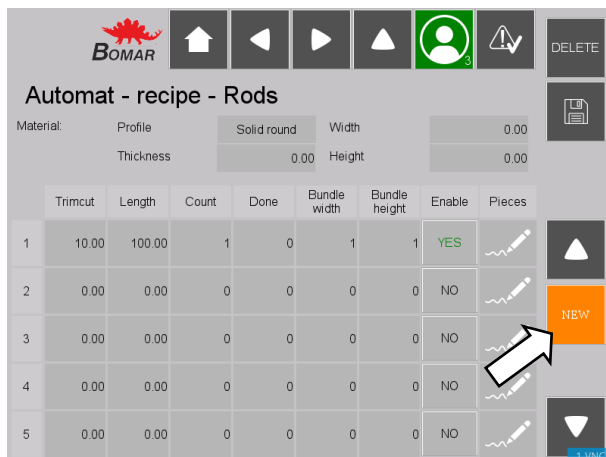
- keep the currently loaded recipe to control the upcoming cycle
- load another recipe from USB
- make adjustments to the existing recipe without imposing

To load another recipe from the USB or to create or edit an existing recipe, use the **"New"** option to go to the automatic cycle type selection screen and the **"Open from USB"** option

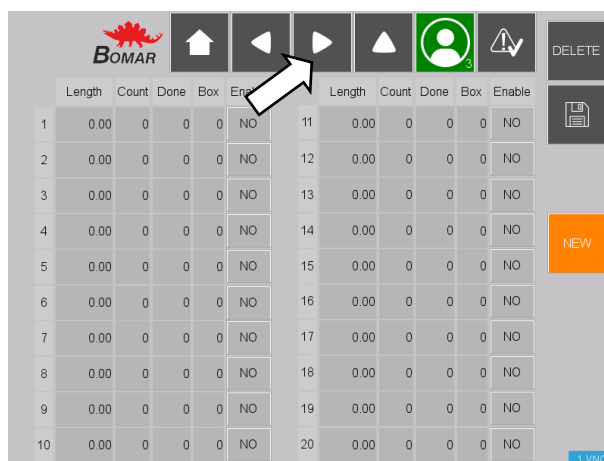
Switching from the recipe screen for the automatic cycle type "PIECES"



Switching from the recipe screen for the automatic cycle type "RODS":



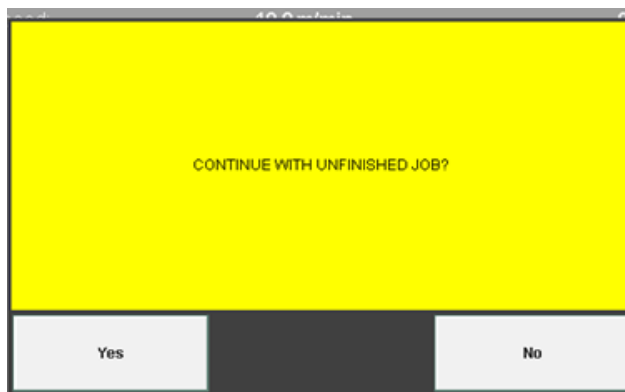
- Once you have set the desired recipe, use the screen scroll option to move to the next screen.



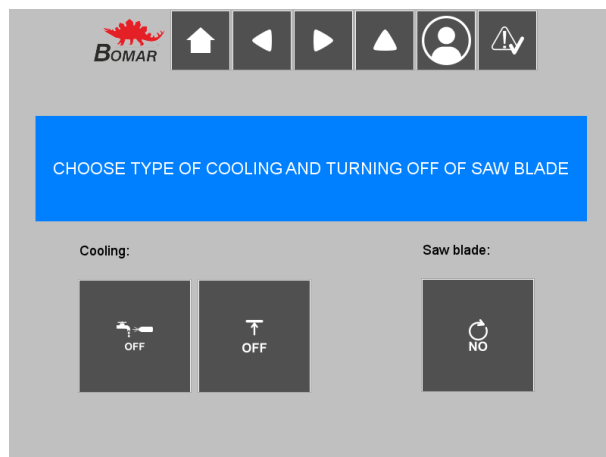
- If the previous automatic cycle has not been completed and the original recipe has not been changed, the options screen for continuing the incomplete automatic cycle appears first in this step.

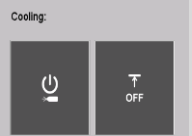
On this screen, the operator selects whether to continue with the incomplete automatic cycle or to start another automatic cycle

For more details on the individual options, see chapter 3.8.4 - Interrupting the automatic cycle"



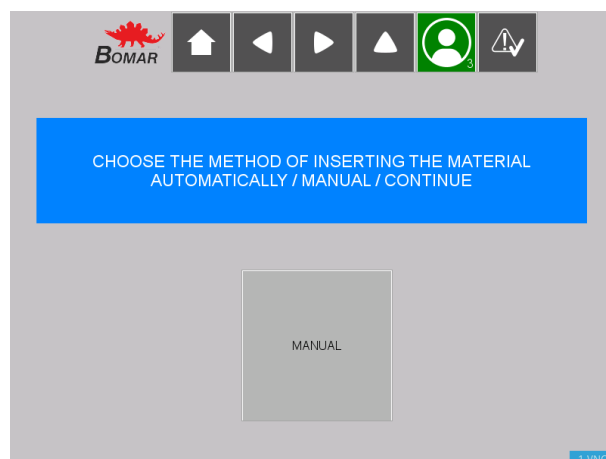
- After pressing the option to move to the next screen on the recipe screen or after pressing the YES/NO option on the options screen to continue the incomplete cycle, a screen will appear on which to select the cutting parameters.



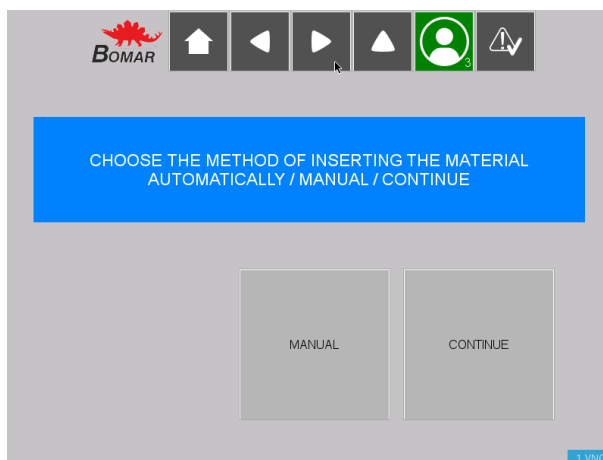
Position	Funktion
	Cooling Switch off coolingt 
	Switch cooling (micronizer) 
	Chlazení vypnout nahoře OFF 
	Switch off cooling - down 
	Saw blade Saw blade do not switch off the trimming 
	The saw blade stops in the up position after cut. 
	The saw blade stops in the up position after cut 

6. Scroll through the screens to the next screen **to select how to feed the material**

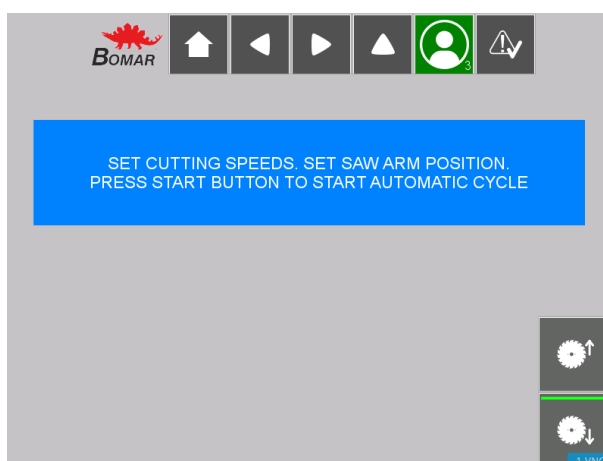
If material is yet to be fed into the saw (see next procedure), a screen will appear with **the option to manually (hand) feed the material**:

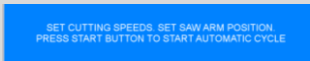


If there is already material inserted in the saw, the face of which has been cut and the **machine has information about the position of the material** (known material), the **screen will also appear with the option "CONTINUE"**. If the operator selects this option, the machine will continue to cut additional pieces according to the recipe from this inserted blank.



7. **Scroll through the screens to the next screen to set the cutting speeds and arm position**



Position	Funktion
	Instrukce pro další postup.
	Saw blade upward Press the buttons to move the arm in the selected direction. To move the arm, the button must be held down
	Saw blade downward Pressing the buttons moves the arm in the selected direction. To move the arm, the button must be held down..

8. **Set the final position of the blade above the material to finish the cut**

Before starting the semi-automatic cutting, it is necessary to set the limitation of the arm lifting height. The lifting height is set so that the saw blade completely cuts through the material to be cut. At the same time, the saw blade should not ride high above the material being cut to avoid unnecessary time delays

Use the "saw blade upwards" button to lift the saw blade upwards. Release the button when it is at the desired height. The blade will come back down when the button is released.

Warning!

After the cut is finished, the saw remembers the blade setting. If higher material is cut during the next cut and the arm height is not changed, the material may not be finished!

9. Press the START button to start the automatic cycle

After starting the automatic cycle with the **START** button: the operator is prompted to insert the material (blank) into the saw

**Insert material under the blade
and confirm by press START button:**

Trimcut:	12345.67	Bundle - horiz.	12345
Width:	12345.67	Bundle - vert.:	123
Height:	12345.67	Length:	12345.67
Thickness:	12345.67		

When inserting material:

- a) open the saw vise and the feeder vise sufficiently for the width of the material to be fed.
- b) manually (without using the feeder) insert the material up to the main vise, manually adjust the length of the cut.

Attention!

The automatic loading mode assumes that the material is loaded with a straight face.

Attention!

The material must not be fed into the main vise by the feeder when loading the material! There is a risk of collision between the material face and the main vise!

Attention!

Clean the main vise area before inserting the material! Dirt can affect the accuracy of the length of the first piece!

- c) Set the clamping jaws as close to the material as possible (recommended value is 5 mm), the further the clamping jaws are from the material, the longer the clamping takes

11 The operator confirms the correct insertion of the material by pressing the START button.

Pressing the START button at the same time starts an automatic cycle or resumes an interrupted automatic cycle.

12. Automatic cycle flow

After pressing the START button, a screen appears showing the progress of the automatic cycle:

Automat - running

Actual task:

Trimcut	Length	Number	Done	Bundle width	Bundle height	Enable
1	0.00	0.00	1	0	0	YES

Material position: 0.00

Feeder position: 156.78

Length	Number	Done	Box	Enable
1	0.00	0	0	NO
2	0.00	0	0	NO
3	0.00	0	0	NO
4	0.00	0	0	NO
5	0.00	0	0	NO
6	0.00	0	0	NO
7	0.00	0	0	NO
8	0.00	0	0	NO
9	0.00	0	0	NO
10	0.00	0	0	NO
11	0.00	0	0	NO
12	0.00	0	0	NO
13	0.00	0	0	NO
14	0.00	0	0	NO
15	0.00	0	0	NO
16	0.00	0	0	NO
17	0.00	0	0	NO
18	0.00	0	0	NO
19	0.00	0	0	NO
20	0.00	0	0	NO

1 VNC

During the cut, you can adjust:

- feed speed of the arm into the cut
- cutting pressure

via the controls on the machine control panel (see ch.3.3.2)

The course of the automatic cycle:

If the material is correctly inserted under the saw blade by the operator:

- the main vise clamps the material
- the saw automatically starts the cut and the material is cut to the manually set length

After cutting the face of the material, the automatic cycle starts according to the settings in the read recipe.

13 Material replenishment during the automatic cycle

During the automatic cycle, the operator replenishes the material each time it is required via a message that appears on the display on the control panel

Invitation to insert material in an automatic "PIECES" cycle



The prompt is displayed if the material is short and it is no longer possible to string the next length for cutting, which is prescribed by the current recipe (automatic cycle type "PIECES")

Inviting the insertion of material in an automatic, "on Bars" cycle:

Remove all the remaining material
from the saw.

Select the method of inserting material.

Width:	12345.67	Bundle - horiz.	12345
Height:	12345.67	Bundle - vert.:	123
Thickness:	12345.67	Length:	12345.67

The prompt is displayed if the prescribed batch for a given piece of inserted blank is finished or if the material is short and it is no longer possible to cut the next length prescribed by the current recipe (automatic cycle of the "RODS" type)

When refilling the material, the operator performs the following operations:

- a) remove the residual piece from the previous cutting from the machine before inserting the new material
- b) when inserting new material manually (without using the feeder), insert the material up to the main vise, manually adjust the length of the cut.
- c) The operator confirms the correct insertion of the material by pressing the START button.

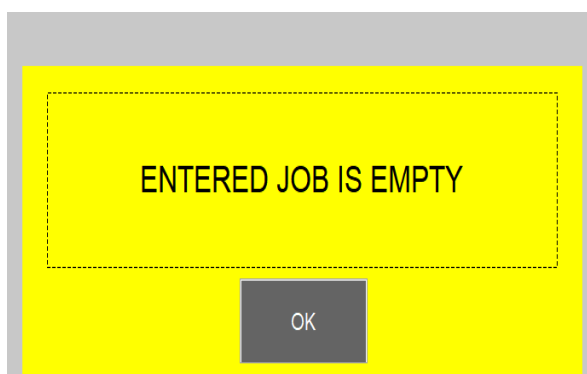
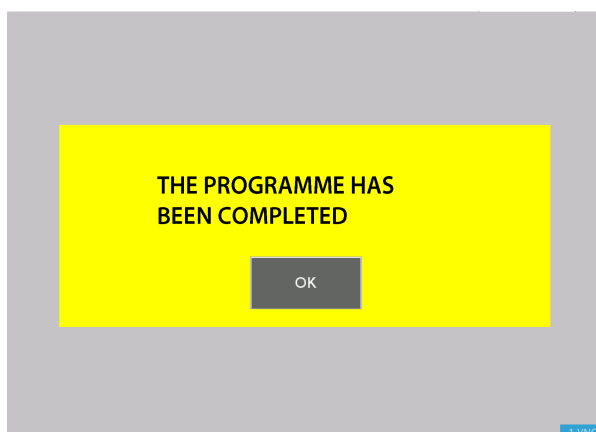
The filling of the material takes place until the end of the entire automatic cycle.

Warning!

When handling material, observe all safety regulations in this manual and other general regulations that apply to the production conditions at the specific workplace.

14 Exit automatic cycle:

- after the automatic cycle, the saw blade is automatically inserted into the base
- the end of the cycle is announced on the display



Automatic the cycle is terminated according to type:

- after all the final pieces specified in the recipe have been cut (automatic cycle type "PIECES")
- after all the semi-finished pieces specified in the recipe have been cut (automatic cycle type "RODS")

15 At the end of the automatic cycle, remove the last cut piece and remove the remaining piece from the machine, if necessary

16 Now you can repeat the whole procedure

3.8.4. Loading material before and during the automatic cycle

Attention!

The automatic loading mode assumes that the material is loaded with a straight face.

Attention!

Clean the main vise area before inserting the material! Dirt can affect the accuracy of the length of the first piece!

The way in which the material is established before the automatic cycle is started is important for the correct running of the automatic cycle.

For safe and correct feeding of the material in the automatic cycle, the material must be loaded before and during the automatic cycle:

- manually - i.e. without using a feeder
- up to the main vise - i.e. the length to be trim

The trimcut length is adjusted manually - i.e. the cut length corresponds to the distance of the face of the inserted piece from the saw blade.

Attention!

The material must not be fed into the main vise by the feeder when loading the material! There is a risk of collision between the material face and the main vise.

The risk of collision is caused by the following factors:

- material dimensions and dimensional deviations
- material shape deviations
- deviations of the feeder when loading to the left or right (in mm)

3.8.5. Unfinished pieces

If a blank is inserted during the automatic cycle of the "TYPE" type, which is not long enough to cut all the prescribed pieces, the insertion of another blank is requested.

The unfinished pieces from the batch prescribed for the incorrectly inserted blank will not be re-cut from the next blank, they will only be recorded in the table of unfinished pieces.

The table of unfinished pieces can be viewed from the main screen of the control software:

A table of unfinished pieces will also be displayed at the end of an automatic "CUT" cycle in which not all pieces have been cut.

	Length	Count		Length	Count		Length	Count		Length	Count
1	12345.67	1234	11	12345.67	1234	21	12345.67	1234	31	12345.67	1234
2	12345.67	1234	12	12345.67	1234	22	12345.67	1234	32	12345.67	1234
3	12345.67	1234	13	12345.67	1234	23	12345.67	1234	33	12345.67	1234
4	12345.67	1234	14	12345.67	1234	24	12345.67	1234	34	12345.67	1234
5	12345.67	1234	15	12345.67	1234	25	12345.67	1234	35	12345.67	1234
6	12345.67	1234	16	12345.67	1234	26	12345.67	1234	36	12345.67	1234
7	12345.67	1234	17	12345.67	1234	27	12345.67	1234	37	12345.67	1234
8	12345.67	1234	18	12345.67	1234	28	12345.67	1234	38	12345.67	1234
9	12345.67	1234	19	12345.67	1234	29	12345.67	1234	39	12345.67	1234
10	12345.67	1234	20	12345.67	1234	30	12345.67	1234	40	12345.67	1234

If the operator continues the same automatic cycle after the interruption, the data in the uncut table will not be deleted.

The uncut table will be automatically cleared:

- if the preparation of the next automatic cycle will be started after the previous cycle has finished
- if the option NO is selected when an automatic cycle is interrupted - i.e. do not continue with an incomplete job

3.8.6. Interruption and termination of the automatic cycle

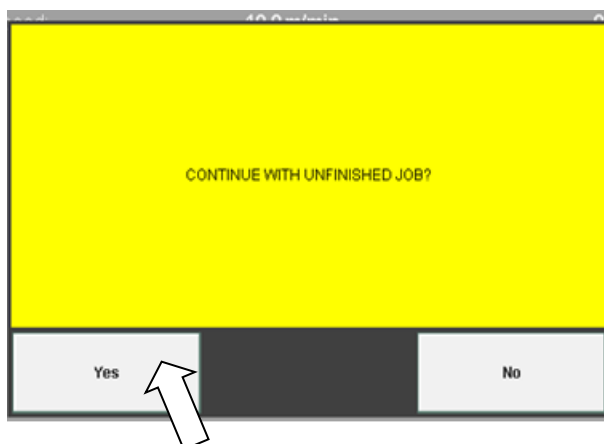
Interruption automatic cycle

When the automatic cycle is interrupted, it is always possible in a standard situation:

- to keep in the machine memory the information at which point in the recurrence the interrupted automatic cycle was at the time of the interruption (information about the number of pieces already cut), which allows the cycle to continue automatically from the last piece cut onwards
- retain the information archived in the table of uncut pieces for the automatic cycle of type TYPE, which allows to evaluate the status of uncut pieces after the automatic cycle has been automatically terminated
- to continue the interrupted cycle from the point at which the interruption occurred, either automatically (Pause type interruptions) or after checking and adjusting the automatic cycle settings (other types of interruptions).

If the operator wants to use the above mentioned option when interrupting a cycle, he must not terminate the automatic cycle at the same time during the interruption, i.e:

- must not open another recipe
- must select "YES" on the screen asking if he/she wants to continue the job in progress



- **Attention!**

If the automatic cycle is interrupted and it is obvious that you want to continue the interrupted automatic cycle without cutting the currently inserted material, make sure that the machine does not lose information about the position of the material - i.e. the material must remain clamped, at least in one of the two vises ("known material")!

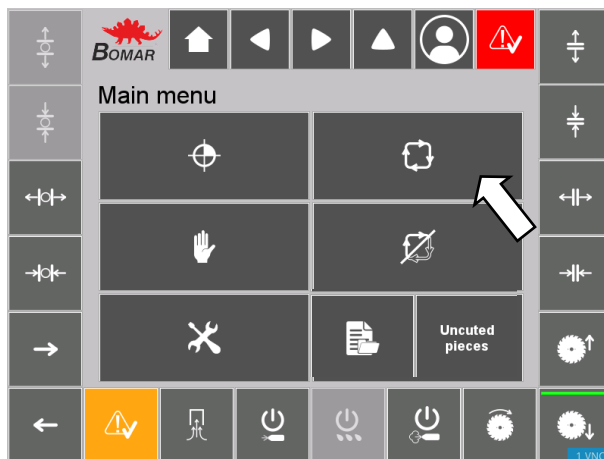
3.8.6.1. Standard procedure for resuming an interrupted automatic cycle

1. Remove the cause that interrupted the automatic cycle
2. Bring the machine back into operating condition

If the Emergency Stop Switch is pressed, release the button by turning it.

If the safety circuits are interrupted, switch on the safety circuits by pressing the button on the control panel.

3. Confirm the messages that appear on the control display.
4. After confirming the last message, the screen will appear:

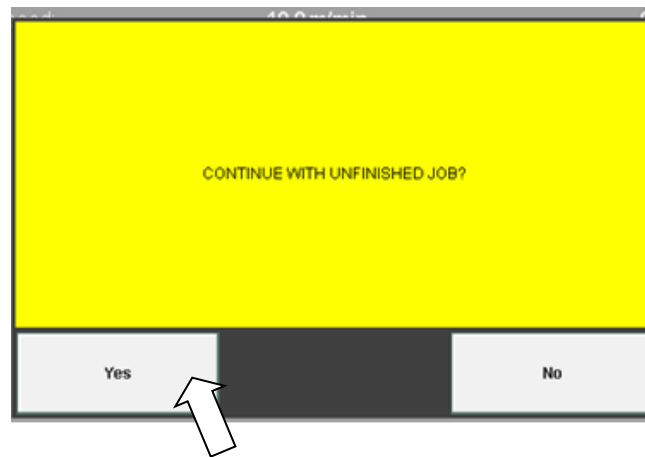


On this screen, select the option to enter the automatic cycle settings

5. Scroll through the automatic cycle settings to the step where pressing START initiates the continuation of the automatic cycle

Attention!

The operator must select "YES" on the screen asking if they want to continue with the job in progress.



Attention!

Before resuming an interrupted automatic cycle, pay special attention to the material status of the machine - i.e., consider next steps if material remains in the machine after the interruption

If the machine has information that the entire blank was not cut during the interruption, then after selecting YES/NO, another screen will appear on the options screen to continue the incomplete automatic cycle asking if the operator wants to continue cutting with the work in progress:

3.8.6.2. Automatic cycle interruption methods

Automatic interruption - material depleted

The machine control software evaluates that it has run out of material if all final pieces are not cut in the automatic "PIECES" cycle or if all blanks are not cut in the automatic "BARS" cycle and the saw cannot continue cutting more pieces.

The saw cannot continue cutting more pieces if any of these circumstances occur:

- a) it is not possible to cut the next required length from the remaining length of the piece clamped in the feeder, and it is not possible to feed another piece of material into the feeder for cutting using the external feeding system.
- b) the length of the remaining piece clamped in the feeder will not be sufficient to push the cut piece out of the saw

In case **ad a)**, the machine stops automatically and the ongoing automatic cycle is interrupted.

In case **ad b)**, depending on the circumstances and **the operator's choices, either the rest can be cut further or the machine will also stop and the automatic cycle will be interrupted.**

The procedure for continuing the interrupted cycle after material replenishment is described in the chapter on material replenishment in the automatic cycle of the type PIECES and in the automatic cycle of the type BARS.

Button STOP

- **1x press – interrupt automatic cycle of „Pause“ type**

If the operator presses 1x STOP when the cut has not yet started, the automatic cycle is interrupted immediately.

If the operator presses 1x STOP while the cut is in progress, the automatic cycle is interrupted only after the saw has finished cutting.

When the automatic cycle is interrupted by pressing 1x STOP, the machine is set to "Pause" mode.

The "Pause" mode can be terminated **by pressing the START** button and the cycle interrupted by the pause will immediately resume automatically from the point of interruption.

- **2x press – interrupt automatic cycle.**

Pressing the STOP button twice can be used to interrupt the automatic cycle.

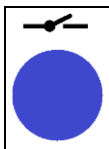
To resume the cycle, follow the **standard procedure for resuming an interrupted automatic cycle** - as described above.

Emergency stop switch.

To resume the cycle follow the **standard procedure for resuming an interrupted automatic cycle** as described above

By interrupting the safety circuits

Use the button on the saw's control panel to activate the saw's safety switches



To resume the cycle, follow **the standard procedure for resuming an interrupted automatic cycle** - as described above.

3.8.7. Automatic cycle ending

- It will no longer be possible to resume the ended automatic cycle from the step at which it was interrupted.

When the automatic cycle is ended, information on the number of cut up pieces is always deleted and the machine loses information on the step in which the system was before being ended.

If the operator wants to resume the interrupted cycle from the step in which it was interrupted, s/he must adapt the recipe so that the machine gets information on from where cutting should be resumed or s/he must compile a special recipe for the rest of the cycle.

If the operator wants to adapt the recipe, s/he can mark with cross the lines which you do not want to cut or modify the number of pieces in the line which has not been finished.

If the adapted recipe is not saved, the corrected data will only be entered until they are adapted again or until another recipe is opened.

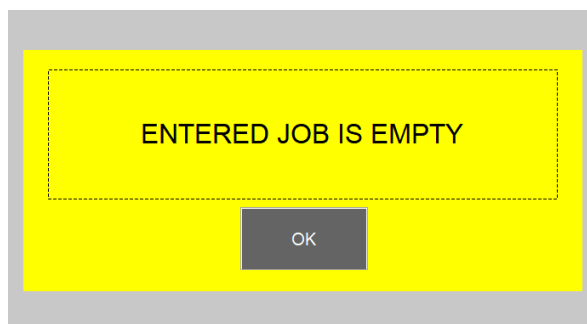
- If the BARS type automatic cycle is ended during the cycle, all information in the table of unfinished pieces will be deleted automatically.
- If the BARS type automatic cycle is ended automatically after the cycle has been completed, information in the table of unfinished pieces will be preserved.

3.8.7.1. Methods of automatic cycle ending

- **Automatic ending – after the cycle is completed**

The automatic cycle is terminated after its completion – i.e. after all final pieces have been cut in the automatic cycle type "PIECES" or after all blanks have been cut in the automatic cycle type "BARS"

When a completed automatic cycle is automatically terminated an automatic cycle termination message always appears on the control display.



- Opening a new recipe

If the operator, after interrupting the currently running automatic cycle, opens a different recipe than the one according to which the interrupted cycle was running.

After opening a new recipe, if the operator goes through the automatic cycle preparation and presses the **START** button – according to the new recipe

By the “NO” option on the screen with enquiry whether s/he wants to continue in the unfinished job:



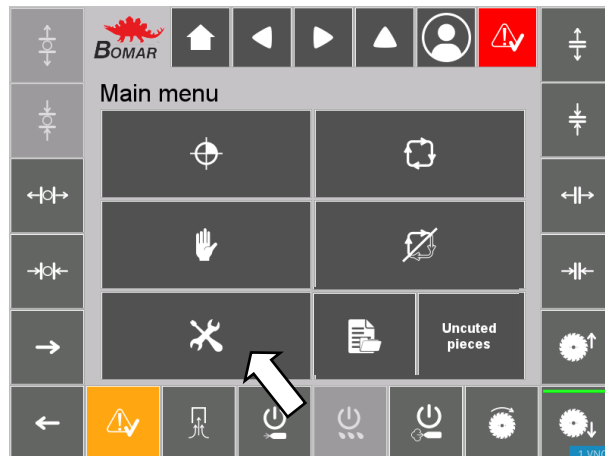
If the operator selects "NO":

- it will not be possible to continue the interrupted automatic cycle from the step in which the interruption occurred.
- If the operator goes through the automatic cycle preparation and presses the **START button** - then the interrupted automatic cycle will be restarted from the beginning - i.e. from the first non-zero checked recipe line.

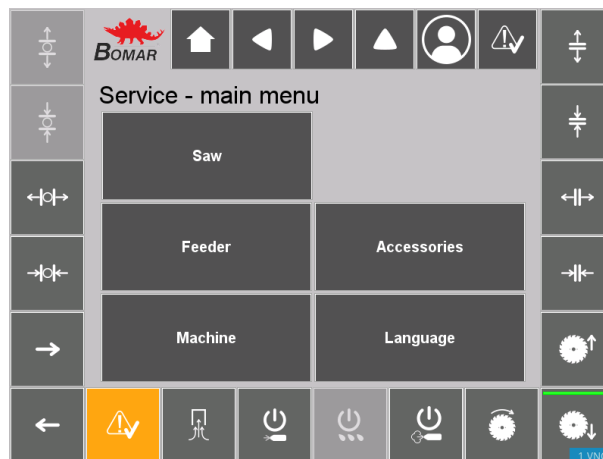
4. **Nastavení servisních parametrů/ Einstellung der Serviceparameter/ Setting of service parameters**

4.1. Setting of service parameters

1. Select the option for entering service parameters **on the main screen of the control software:**



2. The options screen **appears to select options for the settings**



4.2. Entering a password to insert service parameters

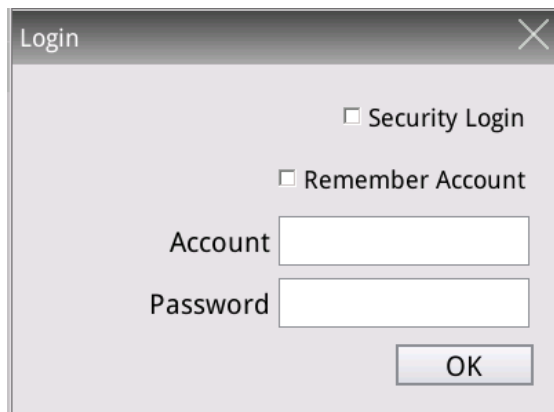
In the individual screens, it is only possible to set the parameters which are coloured immediately or after the password at the certain hierarchical level is entered. Parameters the boxes of which remain uncoloured can only be set at a higher hierarchical level.

Parameter setting options are protected by passwords at several hierarchical levels.

Hierarchical level	Password
SERVICE1	1234
SERVICE2	3467
SERVICE3	2468
SERVICE4	135248



When you **touch the user login icon**, a menu for entering the password will pop up. The password can be entered at any time during parameter setting.

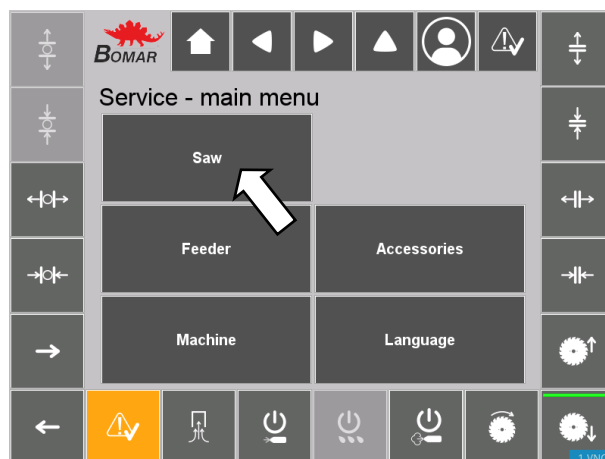


Login dialog box with fields for Account and Password, and checkboxes for Security Login and Remember Account. An OK button is at the bottom right.

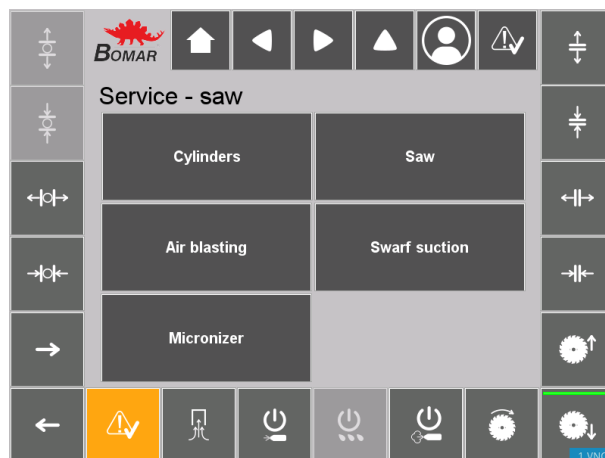
The password can again be set by activating the keypad after touching it in the password entry window.

4.3. Setting the service parameters of the saw

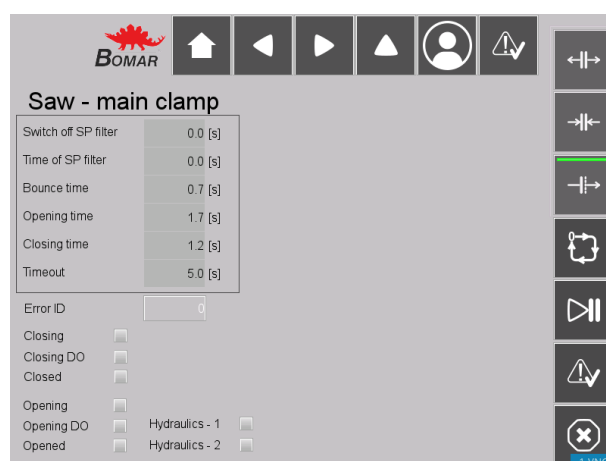
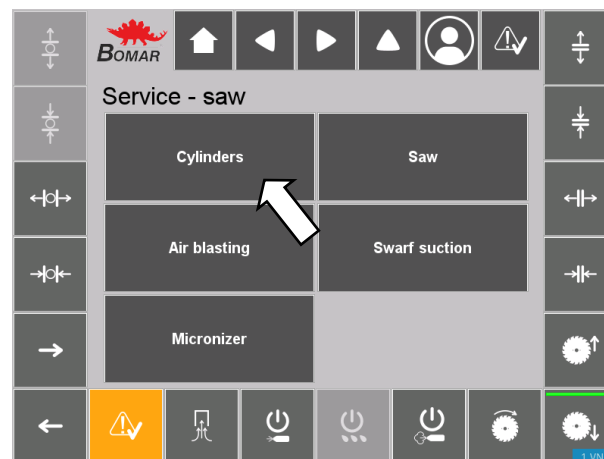
1. On the unit selection screen, select "Saw"



2. The following screen shows the options for setting the saw units:

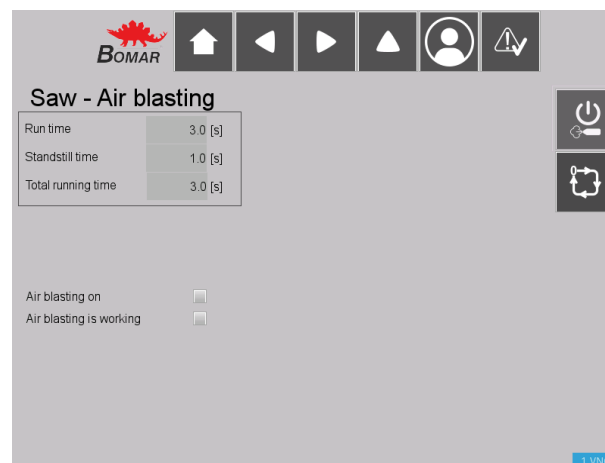
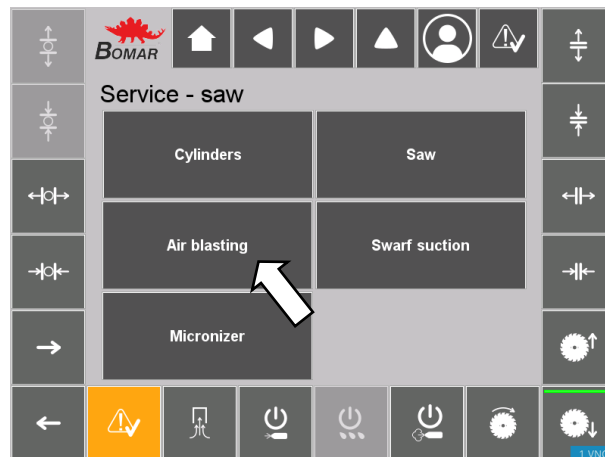


4.3.1. Service parameters of hydraulic cylinders of the saw



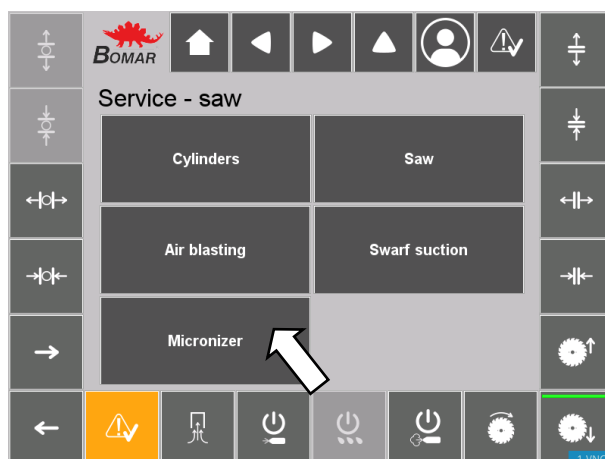
Position	Funktion
SP filter time	Switching filter time, filter for filtering out oscillations on the end encoder, when moving in the direction of the end encoder
Bounce time	Vise rebound time
Opening time	Vise opening time
Clamping time	Vise closing time
Timeout	Time limit for opening and closing the hydraulic cylinder
Error ID	If an error occurs, the error number is displayed (corresponds to the error listing)
	Display the current status  - the vise opens  - the vise close  - unknown condition
  	Icons for controlling the hydraulic cylinder  Open  Close  ...Bounce
	Restart, the values remain set.
	Interrupt and restart the line.
	Error message.
	Confirmation of error
	Stop unit movement

4.3.2. Service parameters of air blasting (optional accessory)



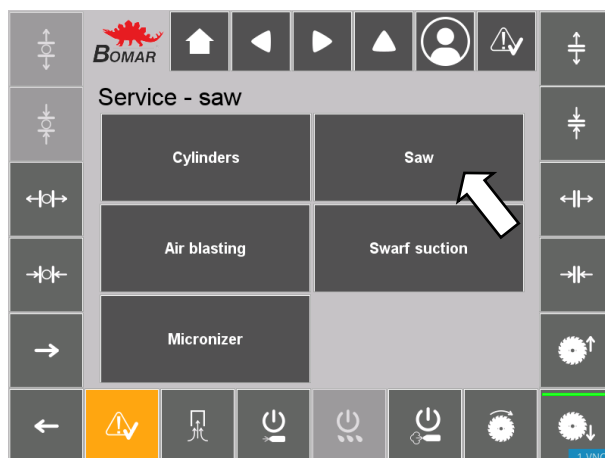
Position	Funktion
Run time	Information after what time to switch on the air blasting
Standstill time	Information after what time to turn off the air blasting
Total running time	Total off time air blasting

4.3.3. Service parameters of Micronizer (optional accessory)



Position	Funktion
Run time	Information after what time to switch on the micronizer
Standstill time	Information after what time to turn off the micronizer

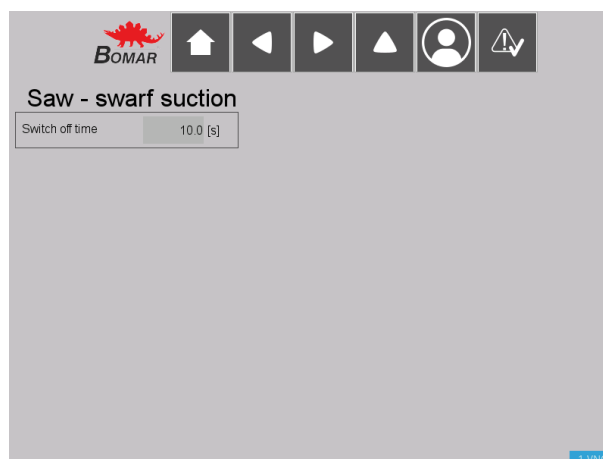
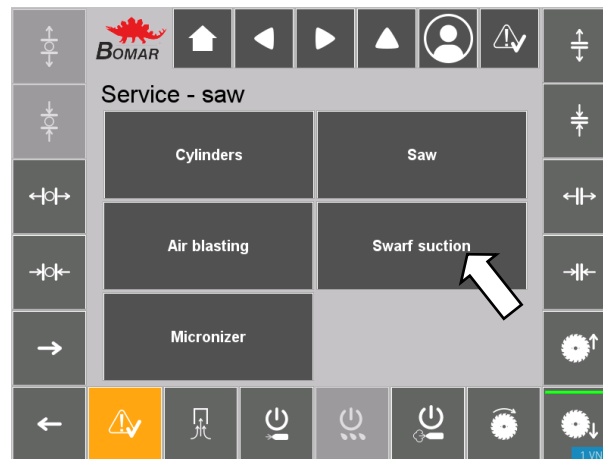
4.3.4. Service parameters of Saws





On each screen, you can set only **those parameters that are colored immediately or after entering the password of a certain hierarchical level**. Parameters for which the windows remain uncoloured can only be set at a higher hierarchical level.

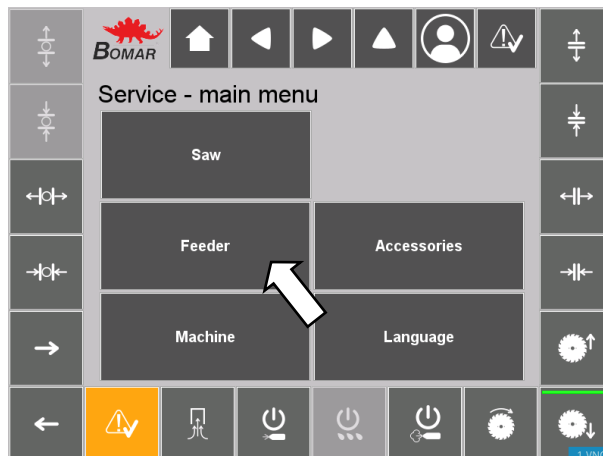
4.3.5. Service parameters of swarf suction (optional accessory)



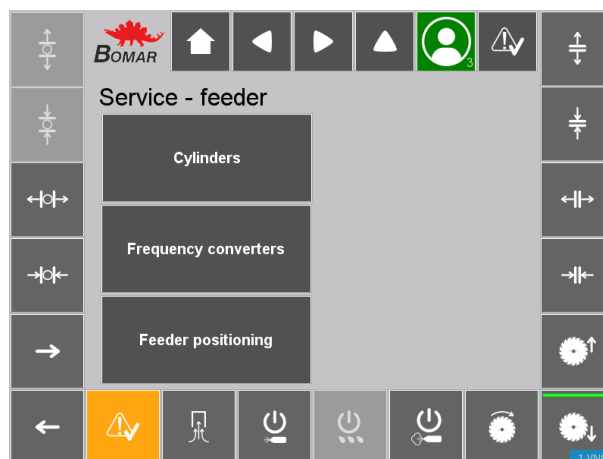
Position	Funktion
Switch off time	Information after what time to switch off the swarf suction

4.4. Setting the service parameters of the feeder

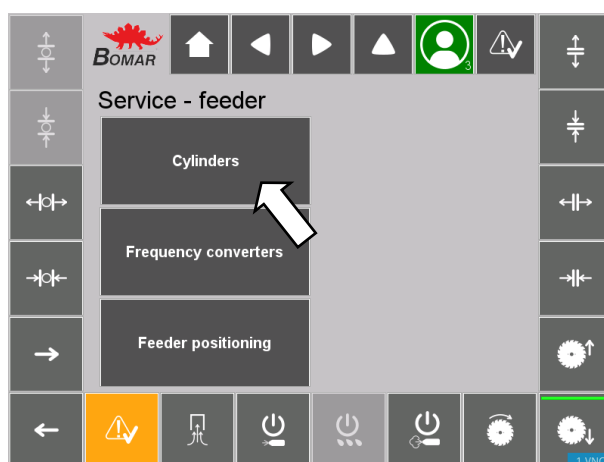
1. From the setup options screen, select **"Feeder"**

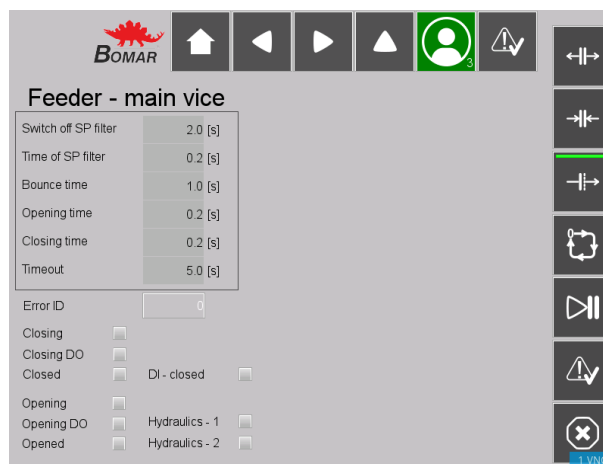
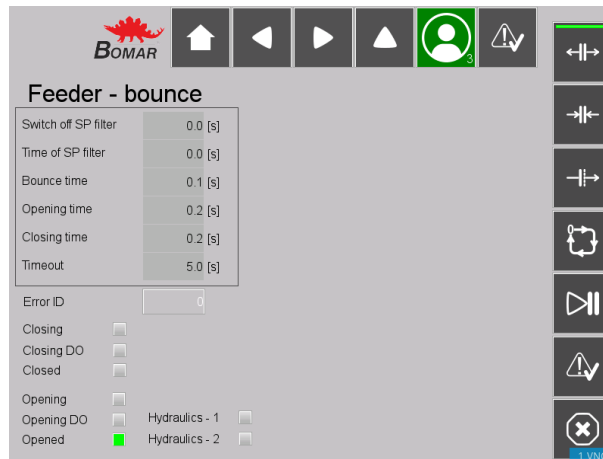


2. The followin screen shows the options for **setting the feeder options**



4.4.1. Service parameters of the feeder cylinders

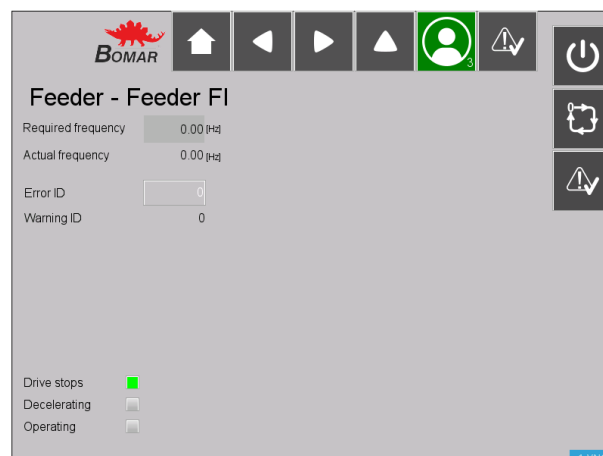
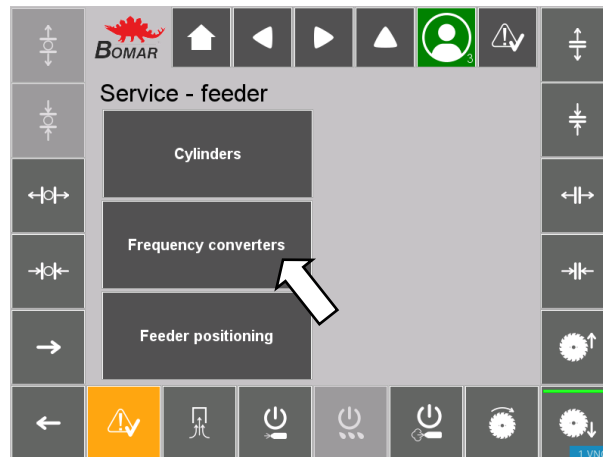




Position	Function
Switch of SP filter	Switching filter time, filter to filter out oscillations on the end sensor when leaving the position
Time of SP filter	Switching filter time, filter for filtering out oscillations on the end encoder, when moving in the direction of the end encoder
Bounce time	Vise rebound time
Opening time	Vise opening time
Clamping time	Vise closing time
Timeout	Time limit for opening and closing the hydraulic cylinder
	Icons for controlling the hydraulic cylinder  Open  Close  ... Bounce

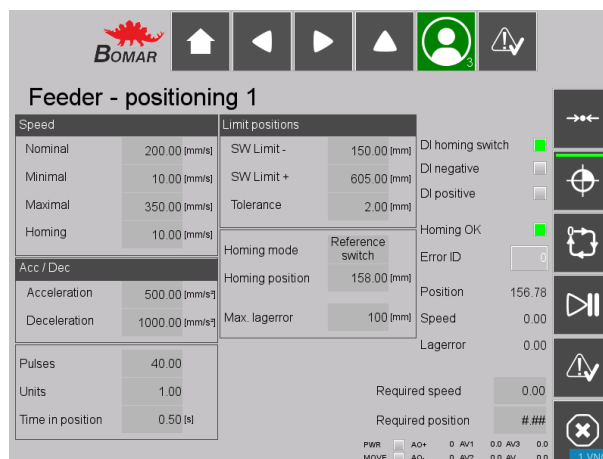
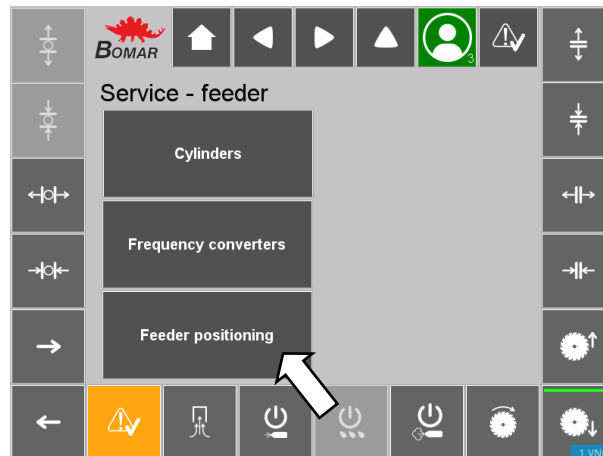
Position	Function
	Restart, the values remain set.
	Interrupt and restart the line.
	Error message.
	Confirmation of error
	Stop
	Bounce
	Release

4.4.2. Service parameters of the feeder frequency converters



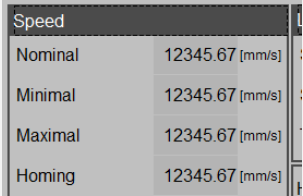
On each screen, you can set **only those parameters that are colored immediately or after entering the password of a certain hierarchical level**. Parameters for which the windows remain uncoloured can only be set at a higher hierarchical level.

4.4.3. Setting the feeder positioning parameters



On each screen, you can set **only those parameters that are colored immediately or after entering the password of a certain hierarchical level**. Parameters for which the windows remain uncoloured can only be set at a higher hierarchical level.

The service parameters controlling the feeder movements are protected by the manufacturer's password.

Position	Function
	Setting speed parameters for positioning
	Setting the acceleration / deceleration of the unit's movement

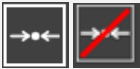
Position	Function								
<table border="1"> <tr><td>Pulses</td><td>12345.67</td></tr> <tr><td>Units</td><td>12345.67</td></tr> <tr><td>Time in position</td><td>12345.67 [s]</td></tr> <tr><td>PWM period</td><td>12345</td></tr> </table>	Pulses	12345.67	Units	12345.67	Time in position	12345.67 [s]	PWM period	12345	Pulses, Units - position measurement - used for correction of measurement Time in position - the time the unit must be in position for the movement to be judged complete
Pulses	12345.67								
Units	12345.67								
Time in position	12345.67 [s]								
PWM period	12345								
<table border="1"> <tr><td colspan="2">Limit positions</td></tr> <tr><td>SW Limit -</td><td>12345.67 [mm]</td></tr> <tr><td>SW Limit +</td><td>12345.67 [mm]</td></tr> <tr><td>Tolerance</td><td>12345.67 [mm]</td></tr> </table>	Limit positions		SW Limit -	12345.67 [mm]	SW Limit +	12345.67 [mm]	Tolerance	12345.67 [mm]	Settings: - minimum permitted unit positions - maximum permitted unit positions - permitted tolerances of unit positions
Limit positions									
SW Limit -	12345.67 [mm]								
SW Limit +	12345.67 [mm]								
Tolerance	12345.67 [mm]								
<table border="1"> <tr><td>Homing mode</td><td>Direct</td></tr> <tr><td>Homing position</td><td>12345.67[mm]</td></tr> <tr><td>Max. lagerror</td><td>1234567</td></tr> </table>	Homing mode	Direct	Homing position	12345.67[mm]	Max. lagerror	1234567	Refering mode – refering type - Directly - To referencing switch - To limit switch - Torque Reference position - setting the reference position of the unit Max. trailing error - if the requested parameter value differs by more than this specified value, the machine will declare an error.		
Homing mode	Direct								
Homing position	12345.67[mm]								
Max. lagerror	1234567								



Position	Function										
<table><tr><td colspan="2">PID 1st</td></tr><tr><td>Kp</td><td>12345.67</td></tr><tr><td>Ki</td><td>12345.67</td></tr><tr><td>Min. Output</td><td>12345.67</td></tr><tr><td>Max Output</td><td>12345.67</td></tr></table>	PID 1st		Kp	12345.67	Ki	12345.67	Min. Output	12345.67	Max Output	12345.67	PID controller Switching - position tolerance after parameter switching KP1 - parameter , proportional component 1 Tn1 - parameter, integration component
PID 1st											
Kp	12345.67										
Ki	12345.67										
Min. Output	12345.67										
Max Output	12345.67										
<table><tr><td colspan="2">PID 2nd</td></tr><tr><td>Kp</td><td>12345.67</td></tr><tr><td>Ki</td><td>12345.67</td></tr><tr><td>Min. Output</td><td>12345.67</td></tr><tr><td>Max Output</td><td>12345.67</td></tr></table>	PID 2nd		Kp	12345.67	Ki	12345.67	Min. Output	12345.67	Max Output	12345.67	
PID 2nd											
Kp	12345.67										
Ki	12345.67										
Min. Output	12345.67										
Max Output	12345.67										

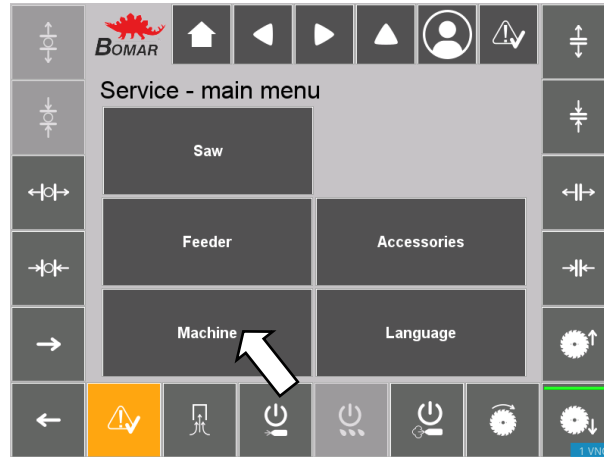
Position	Function
Change PID A 12345.67 [mm] Change PID B 12345.67 [mm] Pulses 12345.67 Units 12345.67	Position measurement - used for measurement correction
Insensitivity + 12345.67 Insensitivity - 12345.67	Max. allowed deviations from zero origin.
Time in position 12345.67 [s] Position tolerance 12345.67 [mm] PWM period 12345	Time in position - the time the unit must be in position for the movement to be judged complete Position tolerance - unit position tolerance

Meaning of other symbols on the positioning screens:

Position	Function
	Unit is/is not referring
	Unit is/is not in position
	Restart, the values remain set.
	Interrupt and restart the line.
	Error message.
	Error confirmation
	Stop unit movement

4.5. Setting machine service parameters

1. On the setup options screen, select "Machine"



2. The following screen shows the options for **setting machine options**:



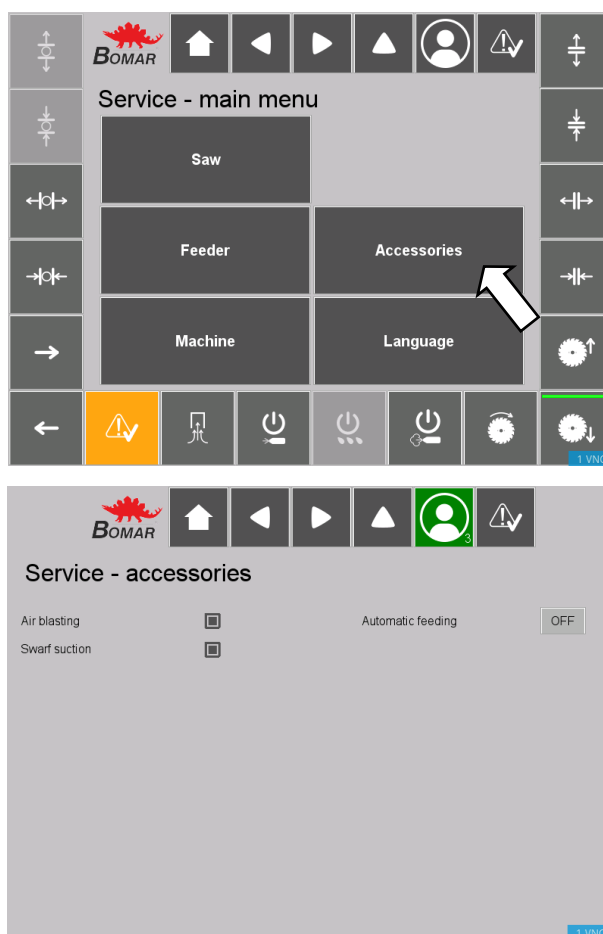
On each screen, you can set only **those parameters that are colored immediately or after entering the password of a certain hierarchical level**. Parameters for which the windows remain uncoloured can only be set at a higher hierarchical level.

Position	Function
Saw blade width	Specified actual belt width
Safe grip - saw	The minimum length beyond which the clamp will safely clamp the material.
Safe grip - feeder	The minimum length over which the clamp can safely clamp the material. If a smaller length for clamping is found on the cut piece, the piece will be evaluated as residue.
Width of feeder jaw	The minimum length over which the clamp can safely clamp the material. If a smaller length for clamping is found on the cut piece, the piece will be evaluated as residue.
Laser distance - feeder	Distance of the laser beam on the feeder from the nearest edge of the feeder jaw

Position	Function
Laser distance - saw	Distance of the laser beam on the saw from the nearest edge of the jaw of the vise on the saw
Automat - loading position	The position to which the feeder enters to grip the material in automatic mode with automatic material loading.
Width of the main vise	Vise width = width of the movable jaws of the vise
Distance of the main vise - saw	Value the distance of the main vise on the saw in mm.

4.6. Setting accessories service parameters

On the "Service - Main Menu" screen, select Accessories "Accessories":

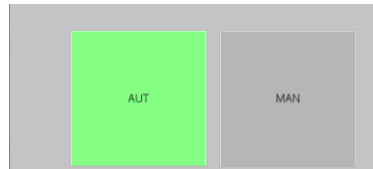


Check the option for the accessories installed on the saw that you want to use.

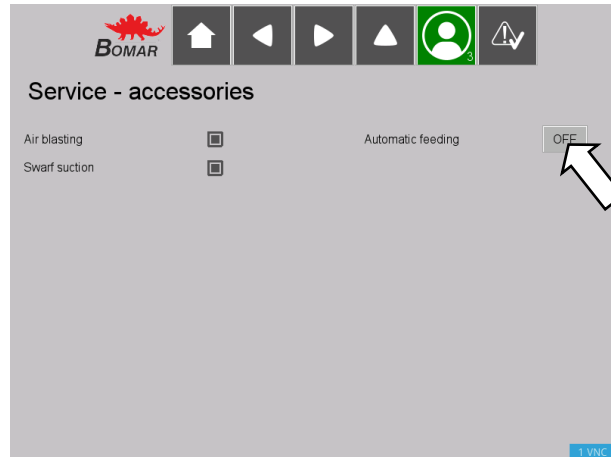
Notice!

If the saw is equipped with an automatic weighing device (feeder lock), then:

- on the screen for selecting the method of material binding, the option "AUT" is displayed (otherwise this option is not displayed at all).

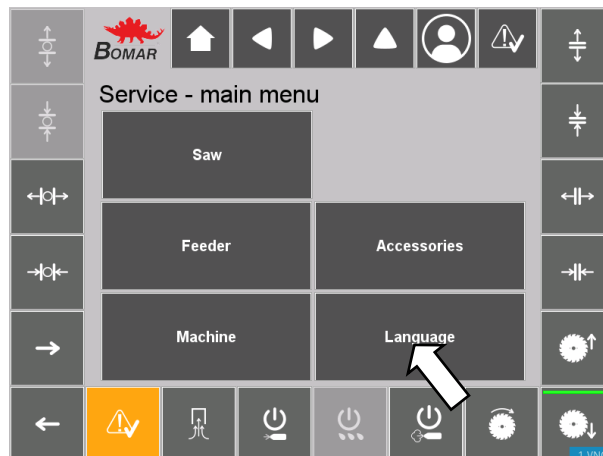


- On the service parameters, the option for automatic loading is checked on the screen for Accessories from the manufacturer

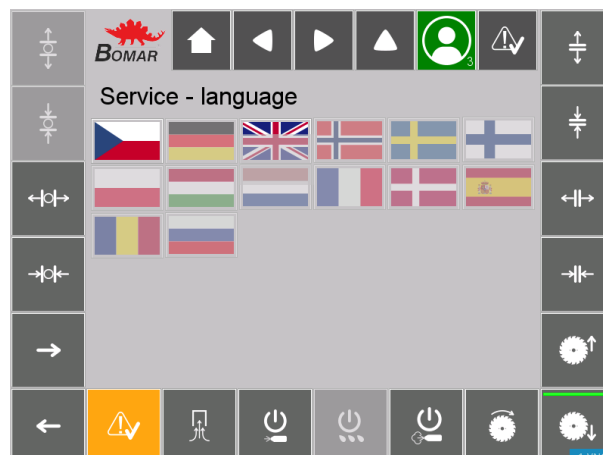


4.7. Setting language service parameters

On the "Service - Main Menu" screen, select Accessories "Language":



On the service screen "Service - language" it is possible to set the language versions for controlling the device



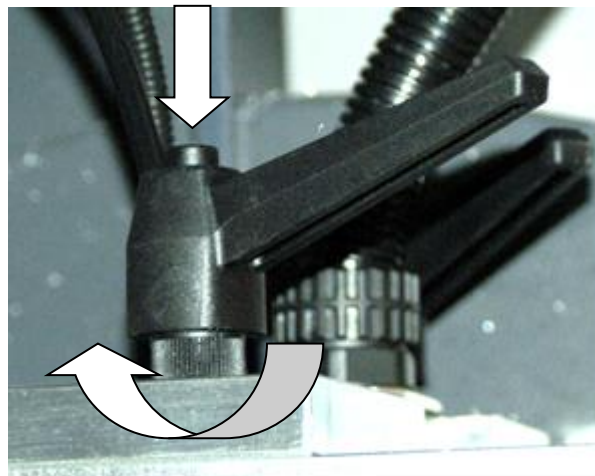
Standard options are Czech language + language according to customer's order.

5. **Seřízení pily/ Einstellung der Säge/ Machine adjustment**

5.1. Circular saw adjustment

5.1.1. Clamping setup

1. Release the securing lever of the clamping cylinder.



2. Move the clamping cylinder so that the clamping jaw is located about 10 mm from the material.



3. Tighten the securing lever again.
4. Adjust all 4 clamping cylinders in the same way.

5.1.2. Setting the speed of the saw frame lifting

Set the speed of the saw arm lifting into cut using the turning knob of the throttle valve.



- **Lower** the speed of the saw arm lifting into cut by turning the knob **clockwise**.

Note: If you keep closing the throttle valve too tightly, the valve seat may wear off which causes its leakage. Therefore, close the valve always gently.

- **Increase the** speed of the saw arm lifting into cut by turning the knob **anticlockwise**.

5.1.3. Regulation of the vices' clamping pressure



The throttle valve sets the clamping pressure of the main and feeder vices. The level of pressure is set pursuant to the cut material.

1. Pull out the throttle valve a bit.
2. Set the required clamping pressure by turning the valve. The level of pressure is set accordingly to the cut material.
3. Slide the throttle valve back in.

5.1.4. Halogen lighting of working area (optional accessory)

Light the working area of the machine with natural light and helps to facilitate cutting with a band saw.

Proper lighting in your work area greatly enhances ergonomics machines

Lighting switch is installed on the switchboard.



5.1.5. The device for blowing of chips from the space for the cutting blade

If semi-finished products made of copper and its alloys are intended to be cut at this saw, the saw have to be equipped with the device for blowing of chips from the space for the cutting blade away from producer Bomar spol. s. r. o.

This device includes a nozzle for compressed air, which is located in the disc space opposite the exhaust outlet. The compressed air flowing from this nozzle facilitates the removal of heavy chips from the disk space by suction.

The device is started automatically.

This device is not a standard part of the saw. For saws which are intended to be used for cutting copper and/or its alloys, the requirement for this equipment must be stated in the machine order.

5.2. Material insertion

- Never walk under a suspended load!
- Never climb onto the gravity-roller conveyor!
- Do not hold the material for clamping material to the vice! The vice can cause injury!

5.2.1. Handling agent selection

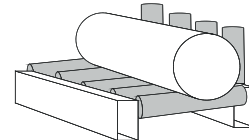
- Use sufficient handling agents to lift and transfer the material!
- Handle the material only using a lift truck or use suspension strands and a crane!
- Do not use the lift truck or crane without a license!

5.2.2. Insertion

Insert material into the vice and make sure, that the material cannot move in the vice or fall from the vice after clamping. When you are cutting long pieces of the material (for example rods, tubes), you must use roller conveyors for moving material to the band saw. Contact Bomar for more information about roller conveyors

Make sure the conveyor is long enough and the material cannot fall off the conveyor.

Make sure that round materials always lean against at least two vertical rollers and that they cannot fall off the conveyor!



6. Údržba stroje / Wartung / Machine maintenance

6.1. Replacing of the saw blade

6.1.1. Cover of the space for the saw blade

A time lock is installed at the cover, and the time lock is activated and locks the cover whenever the cover is closed and the machine's safety circuit is closed.

When the cover is secured with the time lock, the cover can only be opened if the following conditions are met:

- **the machine is switched on by the main switch** (under voltage)
- **the safety circuit is deactivated** (emergency stop switch pressed or workspace cover opened)

After meeting both conditions for opening the cover, **the cover is still secured by the time lock for some time period, the length of the time period is set by the manufacturer to min. 60 sec.** (The time for which the time lock is closed corresponds to the time required to stop the saw blade speed completely.)

Warning!

After deactivation of the safety circuits of the machine, which occurred during the rotation of the disc, the disc still rotates for a certain time before it is completely stopped.

It is forbidden to overcome the safety elements for the time protection of the cover for the saw blade, the rotating blade can cause serious injuries!



After the intervention in the space for the saw blade, the machine can only be put back into operation after switching on the main switch, closing the cover and activating the safety circuits of the machine.

6.2. Saw blade dismantling

WARNING!

*After switching off the machine, the blade will still rotate for at least one minute. **Opening the door in this time is not allowed and can cause serious injuries!***

Doors are secured with a lock. Approximately 50 s after the last cutting machine doors are unlocked. The machine must be connected to the network and turned on

1. Switch off the main switch of the circular saw.
2. Open the door at the pedestal.



3. Loosen the nut, pull the washer and remove the saw disk.



4. Pull off the washer and remove the blade.

6.3. Saw blade installation

1. Prior to installation, clean the shaft thoroughly of all traces of chips and dirt. Keep in mind **the teeth direction when installing the saw disk**.
2. Put on the saw disk and the washer. Tighten the nut fast.
3. Close the door at the pedestal.
4. Switch the main switch on. The circular saw is set up.

6.4. Cooling agents and chips disposal

The quality of the cooling agent will deteriorate due to:	If the solution is too weak:	If the solution is too strong:
• use of contaminated water • impurity • outside oil contamination (hydraulics, gears) • high operating temperatures • lack of air circulation • wrong concentration	• corrosion protection is diminished • lubrication decreases • microbial attack is more likely	• the cooling ability is decreased • foam behavior increases • emulsions stability deteriorates • sticky residue develops

6.4.1. Cooling liquid inspection

Check the state of the cooling liquid periodically. Keep notes in chapter **Cooling agents and chips removal** for state checking and cooling liquid filling.

If there is little coolant in the tank, insufficient cooling can cause damage to the saw disk.

On the other side excess liquid can overflow from the tank to the floor and pose a danger to the workers.

6.4.2. Chips disposal

Chips resulting from cutting operations must be disposed of in accordance with the relevant regulations.

- Let the chips drip excess fluid!
- Fill a watertight container with the chips! Be careful that the container does not leak, because even after a long dripping time, they still contain coolant residue.
- *Place the container into the care of a disposal company equipped for the disposal of chips contaminated with cooling liquid.* In case the machine is equipped with micro-spray installation, the chips must also be handed over to a disposal company.

6.5. Hydraulic, Greases and oils

6.5.1. Lubricant greases

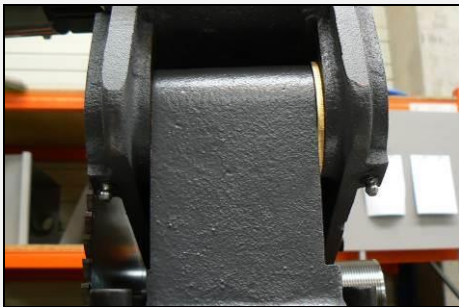
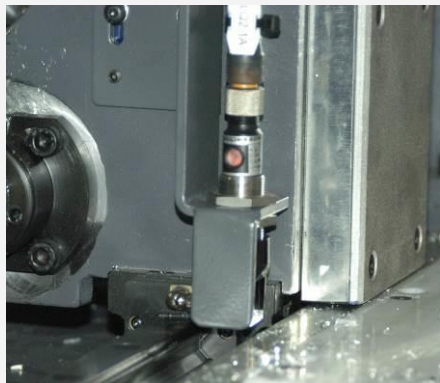
We recommend using lithium based saponified grease, class NGLI-2 for lubrication. Different greases are mixable, if their oil bases and consistence type are identical.

Comparative table of the lubricant greases:

Manufacturer	Type of the lubricant grease
BP	Energrelse LS - EP
DEA	Paragon EP1
Esso	FETT EGL 3144
	Beacon EP 1
	Beacon EP 2
FINA	FINA LICAL M12

Manufacturer	Type of the lubricant grease
Klüber	Microlube GB0
	Staburags NBU8EP
	Isoflex Spezial
Optimol	Optimol Longtime PD 0, PD1, PD2
Shell Aseol AG	ASEOL Litea EP 806-077
Texaco	Multifak EP1

There are several places on the machine, which are necessary to be greased periodically. It secures the right function of the machine.

Lubrication place	Lubrication
	Console of the saw arm – Lubricate with grease once a three months (see chapter Lubricant greases). Use 3–5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3–5 times whole line of the linear guiding during lubrication.
	Linear guiding for feeder movement Lubricate with grease once a three months (see chapter Lubricant greases). Use 3–5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3–5 times whole line of the linear guiding during lubrication.
	

6.5.2. Hydraulic oils

Replace the hydraulic oil once in 2 years, because the oil can deteriorate its properties and cause problems the hydraulic equipment. If the hydraulic system is equipped with filter (2SF 56/48-0,063), replace the filter too.

Use oils with specification DIN 51524-HLP, ISO 6743-4 and viscosity grade ISO VG 32 in hydraulic aggregates. Hydraulic oils quantity – see chapter **Hydraulic oil level check**.

Note:

When replacing, use oils recommended by BOMAR or oils, which has comparable parameters from the other manufacturers. Do not forget, that mineral and synthetic oils may not be mixed!

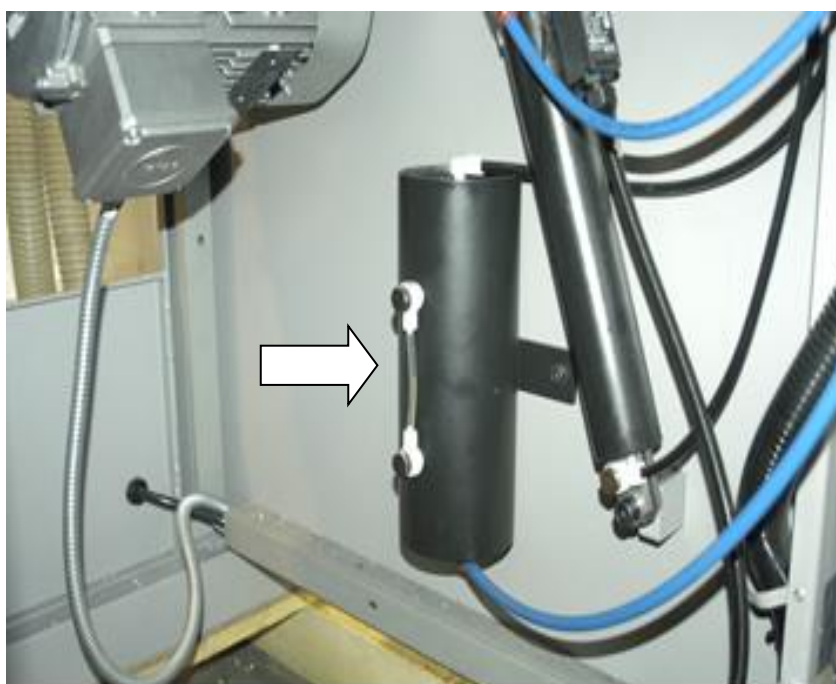
Comparative table of the hydraulic oils

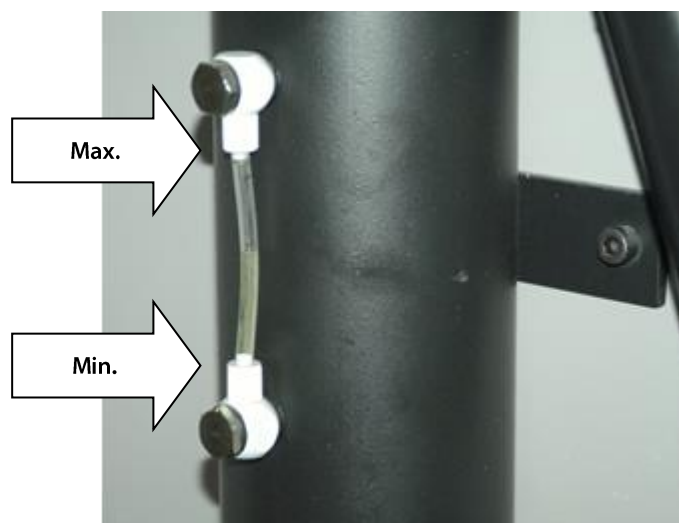
Manufacturer	Type	Manufacturer	Type
Agip	Oso 32	Ina	Hidraol 32 HD
Aral	Vitam GF 32	Klüber	Lamora HLP 32
Avia	Avilub RSL 32	Hungary	Hidrokomol P 32
Benzina	OH-HM 32	Mobil	Mobil DTE 25
BP	Energol HLP 32	ÖMV	HLP 32
Bulgaria	MX-M/32	Poland	Hydrol 30
Castrol	Hyspin AWS 32	Rumania	H 32 EP
Čepro	Mogul HM 32	Russia	IGP 30
DEA	Astron HLP 4hy6	Shell	Tellus Oil 32
Elf	Elfolna 32	Sun	Sunvis 832 WR
Esso	Nuto H 32	Texaco	Rando HD B 32
Fam	HD 5040	Valvoline	Ultramax AW 32
Fina	Hydran 32		

6.5.3. Hydraulic oil level check

Open the door at the pedestal and check the state of the oil.

The oil level must be visible in the translucent oil hose of the oil marker (between marks **min** and **max**.)

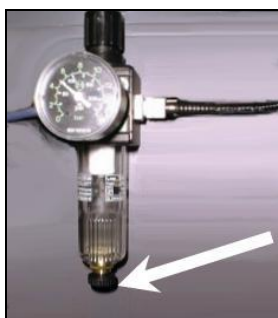




Fill the hydraulic oil, if it is necessary. Use always the filter (10 μm or better) when you fill the oil. You avoid impurities penetration to the hydraulic system and troubles in hydraulic system.

6.6. Pressure system servicing

Filter of the pressure system is necessary to clean periodically, that means drain sediments and impurities from the reservoir.



Screw off the screw and let to drain sediments to the reservoir. Screw on the screw again.

WARNING!

There is a pressure 0,5 – 0,6 MPa in the system, therefore you must release the screw very carefully!

6.7. Machine cleaning

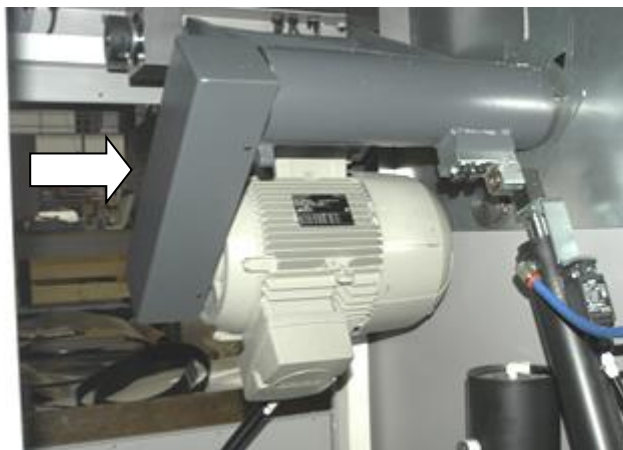
Clean the machine from the cooling liquid and impurities after every shift stopping. Conserve the guiding surfaces, mainly:

- Clamping jaws of the vice.
- The guiding of the jaws' console.
- Loading surface and area in the pedestal.

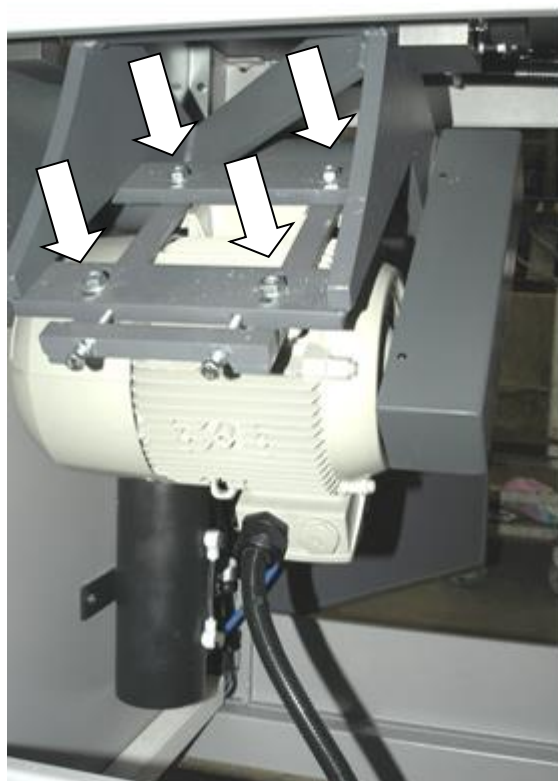
6.8. Worn pieces replacement

6.8.1. Belt replacement

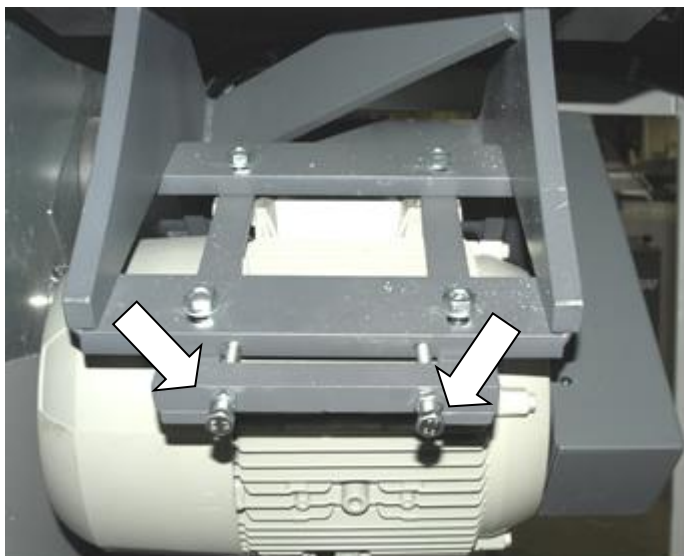
1. Switch off the machine main switch.
2. Open the door on the pedestal. The rear cover can also be removed for better access.
3. Remove the cover of the belt.



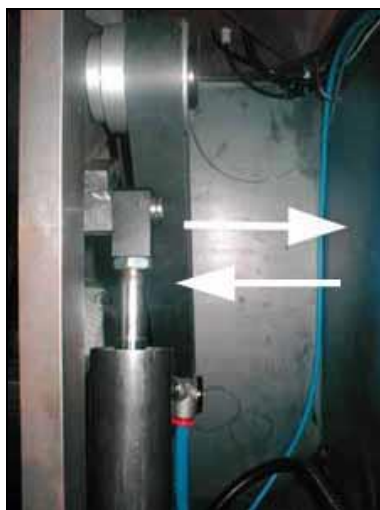
4. Release 4 screws, which hold the electromotor.



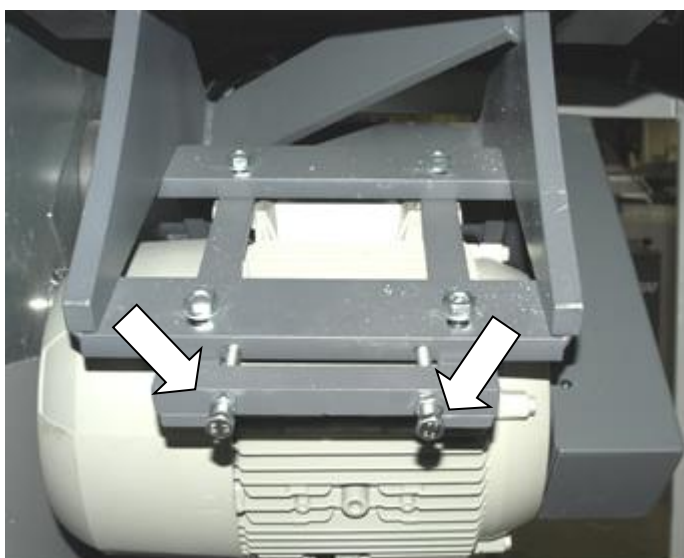
5. Release nuts of the stretching screws and screw off both screws, until the belt is not released.



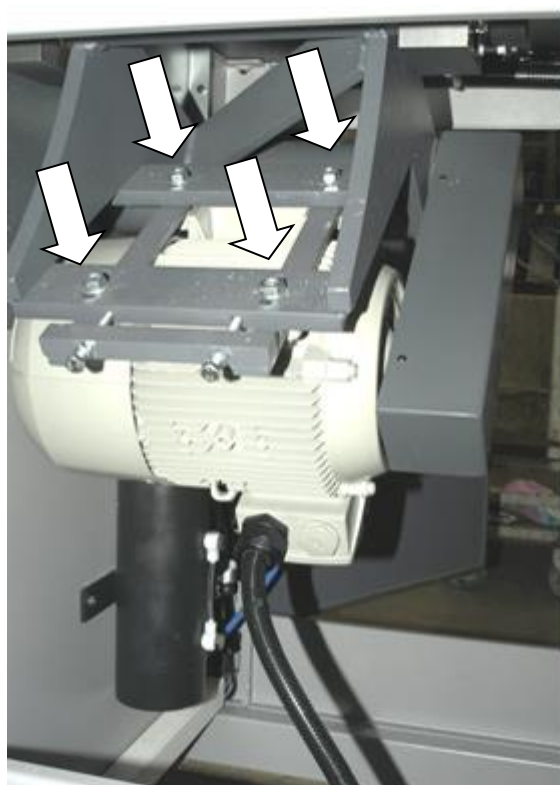
6. Remove worn driving belt and put on the new one.



7. Stretch the driving belt by means of the stretching screws and tighten nuts of the stretching screws again.



8. Tighten 4 screws, which hold the electromotor.



9. Close the door on the pedestal and switch on the main switch. Belt replacement is finished.

7. **Schémata / Schemas / Schematics**

7.1. Elektrické schema / Elektroschema / Wiring diagrams



ALU 500 ANC

ES-104.010-B1/B2-V1.4.1

Wiring diagram

3x400V+PE, 50 Hz

Bomar, spol. s r.o.
Těžební 1236/1
627 00 Brno
Czech republic



 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Úvodní strana / Start page / Startseite	Číslo dok./Doc.No./Anzahl der Dokumente.: ES-104.010-B1/B2-V1.4.1 Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz Zpracováno/Processed /Hat verarbeitet: 21.12.2020 Datum/Date/Datum:	Titul/Page/ Seite: 1 Titul/Page/ Seite: 28
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Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device Identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-A1.1.A	PLC Řídicí jednotka PLC Control unit SPS Steuereinheit	DELAS228P-A	DELTA ELECTRONICS, INC.	91.995.929	1	/12.0
-A1.5.1	Modul digitálních vstupů 8x Digital input module 8x Digitales Eingangsmodul 8x	DELAS08A10N-A	DELTA ELECTRONICS, INC.	91.995.931	1	/17.0
-A1.7.1	Modul releových výstupů 8x Relay output module 8x Relais Ausgangsmodul 8x	DELAS08A01R-A	DELTA ELECTRONICS, INC.	91.995.930	1	/18.0
-BM1.1	Bezpečnostní relé Sentry USR22 Safety relay Sentry USR22 Sicherheitsrelais Sentry USR22	ABB.2TLA010070R0400	ABB	91.051.074	1	/9.5
-D305	Dioda 800V 3A Diode 800V 3A Diode 800V 3A	BY399 DO201	GM-electronics	91.280.009	1	/18.5
-D306	Dioda 800V 3A Diode 800V 3A Diode 800V 3A	BY399 DO201	GM-electronics	91.280.009	1	/16.2
-ENC1.1	Lineární inkrementální snímač - 10-30VDC/10-30VDC Linear Encoder - 10-30VDC / 10-30VDC Linearencoder - 10-30VDC / 10-30VDC	LMX2-026-08.0-1-00	ELGO	91.270.011	1	/13.2
-ENC1.2	Inkrementální rotační senzor s dutou hřídelí Incremental encoder with hollow shaft Inkrementaler Drehgeber mit Hohlwelle	IFM.RA3101	IFM electronic	91.103.124	1	/13.3
-FA1.1	Motorový spouštěč - 10A Motor starter - 10A Motorstarter - 10A	MS116-10,0	ABB	91.045.024	1	/6.5
-FA1.1	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/6.5
-FM1.2	Frekvenční měnič - 0.4kW, 3x400VAC Frequency converter - 0.4kWkW, 3x400VAC Frequenzumrichter - 0.4kWkW, 3x400VAC	VFD1A5ME43AFSAA	DELTA ELECTRONICS, INC.	91.012.217	1	/7.2
-FU1.1	Pojistka trubičková - 6,3A/250V, pomalá, 5x20 Tube fuse - 6,3A/250V, slow, 5x20 Rohrsicherung - T6,3A / 250V, langsam, 5x20	T6,3A/250V	ESKA	91.230.002	1	/8.1

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Kusovník artiklů Parts list Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-104.010-B1/B2-V1.4.1		Úč./Page/ Seite: 3
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-FU1.1	Svorka pojistková Fuse terminal Sicherungsklemme	SKJ - 2.5D	SMS Technology	91.251.102	1	/8.1
-FU1.2	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/8.4
-FU1.2	Svorka pojistková Fuse terminal Sicherungsklemme	SKJ - 2.5D	SMS Technology	91.251.102	1	/8.4
-FU1.3	Pojistka trubičková - 4A/250V, pomalá, 5x20 Tube fuse - 4A/250V, slow, 5x20 Rohrsicherung - 4A / 250V, langsam, 5x20	T4A/250V	ESKA	91.230.015	1	/8.4
-FU1.3	Svorka pojistková Fuse terminal Sicherungsklemme	SKJ - 2.5D	SMS Technology	91.251.102	1	/8.4
-FU1.4	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/8.4
-FU1.4	Svorka pojistková Fuse terminal Sicherungsklemme	SKJ - 2.5D	SMS Technology	91.251.102	1	/8.4
-FU1.5	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/8.4
-FU1.5	Svorka pojistková Fuse terminal Sicherungsklemme	SKJ - 2.5D	SMS Technology	91.251.102	1	/8.4
-FU1.6	Pojistka trubičková - 500mA/250V, pomalá, 5x20 Tube fuse - 500mA/250V, slow, 5x20 Rohrsicherung - 500 mA / 250 V, langsam, 5x20	T500mA/250V	ESKA	91.230.011	1	/19.1
-FU1.6	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THS15U	WIELAND	91.251.102	1	/19.1
-H1.501	Signálka LED bílá na adaptér White LED light for adapter Weißes LED-Licht für Adapter	M22-LED-W	EATON	91.061.034	1	/9.6

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Třezební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Kusovník artiklů Parts list Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente.: ES-104.010-B1/B2-V1.4.1		Účt./Page/ Seite: 3.a
			Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz		Účt./Page/ Seite: 3.a
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-HMI1.1	HMI ovládací panel 7'' HMI control panel 7'' Bedienfeld 7''	DEL DOP-107EG	DELTA ELECTRONICS, INC.	91.995.932	1	/11.0
-HMI1.1	Ethernet kabel 1m Ethernet cable 1m Ethernetkabel 1m	KEL-C6-S-010 KELine	Cables with connector	91.142.129	1	/11.0
-KM1.1	Stýkač - 4kW/400V, 3P Contactor - 4kW/400V, 3P Schütz - 4 kW / 400V, 3P	AF09-30-01-11	ABB	91.040.047	1	/18.2
-KM1.11	Stýkač 5,5kW/400V Contactor 5,5kW/400V Schütz 5,5kW/400V	AF12-30-01-11	ABB	91.040.051	1	/9.7
-KM1.11	Pomocný kontakt - 1xNO Auxiliary contact - 1xNO Hilfskontakt - 1xNO	CA4-10	ABB	91.041.044	3	/9.7
-KM1.12	Stýkač 5,5kW/400V Contactor 5,5kW/400V Schütz 5,5kW/400V	AF12-30-01-11	ABB	91.040.051	1	/9.7
-KM1.12	Pomocný kontakt - 1xNO Auxiliary contact - 1xNO Hilfskontakt - 1xNO	CA4-10	ABB	91.041.044	3	/9.7
-LP10.1	LED osvětlení LED lighting LED-Beleuchtung	SL-136.003.10.1-700-0,3	KAMAT spol. s r.o.	91.063.055	1	/19.1
-LP10.1	LED osvětlení - montážní spona LED lighting - mounting clip LED-Beleuchtung - Befestigungsclip	ML-113.011.10.0	KAMAT spol. s r.o.	91.063.057	2	/19.1
-LQ2.1A	Jednocostrná světelná závara - vysílač; M12-konektor; 0,3 m Through-beam sensor transmitter; M12-male; 0,3 m Einweglichtschranke Sender; M12-male; 0,3 m	IFM.O6S701	IFM electronic	91.401.031	1	/13.5
-LQ2.1B	Jednocostrná světelná závara - přijímač; M12-konektor; 0,3 m Through-beam sensor receiver; M12-male; 0,3 m Einweglichtschranke Empfänger; M12-male; 0,3 m	IFM.O6E701	IFM electronic	91.401.030	1	/13.6
-PA1.2	Pojistka válcová - 6A, 10x38, rychlá Tube fuse - 6A, 10x38, fast Rohrsicherung - 6A, 10x38, schnell	PV10 6A gG	OEZ	91.231.002	3	/7.2

BOMAR, s.r.o.

Těšební 1236/1

CZ 627 00, Brno

Stroj/Machine/Maschine:

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Kusovník artiklů Parts list Artikelstückliste

Číslo dok./Doc.No./Anzahl der Dokumente.:

ES-104.010-B1/02-V1.4.1

Napájení/Power supply/Einspeisung:

3~400V+PE, 50 Hz

Zpracování/Processed /Hat verarbeitet:

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3.a

The manufacturer reserves right to use an equivalent replacement device.

Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-PA1.2	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylinder einsätze - 3P	E93/32	ABB	91.241.014	1	/7.2
-QS1.1	3 pólový odpináč, 16A Disconnecter - 3P, 16A Trennschalter - 3P, 16A	OT16FT3	ABB	91.170.018	1	/6.1
-QS1.1	Rukojeť odpináče - černá Handle switch - black Griffschalter - schwarz	OHBS2RJ	ABB	91.180.015	1	/6.1
-QS1.1	Kryt svorek Terminal shroud Klemmenabdeckung	OTS40T3	ABB	91.170.017	1	/6.1
-RE1.11	Relé s nuceně vedenými kontakty Relays with forced contacts Relais mit erzwungenen Kontakten	FIN.50.12.9.024.1000	FINDER	91.051.075	1	/9.8
-RE1.11	Patice pro relé Relay socket Relaissockel	CR-PSS	ABB	91.051.048	1	/9.8
-RE1.12	Relé s nuceně vedenými kontakty Relays with forced contacts Relais mit erzwungenen Kontakten	FIN.50.12.9.024.1000	FINDER	91.051.075	1	/9.9
-RE1.12	Patice pro relé Relay socket Relaissockel	CR-PSS	ABB	91.051.048	1	/9.9
-RT10.7	Modem-router eWON COSY 131, WAN Modem-router eWON COSY 131, WAN Modem-router eWON COSY 131, WAN	EC61330	eWON	91.990.034	1	/19.3
-SA10.1	Hlavice tlačítka - černá Head button - black Kopffaste - schwarz	M22-D-S	EATON	91.060.035	1	/19.1
-SA10.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/19.1
-SB1.500	Total stop - hlavice + 2xNC Emergency-stop - button + 2xNC Not-Aus-Pilz - Taster + 2xNC	YW1B-V4E02R	IDEC	91.060.084	1	/9.4

The manufacturer reserves right to use an equivalent replacement device.

3.b

 BOMAR, s.r.o. Tržební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Kusovník artiklů Parts list Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente.: Napájení/Power supply/Einspeisung: Zpracováno/Processed /Fkt. verarbeitet: Datum/Date/Datum:	ES-104.010-B1/02-V1.4.1 3x400V+PE, 50 Hz 25.05.2022	Účt./Page/ Seite: 3.c Účt./Page/ Seite: 28
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Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SB1.500	Kontakt - 1x NO Contact - 1x NO Kontakt - 1x NO	YW-E10	IDEC	91.061.044	1	/9.4
-SB1.501	Hlavice prosvětleného tlačítka modrá Blue transparent switch Blau transparent Schalter	M22-DL-B	EATON	91.060.132	1	/9.6
-SB1.501	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/9.6
-SQ1.1	Koncový spínač - 1NC+1NO, M20 Limit switch - 1NC+1NO, M20 Endschalter - 1NC+1NO, M20	D4N-4A62	OMRON	91.173.008	1	/17.2
-SQ1.2	Induktivní senzor - 2mm, NO, 24V DC, 200mA, M8 Inductive sensor - 2mm NO, 24VDC, 200 mA, M8 Induktive Sensor - 2mm NO, 24VDC, 200 mA, M8	IME08-02BPSVT0SS12	SICK	91.172.069	1	/17.2
-SQ1.3	Induktivní senzor - 2mm, NO, 24V DC, 200mA, M8 Inductive sensor - 2mm NO, 24VDC, 200 mA, M8 Induktive Sensor - 2mm NO, 24VDC, 200 mA, M8	IME08-02BPSVT0SS12	SICK	91.172.069	1	/17.3
-SQ1.4	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/17.4
-SQ1.5	Bezpečnostní koncový spínač s cívkou 24V Safety Limit Switch with 24V coil Sicherheitsendschalter mit 24V Spule	PZ-FS3096D024-F1	PIZZATO	91.173.064	1	/9.1
-SQ1.5	Vidlice bezpečnostního spínače Forks for safety switch Gabeln für Sicherheitsschalter	PZ-VKEYF2	PIZZATO	91.173.107	1	/9.1
-SQ1.6	Bezpečnostní koncový spínač s cívkou 24V Safety Limit Switch with 24V coil Sicherheitsendschalter mit 24V Spule	D4NL-4HFA-B	OMRON	91.173.040	1	/9.1
-SQ1.7	Koncový spínač - 1NC+1NO, M20 Limit switch - 1NC+1NO, M20 Endschalter - 1NC+1NO, M20	D4N-4A62	OMRON	91.173.008	1	/17.7
-SQ1.8	Koncový spínač - 1NC+1NO, M20 Limit switch - 1NC+1NO, M20 Endschalter - 1NC+1NO, M20	D4N-4A62	OMRON	91.173.008	1	/17.7

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Kusovník artiklů Parts list Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-104.010-B1/02-V1.4.1		Úč./Page/ Seite: 3.d
			Napájení/Power supply/Einspeisung: 3~400V+PE, 50 Hz		Úč./Page/ Seite: 28
			Zpracováno/Processed /Hat verarbeitet:		
			Datum/Date/Datum: 25.05.2022		

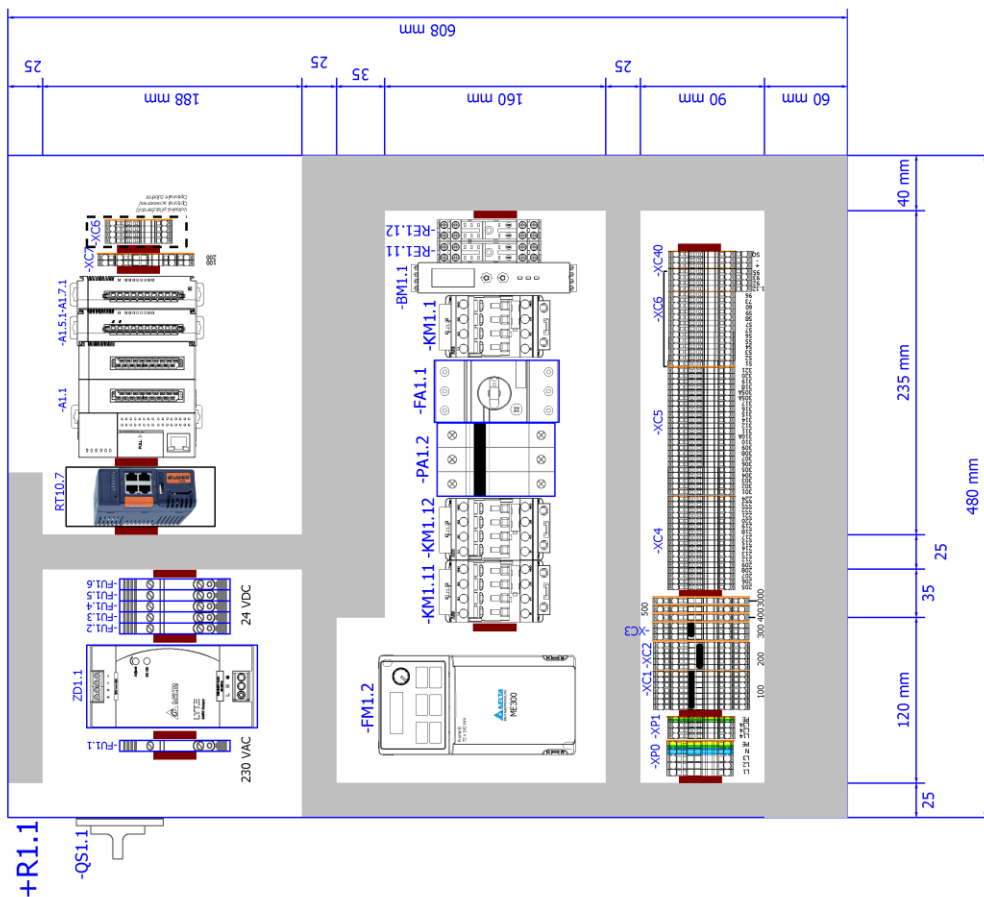
Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SQ1.13	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/9.4
-XUSB1.1	Konektor USB Connector USB Anschluss USB	CLIFF CP30110	CLIFF	91.141.110	1	/11.3
-XUSB1.1	Kryt zásuvky USB USB socket cover Abdeckung der USB-Buchse	CLIFF CP30112	CLIFF	91.141.111	1	/11.3
-XUSB1.1	Kabel USB 2,0 m USB cable 2,0 m USB-Kabel 2,0 m	GOOBAY 50856	GOOBAY	91.142.134	1	/11.3
-ZD1.1	Napájecí zdroj 24VDC 10A Power supply 24VDC 10A Stromversorgung 24VDC 10A	DEL.DRL-24V240W1AA	DELTA ELECTRONICS, INC.	91.085.041	1	/8.2
+OP1.1-HL1.1	Signálka LED zelená na adaptér Green light for Eaton-Adapter Grünes Licht für Eaton-Adapter	M22-LED-G	EATON	91.061.023	1	/16.3
+OP1.1-SB1.1	Hlavice prosvětleného tlačítka zelená Green transparent switch Grün transparent Schalter	M22-DL-G	EATON	91.060.031	1	/14.6
+OP1.1-SB1.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/14.6
+OP1.1-SB1.2	Hlavice tlačítka - černá Head button - black Kopflaste - schwarz	M22-D-S	EATON	91.060.035	1	/14.7
+OP1.1-SB1.2	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/14.7
+R10.1	Krabice elektro Electrical box Sicherungskasten	PHS_8T	Noark	91.190.060	1	/20.0
+R10.1-KM10.1	Ministrykač - 4kW/400V, 3P Mini contactor - 4kW/400V, 3P Mini-Schütz - 4kW/400V, 3P	B65-30-10-1.7-71	ABB	91.040.048	1	/20.1

The manufacturer reserves right to use an equivalent replacement device.

3.d

	BOMAR, s.r.o. Třesební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Kusovník artiklů Parts list Artikelstückliste	Celo dok./Doc.No./Anzahl der Dokumente.: ES-104.010-B1/B2-V1.4.1 Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz Zpracováno/Processed /Hat verarbeitet: 25.05.2022	Lič./Page/ Seite: 3.e Lič./Page/ Seite: 28
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3.f



BOMAR, s.r.o.
Těšební 1236/1
CZ 627 00, Brno

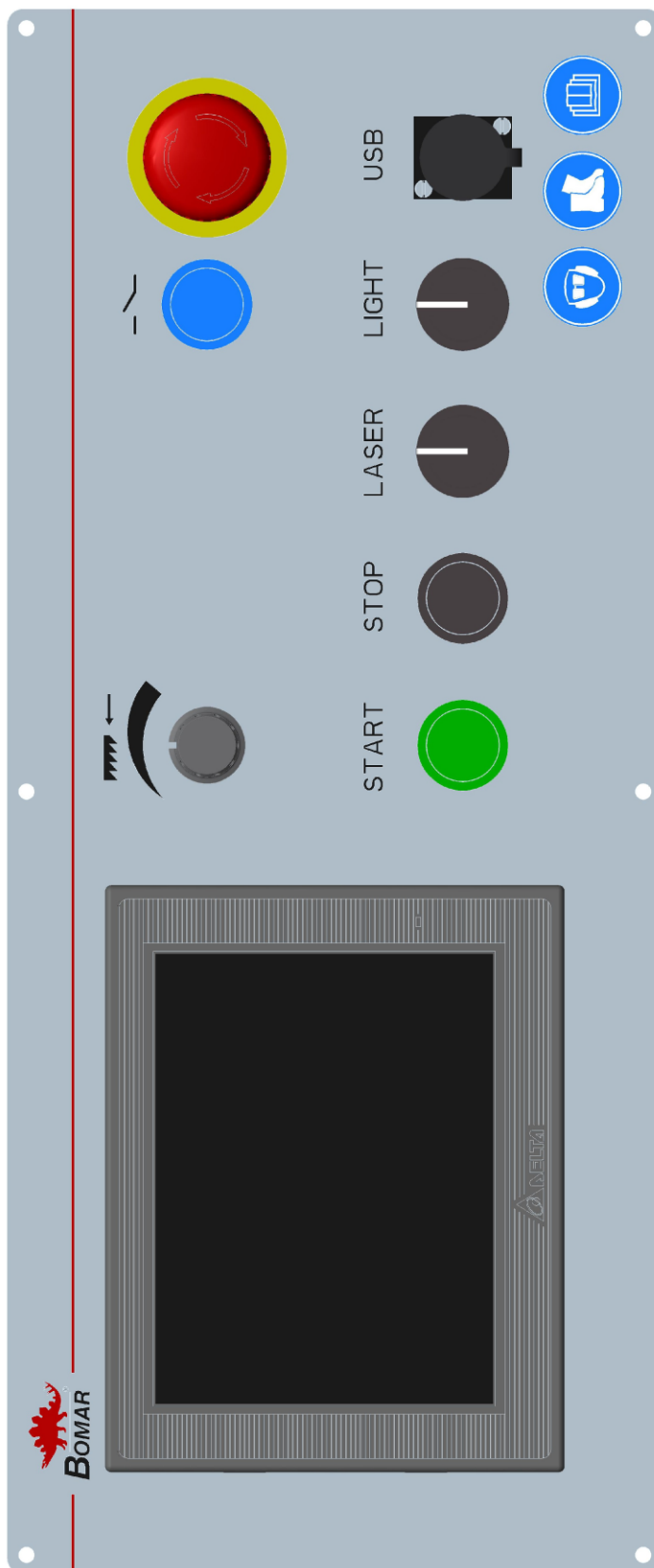
Stroj/Machine/Maschine:
ALU 500 ANC

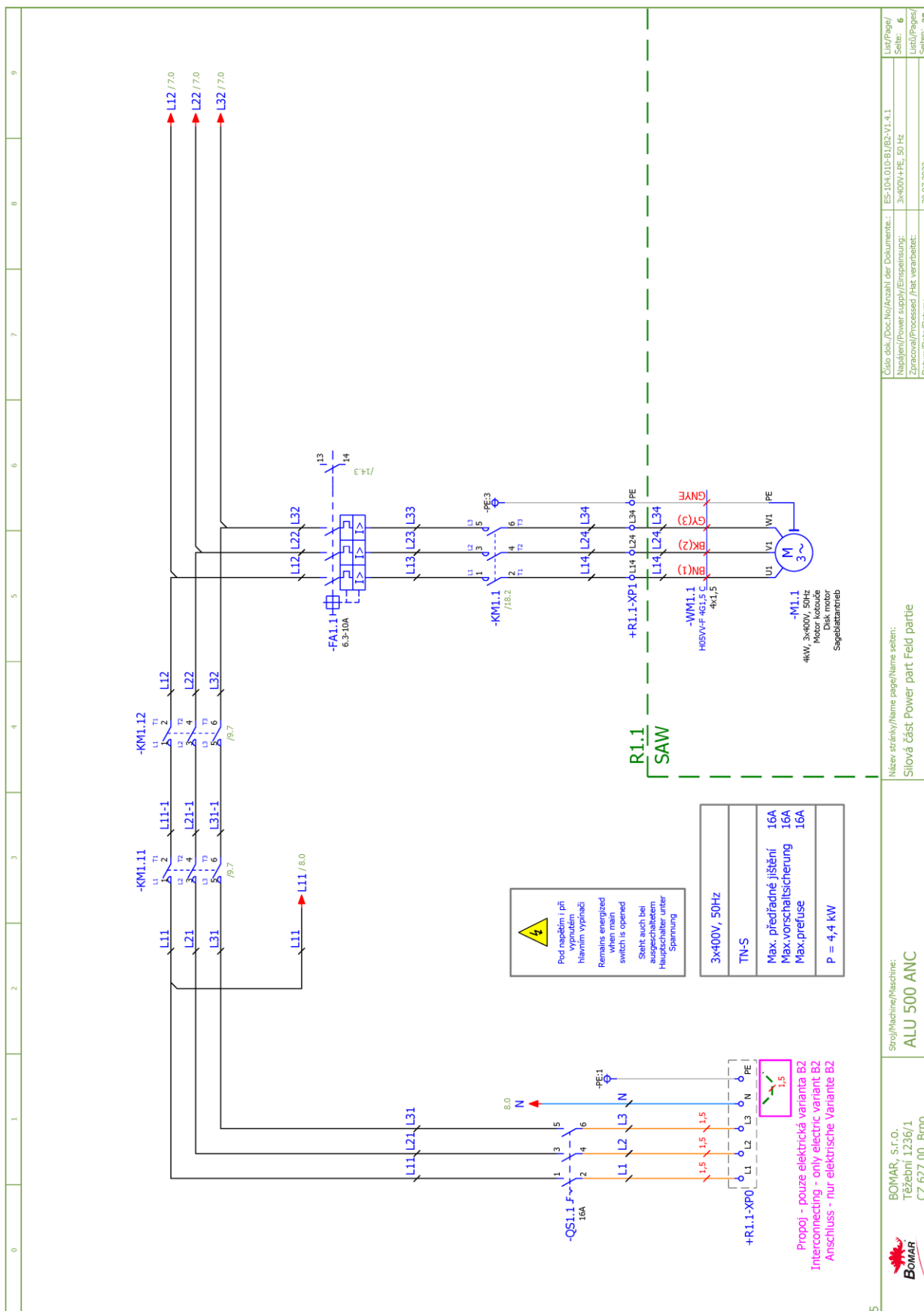
Název stránky/Name page/Name seiten:
Uspřádání rozvaděče R1 Panel layout R1 Schaltstrankaufbau R1

Císlo dok./Doc.No/Anzahl der Dokumente: ES-154.010-B1/B2-V1.4.1
Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz
Zpracování/Processed /Hat verarbeitet: 13.06.2022
Datum/Date/Datum:

Lišt/Pages/
Seite: 4
Lišt/Pages/
Seite: 28

+OP1.1

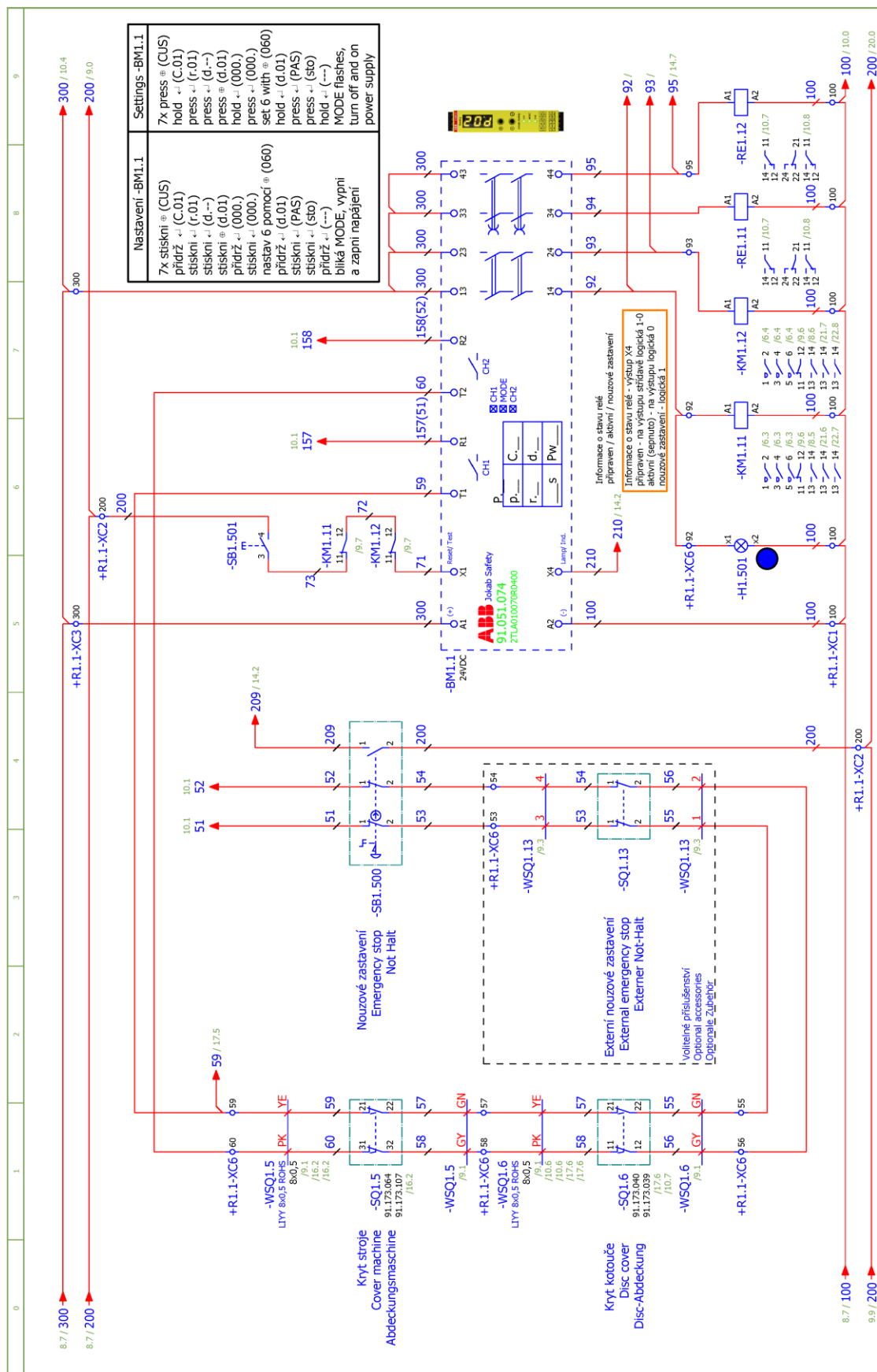




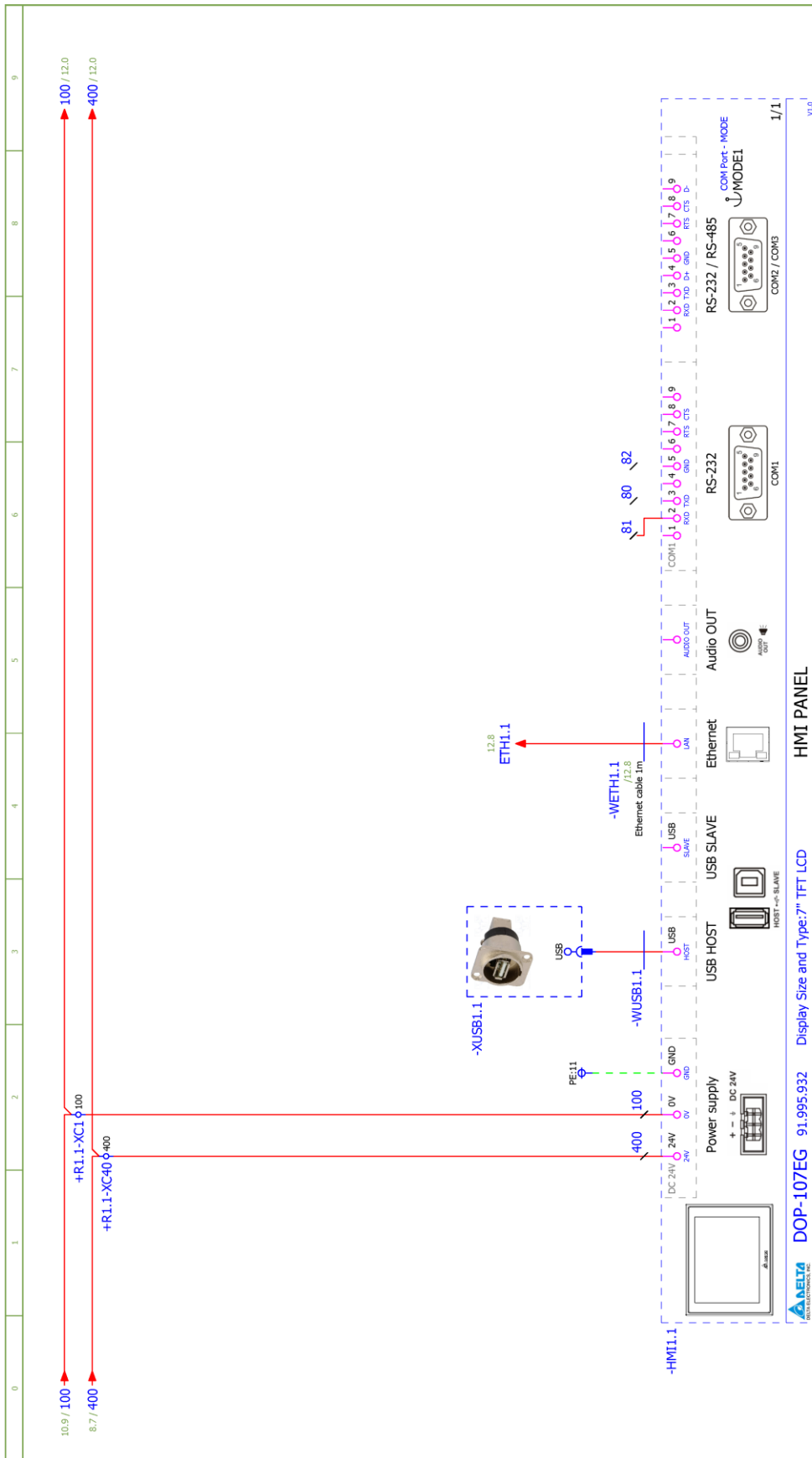
	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Silová část Power part Feld partie	Číslo dok./Doc.No./Anzahl der Dokumente: ES-154.010-B1/B2-V1.4.1	Titul/Page/ 6
				Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz
				Zpracování/Processed /Felt verarbeitet: 20.07.2022
				Titul/Page/ 28



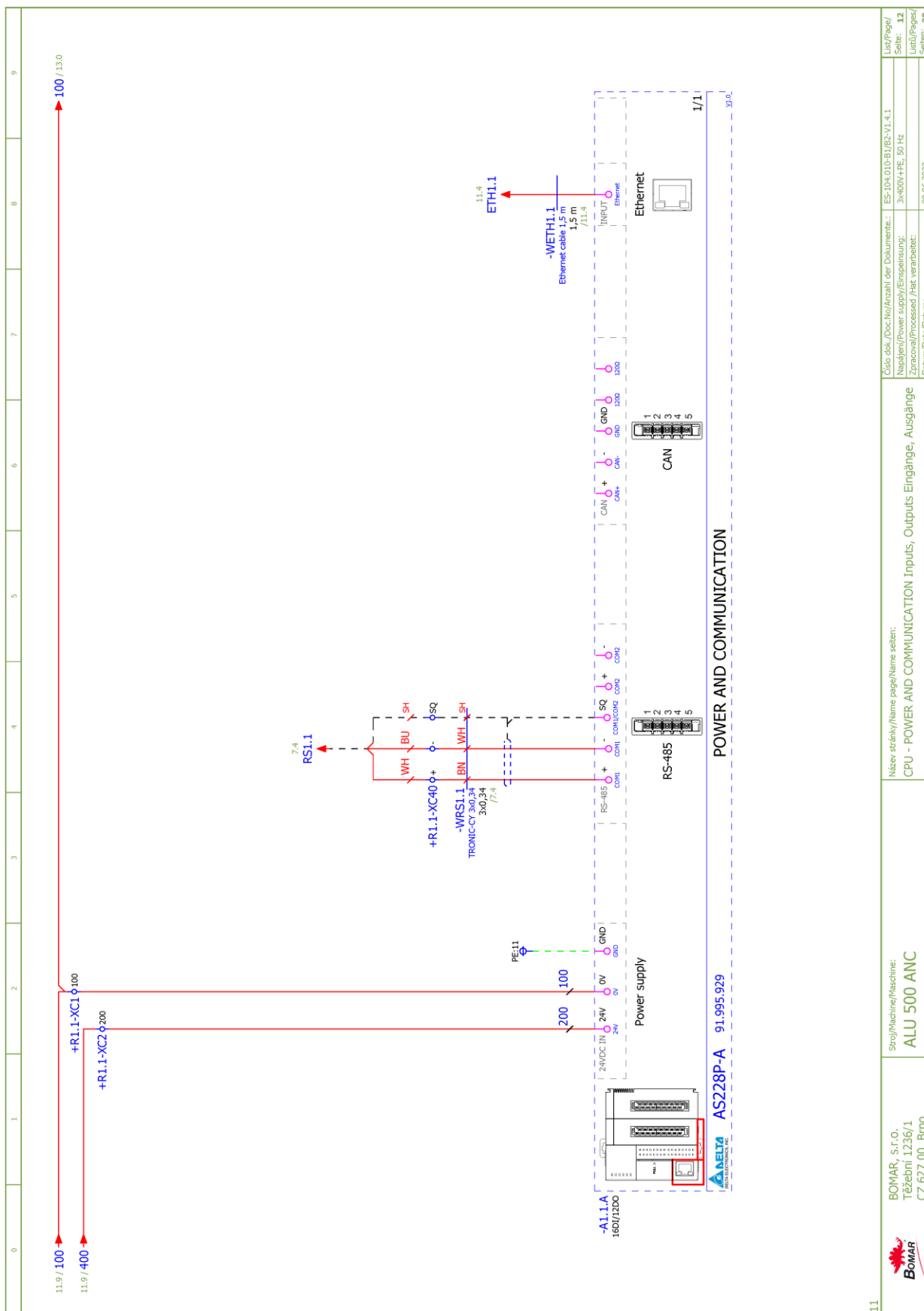


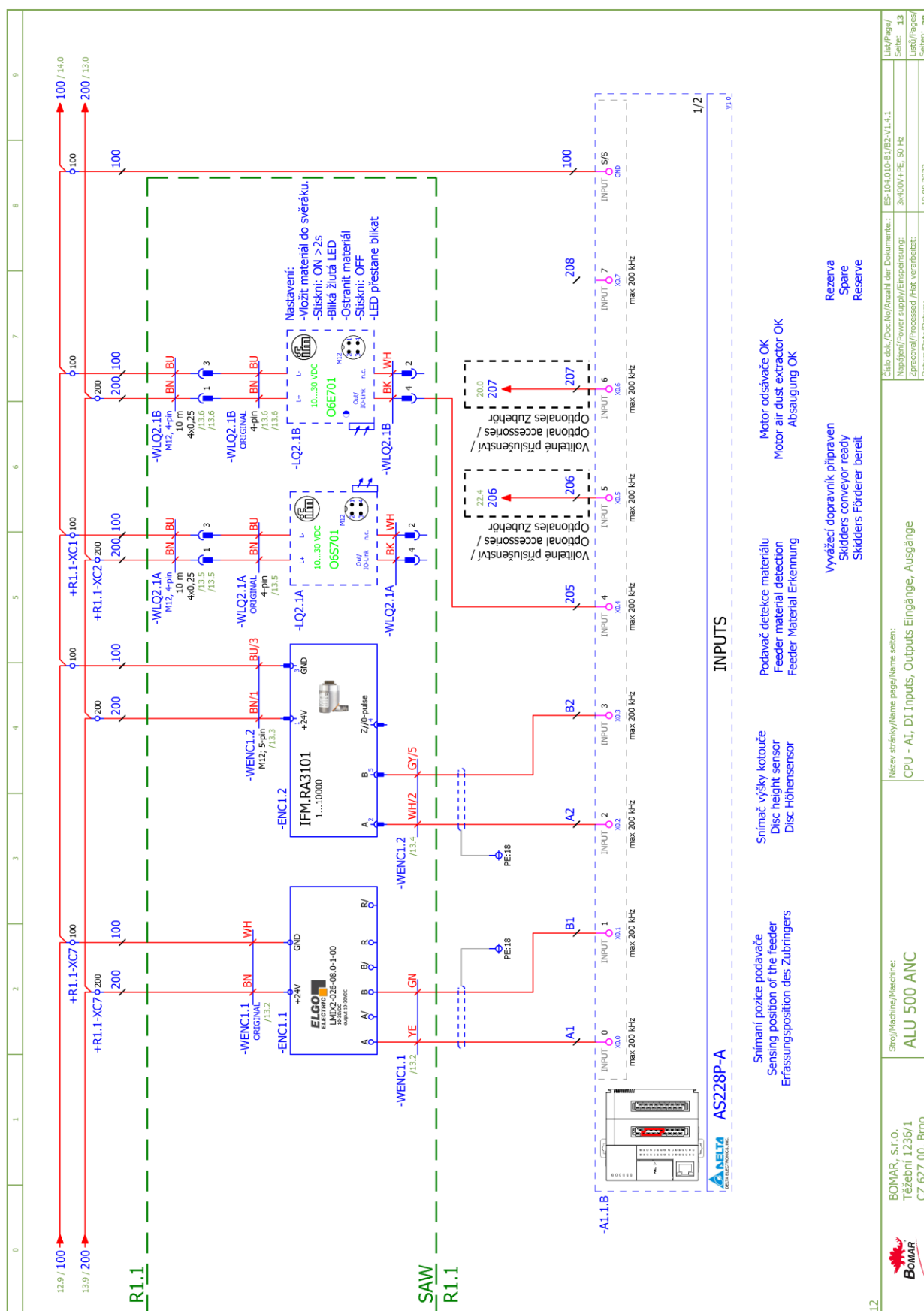




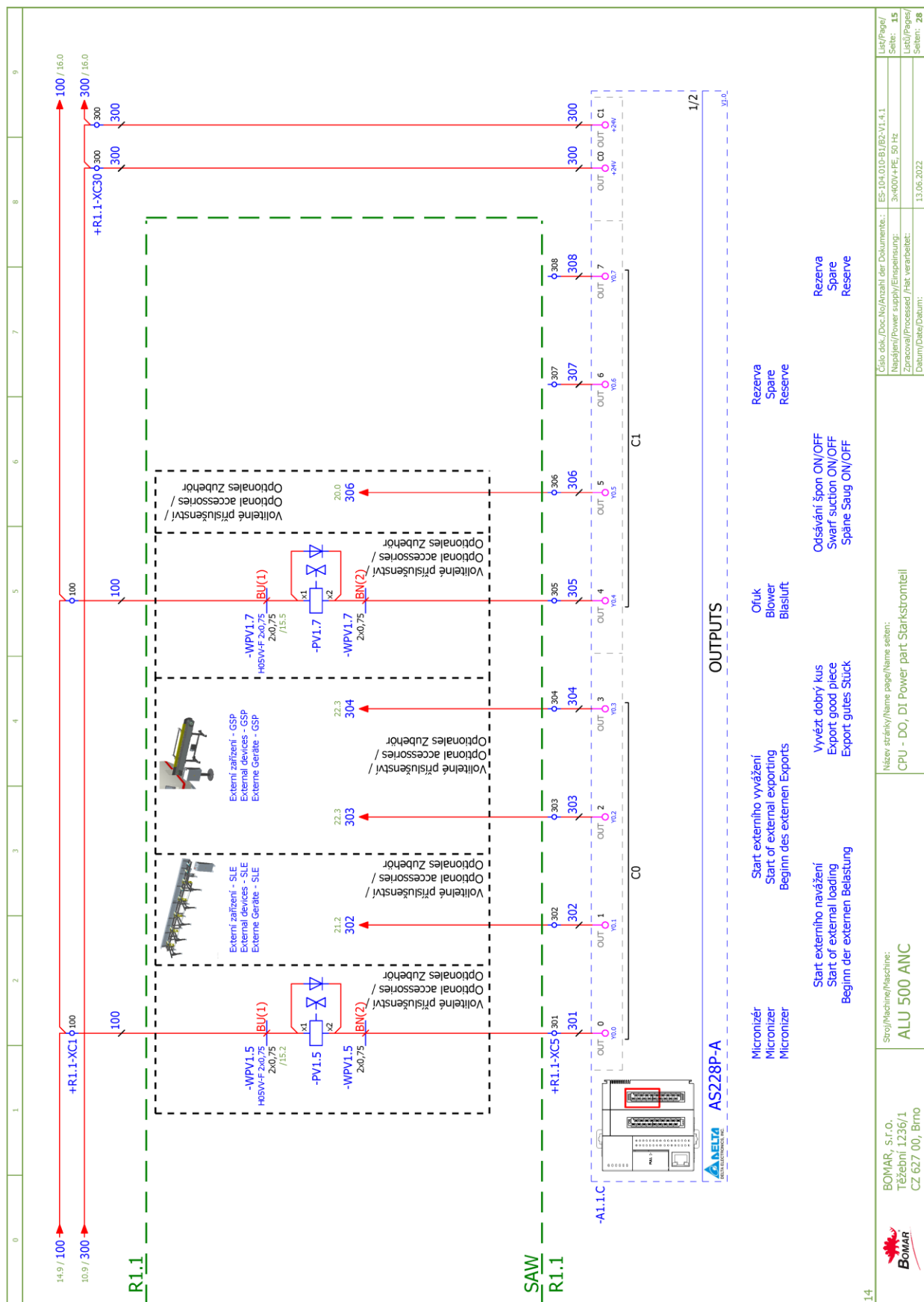


	BOMAR, s.r.o. Třezební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: HMI	Číslo dok./Doc.No./Anzahl der Dokumente.: ES-104-010-B1/02-V1.4.1 Napájení/Power supply/Einspeisung: 3x400V+PE 50 Hz Zpracování/Processed /Hat verarbeitet: 09.06.2022 Datum/Date/Datum:
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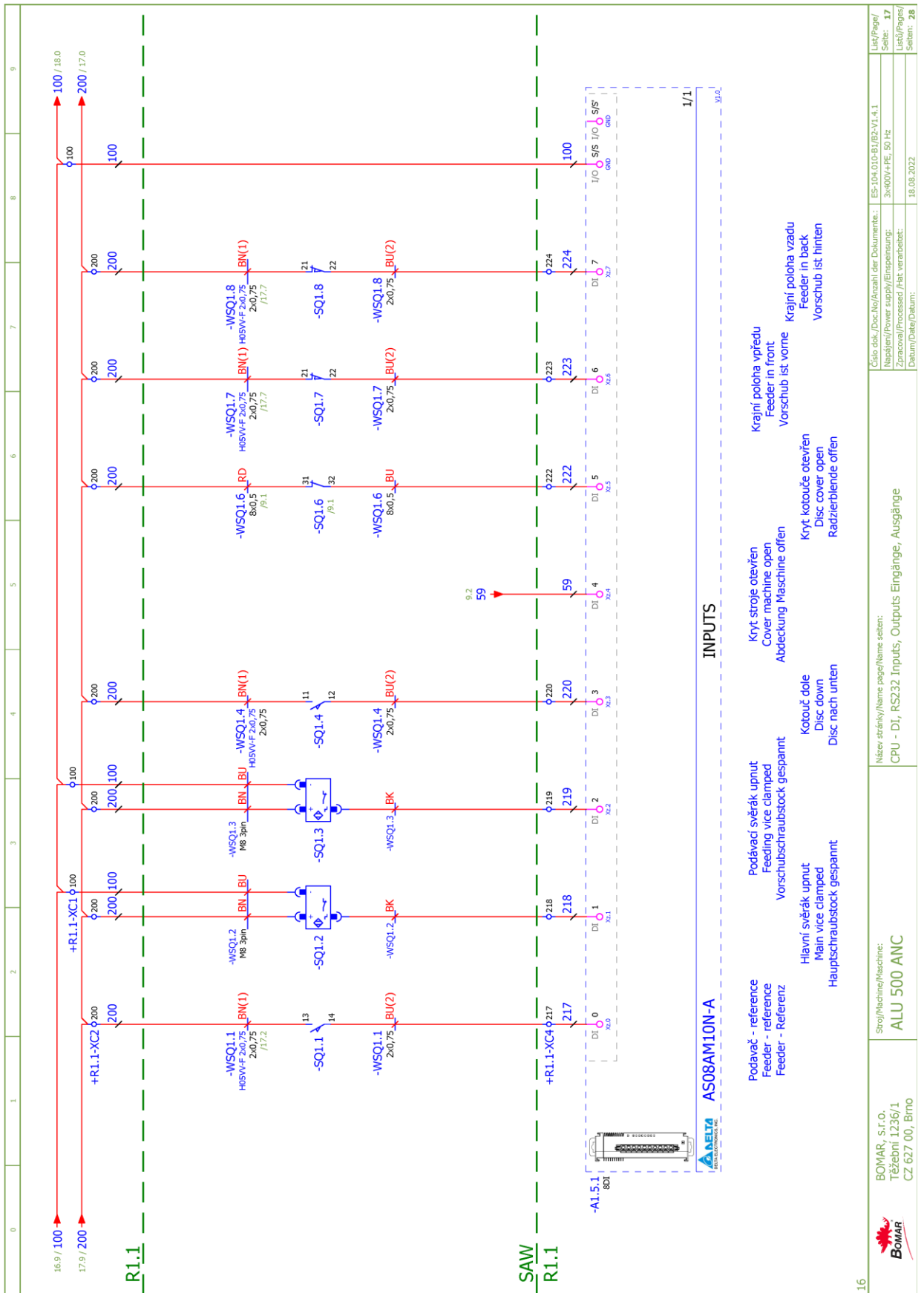


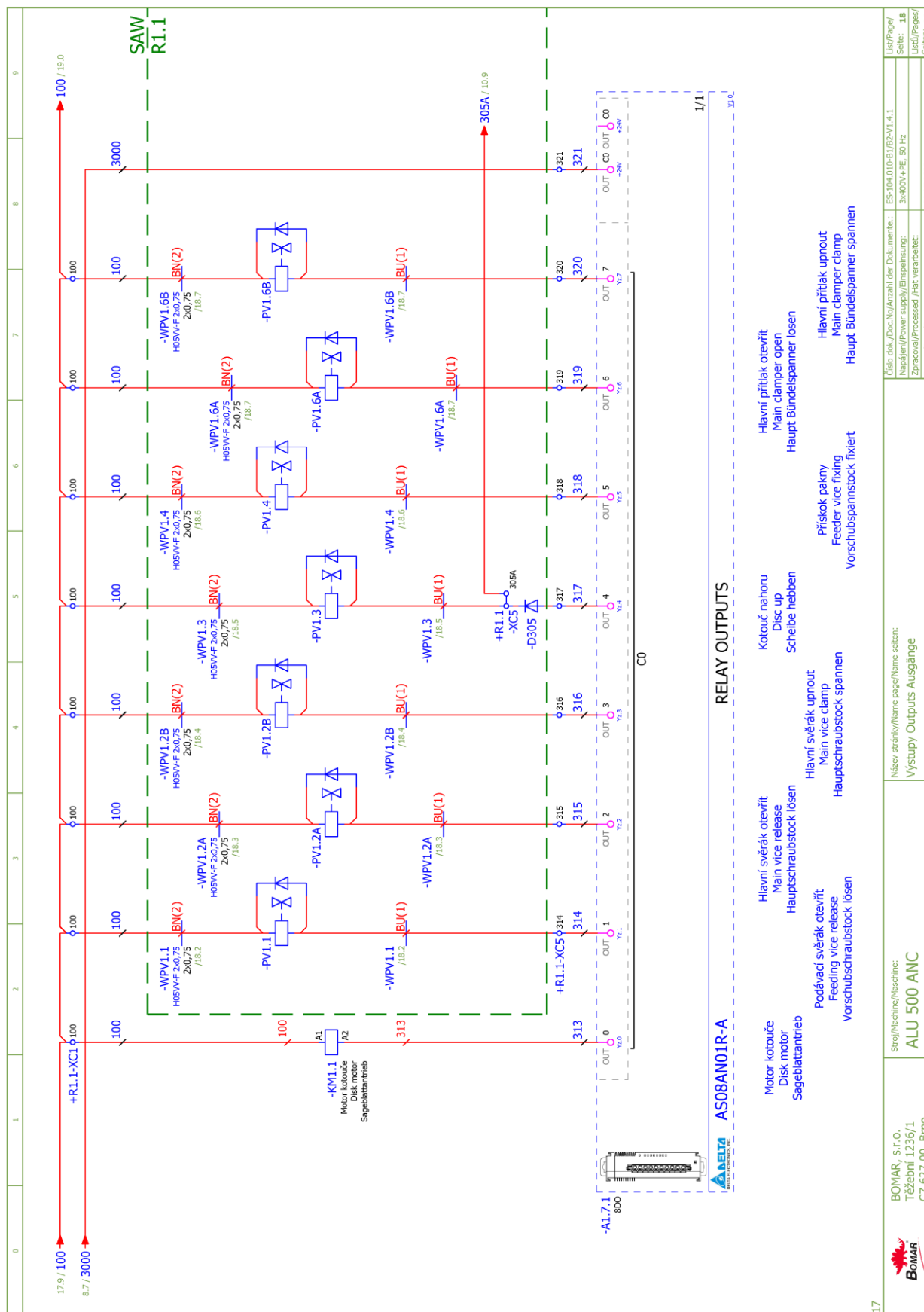




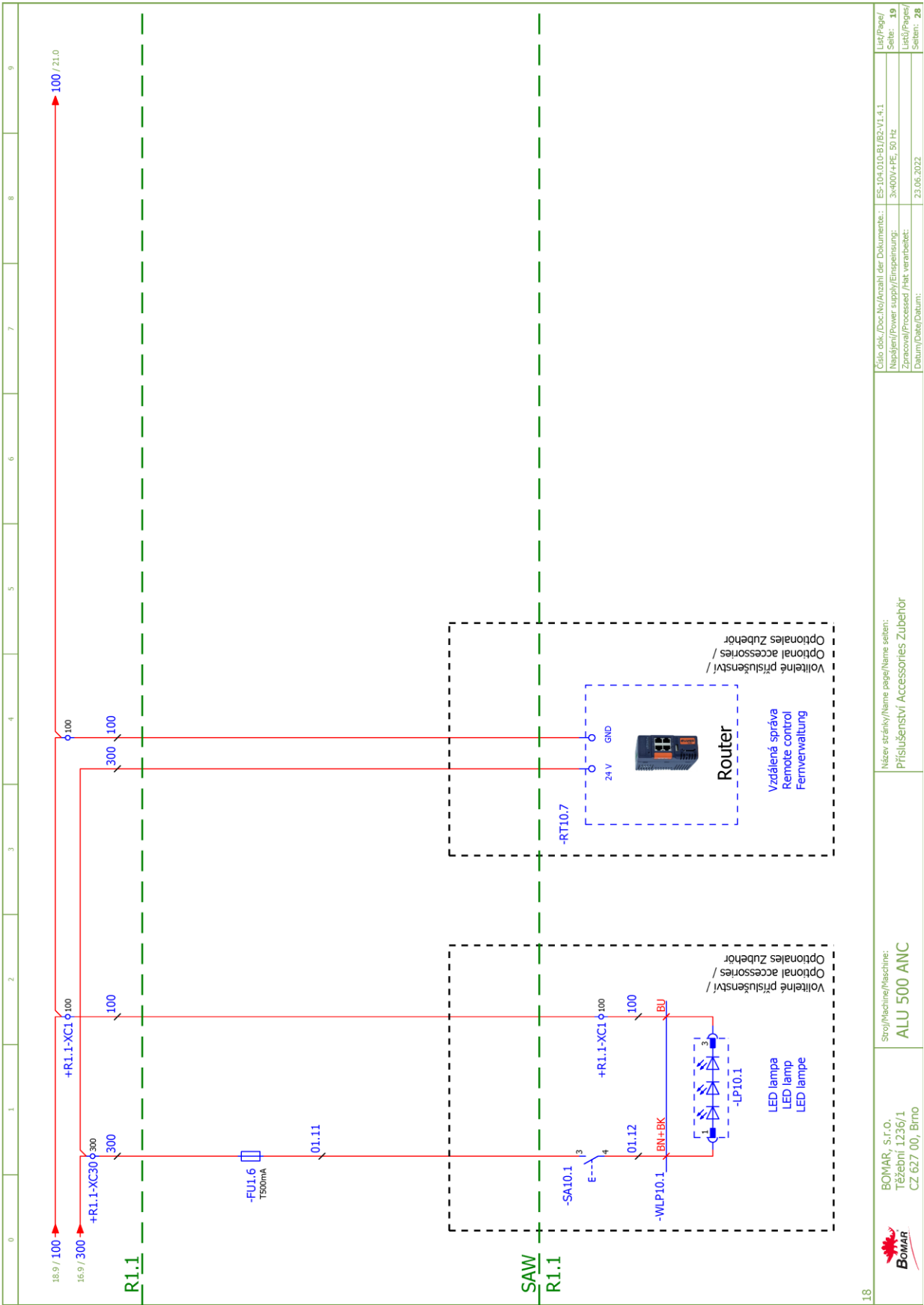


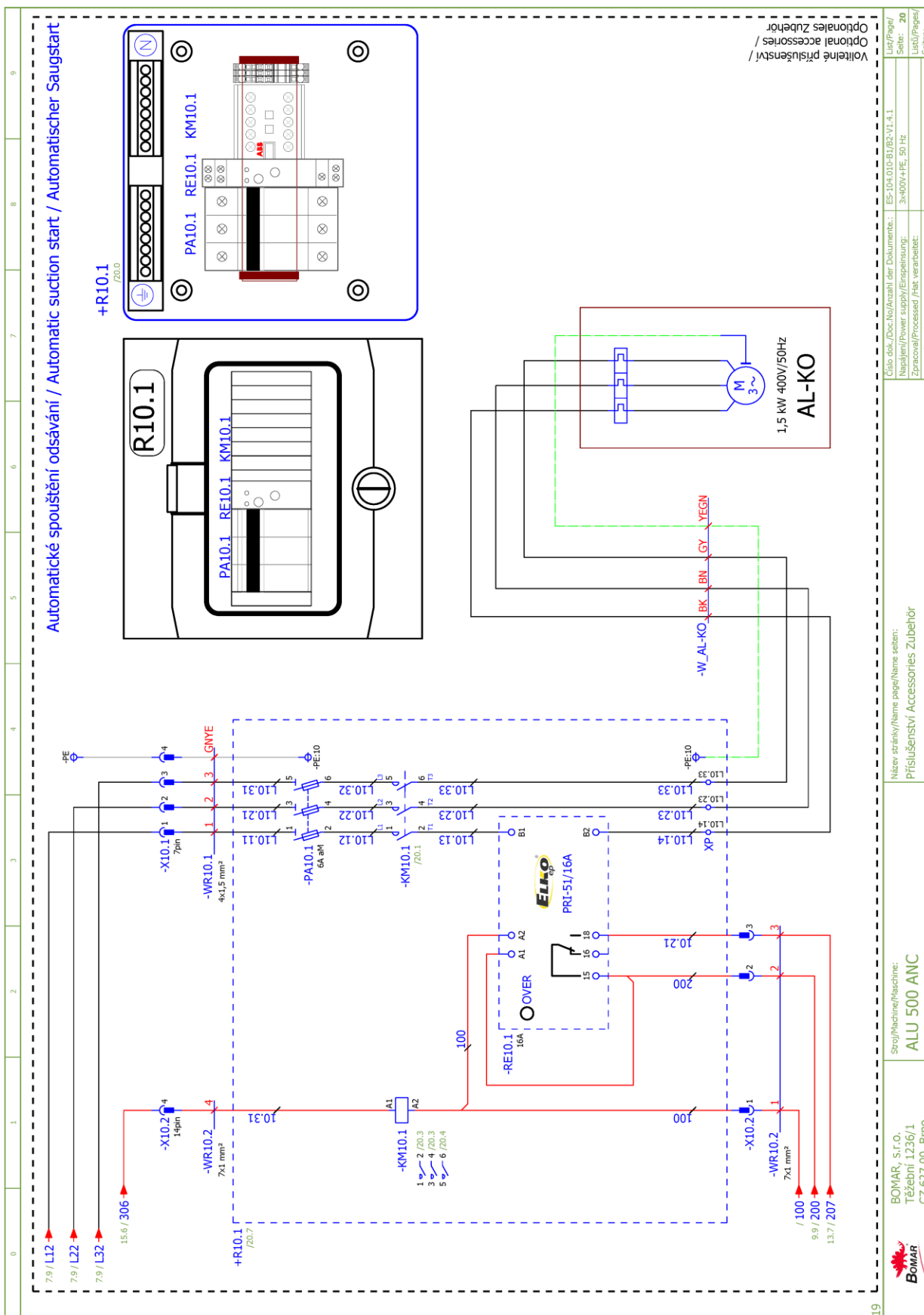




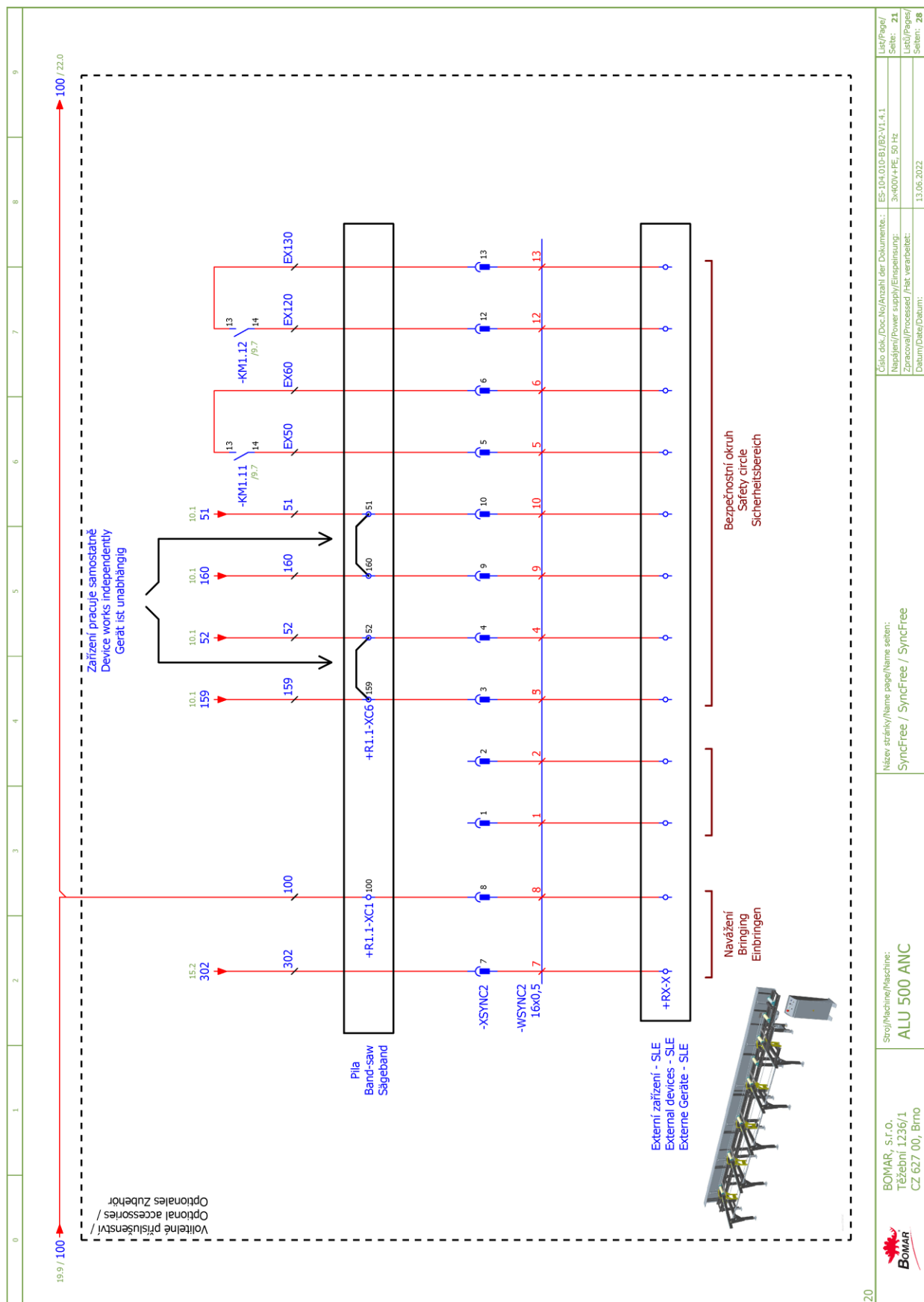


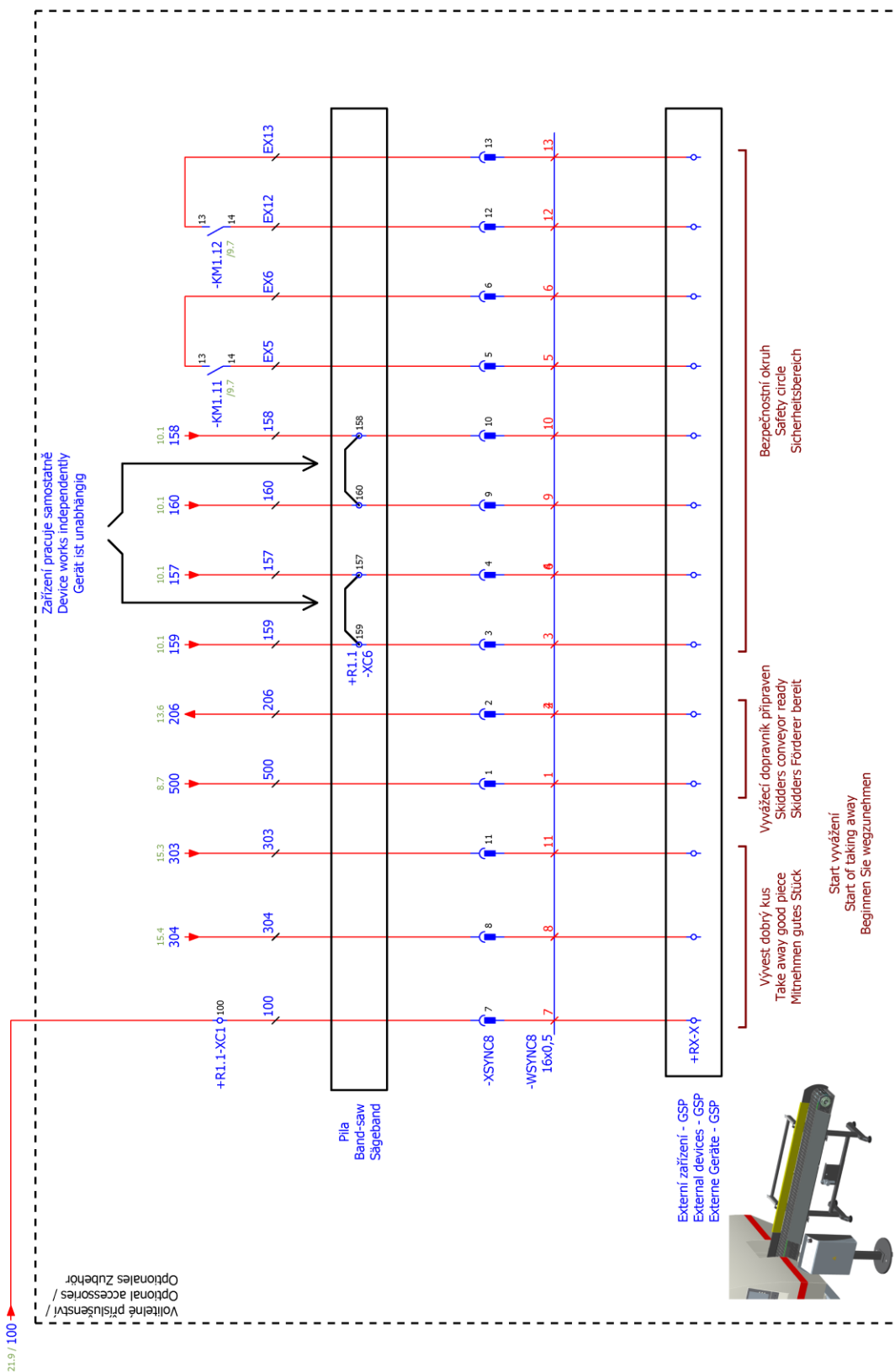
BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: Výstupy Outputs Ausgänge	Číslo dok./Doc.No./Anzahl der Dokumente: ES-104-010-B1/02-V1.4.1	Nařízení/Power supply/Einspeisung: 3x400V+PE, 50 Hz	Zpracování/Processed /Fert. verarbeitet: 20.07.2022
18	18	18	18	18	18





ES-104.010-B1/B2-V1.4.1	3~400V+PE 50 Hz	13.06.2022
3~400V+PE 50 Hz	13.06.2022	28
28	28	28
28	28	28
28	28	28
28	28	28

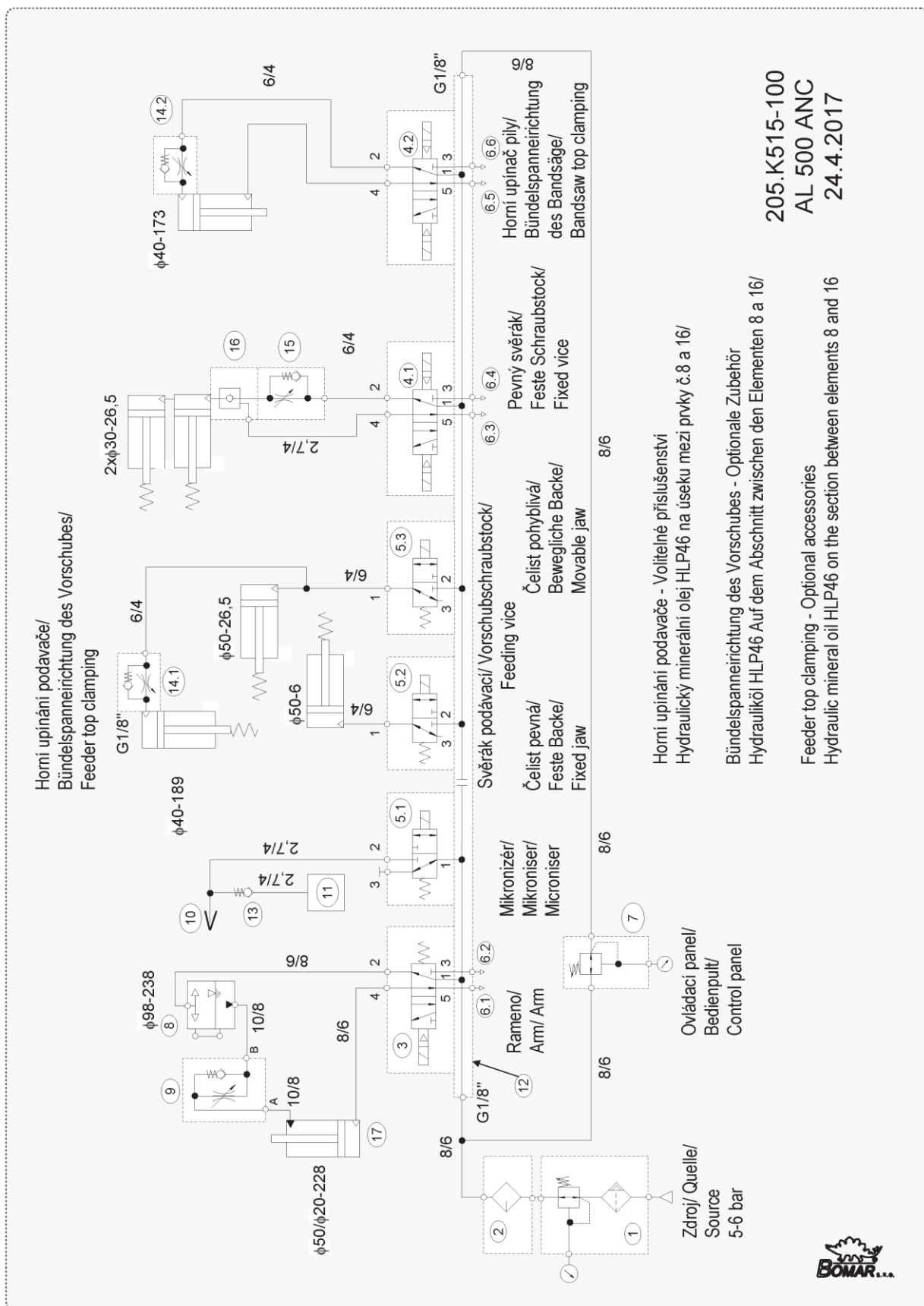




21

	Stroj/Machine/Maschine: ALU 500 ANC	Název stránky/Name page/Name seiten: SyncFree / SyncFree / SyncFree	Číslo dok./Doc.No./Anzahl der Dokumente.: ES-104.010-B1/B2-V1.4.1		Účt./Page/ Seite: 22
			Napájení/Power supply/Einspeisung: 3x400V+PE, 50 Hz		Účt./Page/ Seite: 22
			Zpracování/Processed /Fert. verarbeitet:		Účt./Page/ Seite: 28
			Datum/Date/Datum: 13.06.2022		Účt./Page/ Seite: 28

7.2. Pneumaticko-hydraulické schéma / Pneumatik-Hydraulikschema / Pneumatic-Hydraulic diagram



Poz.	Název položky		ks
Pos.	Bezeichnung		Menge
Pos.	Item		Pcs.
1	Redukční ventil / Reduktionsventil / Control valve	93.003.001 FILTR+MANOMETR	1
2	Olejovač	93.016.001	1
3	Rozvaděč / Verteilungsventil / Distributor	93.002.044	1
4	Rozvaděč / Verteilungsventil / Distributor	93.002.012	2
5	Rozvaděč / Verteilungsventil / Distributor	93.001.008	3
6	Tlumič / Dämpfer / Inhibitor	93.014.003 G1/8"	6
7	Redukční ventil / Reduktionsventil / Control valv	93.002.004	1
8	Výměník / AUSTAUSCHER / exchanger	201.K107-300 V=1,785dm ³	1
9	Škrťací ventil / Drosselventil / Throttle-valve	92.152.013 (ALU 400,500) VS01-04/R3,5-O6S	1
10	MIKRONIZER	99.150.002	1
11	Nádrž / Behälter / Tank	94.404.001 0,5dm ³	1
12	Rozváděcí kostka / Verteilungsklotz / Distribution cube	30.K516-502 HLINÍKOVÁ	1
13	Jednosměrný ventil / Einwegventil / One-way valve	93.024.001	1
14	Škrťací ventil / Drosselventil / Throttle-valve	93.021.027 ŠKRCENÍ VSTUPU	1(2)
15	Jednosměrný ventil / Einwegventil / One-way valve	93.002.038	1
16	Škrťací ventil / Drosselventil / Throttle-valve	93.021.045	1
17	Zvedací válec / Hubzylinder / Lifting cylinder	201.K307-000	1

Attention!

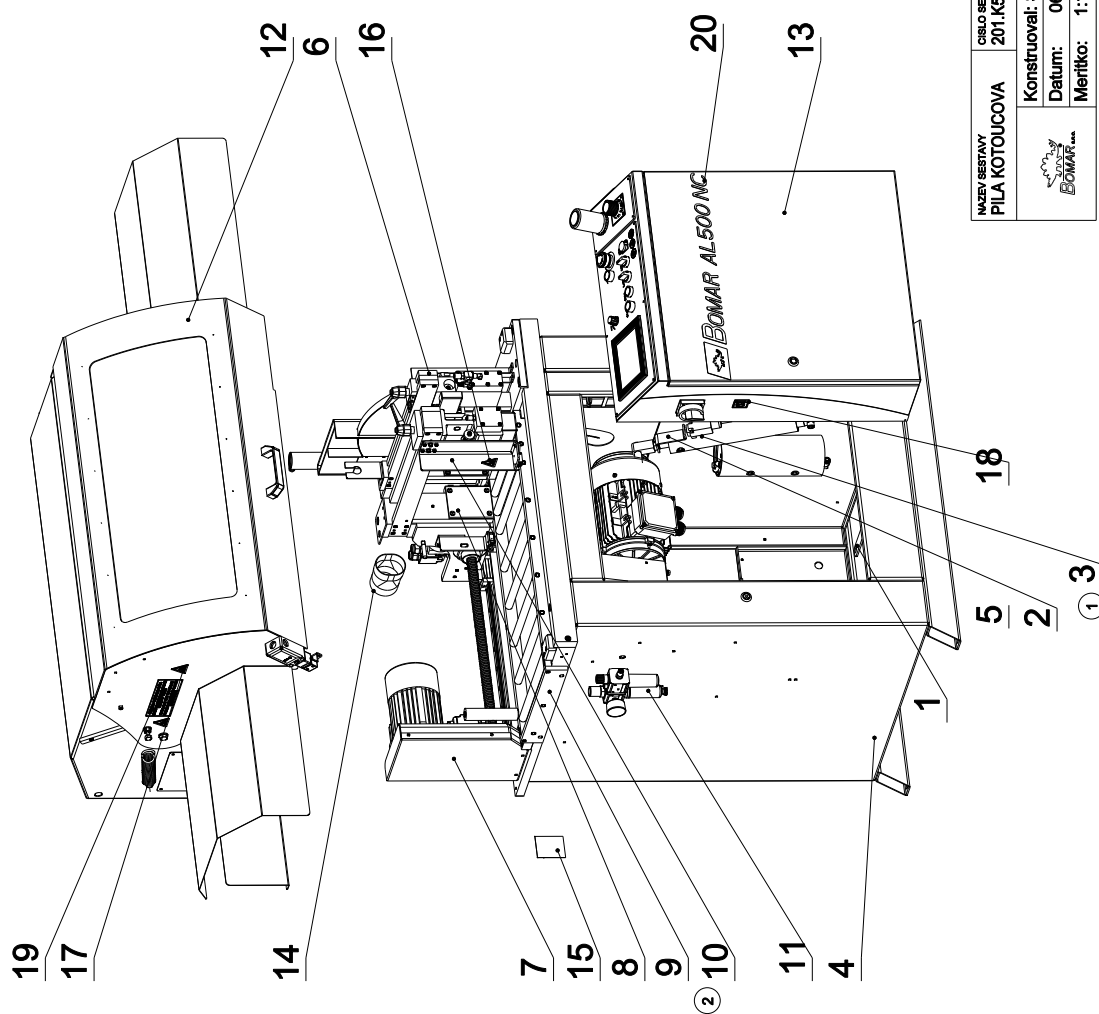
The saw arm must always be in the down position after finishing work and resting or during longer intervals between cuts or at night. Otherwise there is a risk of damage to the hydraulic part of the saw arm.

All material must be removed from the saw area. (Risk of damage to the saw blade)

8. **Výkresy sestav pro objednání náhradních dílů / Zeichnungen für Bestellung der Ersatzteile / Drawing assemblies for spare parts order**

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. AL 500 ANC) , výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. AL 500 ANC), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).
- For spare parts order, you must always to allege: type of machine (for example AL 500 ANC), serial number (for example 125, see cover page) and year of construction (for example 1999).

8.1. AL 500 ANC



NAZEV ŠESTVÝ PILA KOTOUČOVA	CÍSLO ŠESTVÝ 201.K500-600	STROJ ALU500A
Konstruoval: SOCHOR		
Datum: 06. 12.2017		
Měřtko: 1:10		

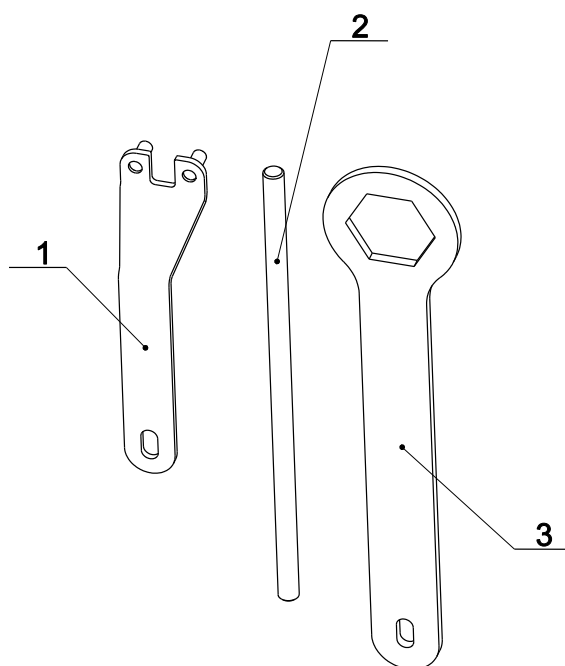
8.2. Kusovník / Piece list / Stückliste - AL 500 ANC

Číslo Sestavy 201.K500-600		Ver. 0	Název sestavy PILA KOTOUČOVÁ/CIRCULAR SAW/KREISSÄGE		
Poz.	Objednáací číslo	Ver.	Název položky	Rozměr	Ks
1	201.K114-100	0	SADA KLICU PLOCHÝCH / null / null		1
2	201.K207-020	0	DRŽÁK / HOLDER / HALTER		1
3	201.K307-100	1	VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLINDER		1
4	201.K501-650	0	PODSTAVEC / BASE / UNTERSATZ		1
5	201.K502-400	0	RAMENO / BEAM / RAHMEN		1
6	201.K503-600	0	STUHL / TABLE / TISCH		1
7	201.K505-500	0	POHON / DRIVE / ANTRIEB		1
8	201.K511-600	0	PODAVAC / FEEDER / VORSCHUB		1
9	201.K511-650	0	TRAT / TRACK / BAHN		1
10	201.K514-250	2	ZAVORA OPTICKÁ / OPTICAL GATE / LICHTSCHRANKE		1
11	201.K516-500	0	PNEUMATIKA / PNEUMATICS / PNEUMATIK		1
12	201.K518-650	0	KRYT / COVER / ABDECKUNG		1
13	201.K530-400	0	ROZVADEC / DISTRIBUTOR / VERTEILER		1
14	30.K516-200	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	TR 75x1.5	1
15	30.K599-501	0	STÍTEK TYPOVÝ / MACHINE LABEL / MASCHINE SCHILD	P 0,5-65	1
16	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP-STLACENI	3
17	99.900.040	0	SAMOLEPKA / STICKER / AUFKLEBER		2
18	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		1
19	99.900.066	0	SAMOLEPKA / STICKER / AUFKLEBER	NEVKLADAT RUCE	2
20	99.901.009	0	SAMOLEPKA / STICKER / AUFKLEBER	AL500NC	1

1. ZRUS. VALEC 201.K307-000 A NAHR. 201.K307-100. 175/ZM303 28.8.2018 SCERBA
2. ZRUS. OPTICKÁ ZAVORA 201.K514-150 A NAHR. OPTICKOU ZAVOROU 201.K514-250. 247/ZM348 21.8.2019 BENDA

Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.3. Klič / Key / Schlüssel



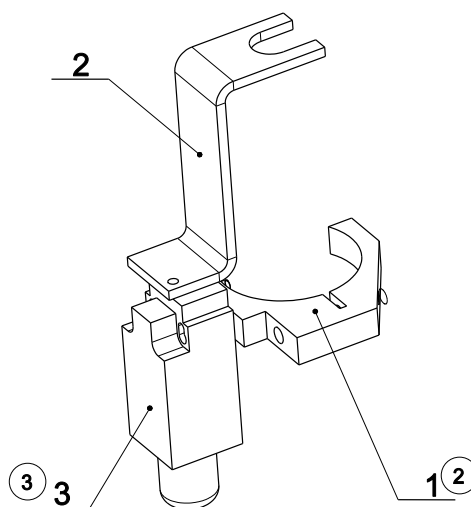
NAZEV SESTAVY SADA KLICU PLOCHYCH	CISLO SESTAVY 201.K114-100	STROJ AL400
	Konstruoval:	
	Datum:	04. 05.2018
	Meritko:	33:100

8.4. Kusovník / Piece list / Stückliste - Klíč / Key / Schlüssel

Číslo sestavy 201.K114-100		Ver. 0	Název sestavy SADA KLÍČU PLOCHÝCH/null/null	
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr
1	30.K114-101	0	DRŽÁK / HOLDER / HALTER	
2	30.K114-102	0	TYČ / POLE / STANGE	d 12
3	30.K114-104	0	KLÍČ / SPANNER / SCHLÜSSEL	P 4x80
				Ks
				1
				1
				1

Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.5. Držák / Holder / Halter



NAZEV SESTAVY DRZAK	CISLO SESTAVY 201.K207-020	STROJ ALU-400A
	Konstruoval: ZAJIC	
	Datum: 21. 01.2021	
	Meritko: 1:2	

8.6. Kusovník / Piece list / Stückliste - Držák / Holder / Halter

Číslo sestavy 201.K207-020		Ver. 0	Název sestavy DRŽÁK/HOLDER/HALTER	
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr
1	30.K114-301	0	DRŽÁK / HOLDER / HALTER	HR 60x15
2	30.K207-021	0	DORAZ / STOP PIECE / ANSCHLAG	P 4x30
3	91.173.007 (3)	0	SPÍNACÍ KONCOVÝ / END SWITCH / ENDSCHALTER	

1.ZRUS.DRŽÁK K207-019 A NAHRÁZEN DRŽÁKEM 30.K207-119. 003/ZM006 6.1.2010 SLEZACKOVA
2.ZRUSEN DRŽÁK 30.K207-119 A NAHRÁZEN DRŽÁKEM 30.K114-301. 003/ZM156 28.5.2010 SLEZACKOVA
3.DOPLNEN KONCOVÝ SPÍNACÍ 91.173.007. 014/030 21.1.2021 NESPUREK

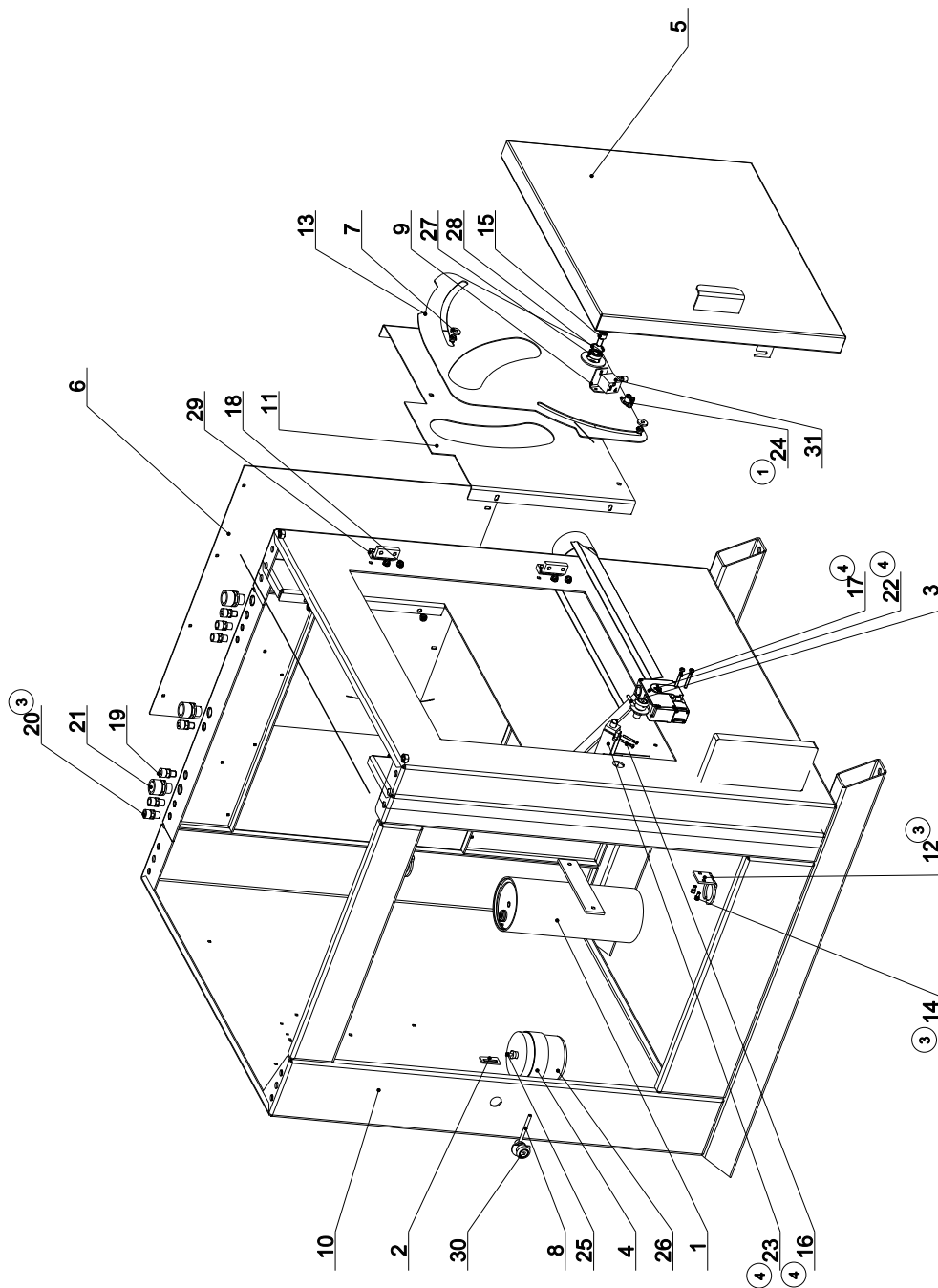
Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.8. Kusovník / Piece list / Stückliste - Válec zvedací / Hebezyylinder / Lifting cylinder

Číslo Sestavy 201.K307-100		Ver. 0	Nazev sestavy VALEC ZVEDACI/LIFTING CYLINDER/HEBEZYLYNDER		
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks
1	30.0514-004	0	CEP / PIVOT / BOLZEN	d 18	1
2	30.K107-003	0	POUZDRO / SLEEVE / BÜCHSE	d 18	1
3	30.K107-004	0	PIST / PISTON / KOLBEN	D 55	1
4	30.K107-005	0	DISTANC / SPACER / ABSTANDSSTÜCK	TR 28x3	1
5	30.K107-008	4	VIKO / COVER / DECKEL	d 55	1
6	30.K107-009	0	SROUB / SCREW / SCHRAUBE	SROUB M12X25	1
7	30.K107-010	0	MATICE / NUT / MUTTER	MATICE M16	1
8	30.K107-011	0	VIKO / COVER / DECKEL	d 50	1
9	30.K307-001	0	VALEC / CYLINDER / ZYLINDER	TR 55/50H8	1
10	30.K307-002	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d20	1
11	30.K307-003	0	DRZAK / HOLDER / HALTER	HR 25x25	1
12	90.001.25.062	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M12X50	1
13	90.003.2D.001	0	SROUB STAVECI / SET SCREW / STELLSCHRAUBE	SROUB M5X6	1
14	95.801.018	0	KROUZEK POJIST.VNITR / INTERNAL RETAINING RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 50	4
15	96.001.013	0	O-KROUZEK STATICKY / O-RING STATIC / O-RING STATISCH	45X2	2
16	96.002.007	0	O-KROUZEK DYNAMICKY / O-RING DYNAMIC / O-RING DYNAMISCH	16x2 NBR 70SH	1
17	96.041.002	0	MANŽETA / CUFF / MANSCHETTE	601-20x28x5	1
18	96.060.002	0	KROUZEK ŠTIRACI / WIPER RING / ABSTREIFRING	KROUZEK ŠTIRACI 20	1
19	96.084.001	0	KROUZEK VODICI / GUIDE RING / FÜHRUNGSRING	GP8500500-T47	2
20	96.900.001	0	TESNENÍ KOMBINOVANE / COMBINED SEALING / KOMBIDICHTUNG	PW4200500-Z20N	1

Číslo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.9. Podstavec / Base / Untersatz

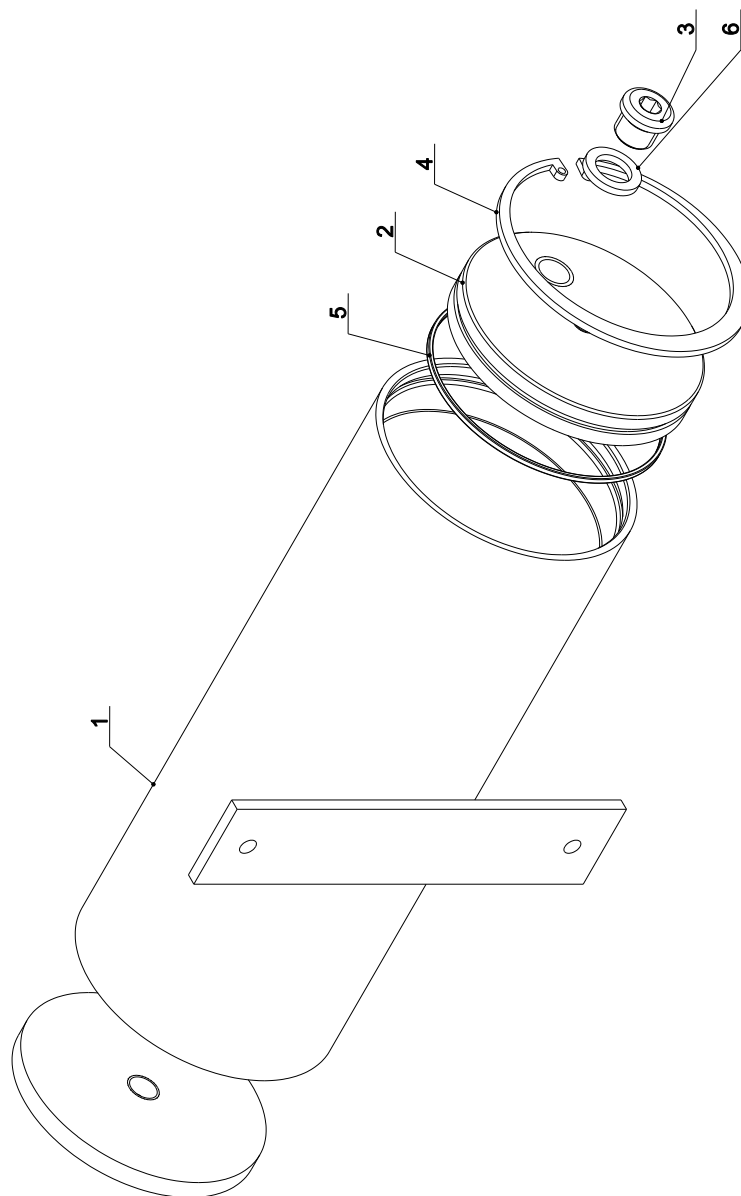


NAZEV ŠESTVÝ PODSTAVEC	ČÍSLO ŠESTVÝ 201.K501-650	STROJ ALU5000A
Konstruoval: SOCHOR		
Datum: 09. 06.2022		
Měřtko: 7:50		

8.10. Kusovník / Piece list / Stückliste - Podstavec / Base / Untersatz

Číslo sestavy 201.K501-650		Ver: 0	Název sestavy PODSTAVEC/BASE/UNTERSATZ		
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Kč
1	201.K107-300	0	NADŘEZ / CONTAINER / BEHALTER		1
2	30.K100-111	0	DRŽÁK / HOLDER / HALTER	P 3x22	1
3	30.K101-164	0	TYČ / POLE / STANGE	D 6	1
4	30.K103-023	0	DRŽÁK / HOLDER / HALTER	P1.6x30	1
5	30.K501-404	0	DVĚŘE / DOOR / TÜR		1
6	30.K501-406	0	KRYTÍ / COVER / ABDECKUNG	P2x5x7	1
7	30.K501-413	0	DÍŠTANEC / SPACER / ABSTANDSTÜCK	d 20	2
8	30.K501-414	0	TYČ / POLE / STANGE	d 6	1
9	30.K501-583	0	DRŽÁK / HOLDER / HALTER	P2x30	1
10	30.K501-652	0	PODSTAVEC / BASE / UNTERSATZ		1
11	30.K501-653	0	PRICKA / PARTITION / QUERLÄTTE		1
12	30.K501-654	3	DRŽÁK / HOLDER / HALTER	P 4x30	2
13	30.K501-682	0	PLECH / SHEET METAL / BLECH		1
14	90.001.25.007	3	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M3x10	4
15	90.001.25.046		SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M10x20	1
16	90.013.92.104	4	SROUB PULKULATÝ / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M4x30	2
17	90.013.92.109	4	SROUB PULKULATÝ / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M5x40	2
18	90.107.52.001		MATICE NYTOVACÍ / STIFFENUT / EINMETTMUTTER	M6	10
19	91.071.013	3	VÝVODKA HADICE / OUTLET FOR HOSE / SCHLAUCHTÖLLE	P37	3
20	91.071.014		VÝVODKA HADICE / OUTLET FOR HOSE / SCHLAUCHTÖLLE		5
21	91.071.017		VÝVODKA HADICE / OUTLET FOR HOSE / SCHLAUCHTÖLLE		3
22	91.171.019	4	SPINAC BEZPEČNOSTNÍ / SAFETY SWITCH / SICHERHEITSSCHALTER	IM16-MMM123	1
23	91.173.010	4	SPINAC KONČ. S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE		1
24	93.009.022	1	SROUBENÍ UHL. NÁYAC. KOVOME / null / null	M5-4	2
25	93.024.001		VENTIL / VALVE / VENTIL	ZFETNY	1
26	94.404.001	0	NADŘEZ / CONTAINER / BEHALTER	MIRKONIZERU	1
27	95.012.001	0	LOŽISKO / BEARING / LAGER	6000 2RS	1
28	95.801.020	0	KROUZEK POJIST.VNITR. / INTERNAL RETAINING RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 26	1
29	96.100.007	0	PANT / HINGE / TÜR BAND		2
30	96.104.004	0	ZAMEK / LOCK / SCHLOSS	LK3	2
31	96.150.002	0	MIRKONIZER / MICRONIZER		1
1.ZRUS SROUBENI 93.009.022.ZRUS.4xVYVODKA M16x1.5(91.071.015) A NAHR.4xM12x1.5(91.071.014), ZUSTAVA 3x VYVODKA M16x1.5(91.071.030) 082ZM151 30.04.2018 NEDUCHAL 2.PRID. 3xSROUB M4x40 90.013.92.111. 171/ZM311 6.9.2018 SZABARI 3.PRID. 2xDRZAK K501-654. 4xSROUB M5x10 90.001.25.007 A 1xVYVODKA M12 90.071.014. 241/ZM375 31.10.2018 SZABARI 4.ZRUS SPINAC KONCOVY 91.173.040 A NAHR.91.171.019;ZRUSEN SROUB M4x40(90.013.92.111) A NAHR.2x M5x40(90.013.92.109);PRID.2x SROUB 90.013.92.104. 031/ZM208 9.6.2022 JAGNESAK					
Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)Position/Position; Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung					

8.11. Nádrž / Container / Behälter



NÁZEV ŘEŠENÍ NADŘZ	ČÍSLO ŘEŠENÍ 201.K107-300	STŘEŠ ALU 400
Konstruoval: ZAJIC		
Datum: 13. 04.2015		
Měřítko: 1:2		

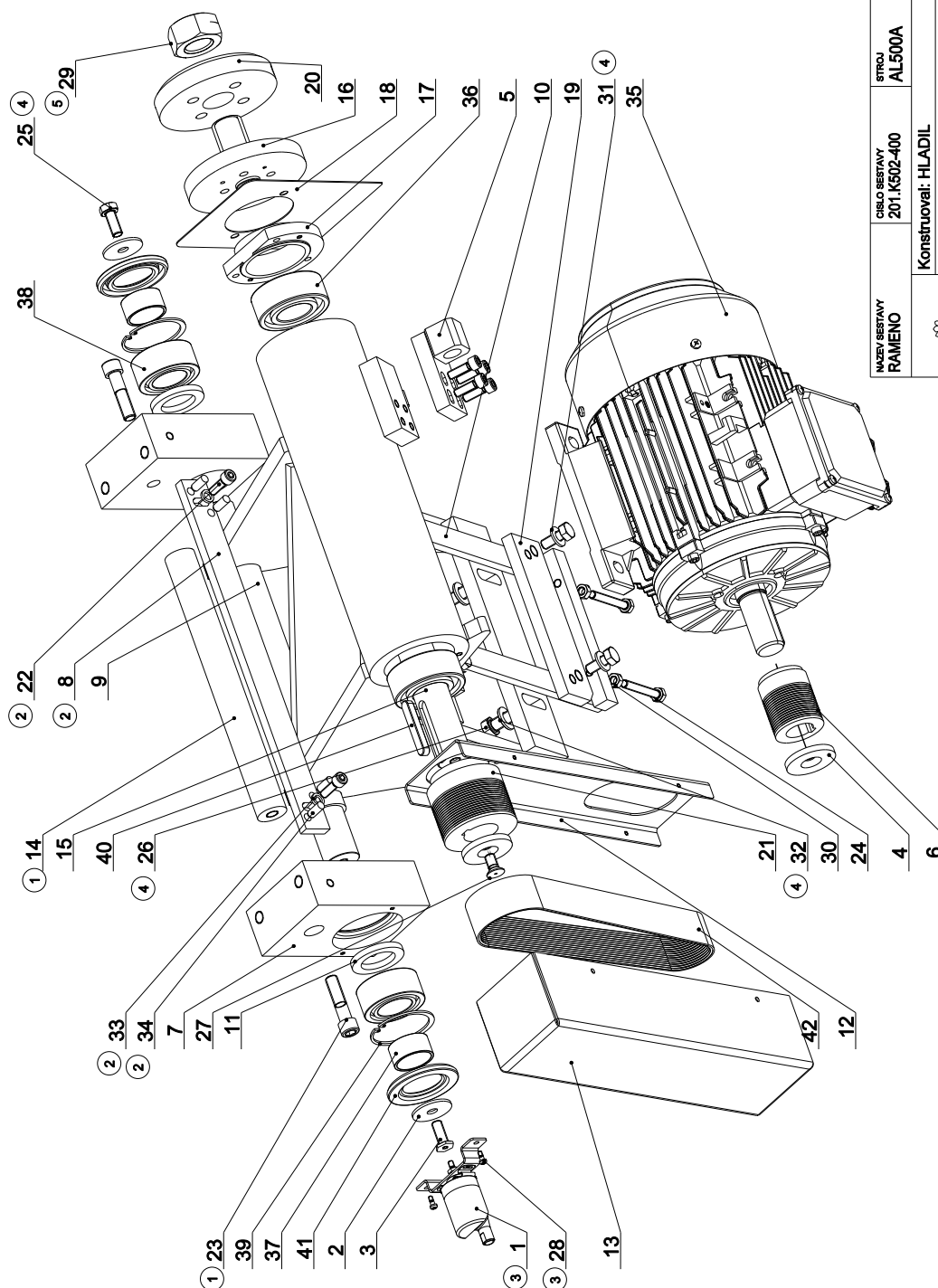
8.12. Kusovník / Piece list / Stückliste - Nádrž / Container / Behälter

Číslo sestavy 201.K107-300		Ver. 0	Název sestavy NADŘZ/CONTAINER/BEHÄLTER	
Poz.	Objednávací číslo	Ver.	Název položky	Ks
1	30.K107-301	0	NADŘZ / CONTAINER / BEHÄLTER	1
2	30.K107-302	0	VIKO / COVER / DECKEL	1
3	90.400.5Z.002	0	ZATKA / PLUGBLIND PLUG / BLINDSTOPFEN	1
4	95.801.031	0	KROUZEK POJIST.VNITR. / INTERNAL RETAINING RING / SICHERUNGSRING INNEN	1
5	96.002.022	0	O-KROUZEK DYNAMICKÝ / O-RING DYNAMISCH	1
6	96.081.001	0	KROUZEK TESNICÍ / SEALING RING / DICHTUNGSRING	1

1.ZRUS.1x"O" KROUZEK 96.002.022,1xPOJISTNY KROUZEK 95.801.031. 048/ZM148 24.5.2010 SLEZACKOVA

Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.13. Rameno / Shoulder / Sägerahmen



NAZEV ŠESTVÁNY RAMENO	CÍLO ŠESTVÁNY 201.K502-400	STROJ AL500A
Konstruoval: HLADIL		
Datum: 29. 09.2021		
Měřtko: 3:10		

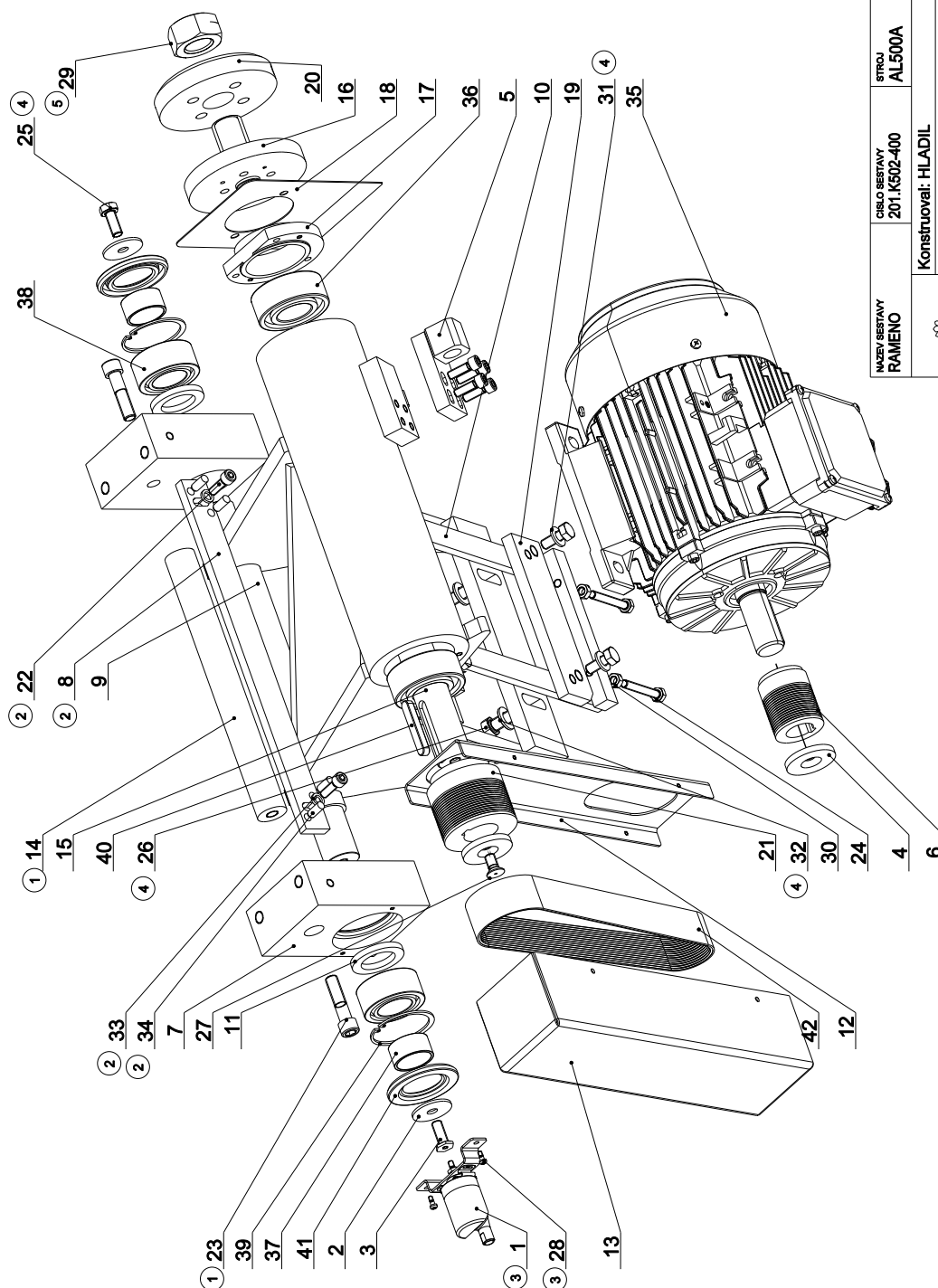
8.14. Kusovník / Piece list / Stückliste - Rameno / Shoulder / Sägerahmen

Cílo Sestavy 201.K502-400		Ver. 0	Nazev sestavy RAMENO/BEAM/RAHMEN		
Poz.	Objednací cílo	Ver.	Nazev položky	Rozměr	Ks
1	201.IRC11-000 (3)	0	ODMĚROVÁNÍ / MEASURING / GEHRUNGSMESSUNG		1
2	30.0505-011	1	PODLOŽKA / WASHER / UNTERLEGSCHEBE	P 2.5x40	2
3	30.2802-003	0	SROUB / SCREW / SCHRAUBE	M10x25	1
4	30.2908-001	2	PODLOŽKA / WASHER / UNTERLEGSCHEBE	P6	2
5	30.K102-010	0	DRŽÁK / HOLDER / HALTER		1
6	30.K302-018	0	REMENICE / PULLEY / RIEMENSCHNUR	TYC 50	1
7	30.K502-401	0	POUZDRO LOŽISKA / BEARING HOUSING / LAGERBUCHSE	HR 100x50	2
8	30.K502-402 (2)	0	LISTA DORAZOVÁ / STOP SLAT / ANSCHLAGLEISTE	HR 30x10	1
9	30.K502-403	0	KONZOLA / BRACKET / KONSOL		1
10	30.K502-405	0	NAPÍNÁNÍ / TENSIONING / SPANNUNG		1
11	30.K502-407	0	KROUZEK / RING / RING	d 56	2
12	30.K502-408	0	PLECH / SHEET METAL / BLECH	P2x125	1
13	30.K502-409	0	KRYT / COVER / ABDECKUNG	P2x249	1
14	30.K502-410 (1)	0	TYC KRUHOVÁ / ROUND POLE / RUNDSTANGE	D30	1
15	30.K502-411	0	HRIDEL / SHAFT / WELLE	d 60	1
16	30.K502-412	0	HRIDEL / SHAFT / WELLE	d 120	1
17	30.K502-415	0	PŘÍRUBA / FLANGE / FLANSCH	d 100	1
18	30.K502-419	0	KRYT / COVER / ABDECKUNG	P1x130	1
19	30.K502-420	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	HR 50x12	2
20	30.K601-108 (4)	0	KOTOUČ / DISC / SCHEIBE	D 120	1
21	30.K601-114	0	REMENICE / PULLEY / RIEMENSCHNUR	TYC 75	1
22	90.001.25.033	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	8x25	6
23	90.001.25.062 (2)	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M12X50	2
24	90.005.55.021 (1)	0	SROUB 6HRANNÝ / HEX HEAD SCREW / SECHSHKANTSCHRAUBE	SROUB M8X60	2
25	90.005.55.024	0	SROUB 6HRANNÝ / HEX HEAD SCREW / SECHSHKANTSCHRAUBE	SROUB M10X25	5
26	90.005.55.033 (4)	0	SROUB 6HRANNÝ / HEX HEAD SCREW / SECHSHKANTSCHRAUBE	SROUB M12X35	4
27	90.011.27.008	0	SROUB ZAPUSTNÝ / COUNTERSUNK SCREW / SENKSCHRAUBE	SROUB M10X20	1
28	90.013.27.015	0	SROUB PULKULATÝ / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M4x10	2
29	90.100.25.013 (5)	0	MATICE / NUT / MUTTER	MATICE _ M30 _ LH _ CERNÁ	1
30	90.100.55.005	0	MATICE PŘESNÁ ZINĚK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M8	2
31	90.150.50.006 (4)	0	PODLOŽKA / WASHER / UNTERLEGSCHEBE	PODLOŽKA 10,5	4
32	90.150.50.007 (4)	0	PODLOŽKA / WASHER / UNTERLEGSCHEBE	PODLOŽKA B13	4
33	90.163.00.002 (2)	0	PODLOŽKA / WASHER / UNTERLEGSCHEBE	NORD-LOCK	2
34	90.300.02.008 (2)	0	KOLÍK VALCOVÝ KALENÝ / CYLINDRICAL PIN HARDENED / ZYLINDERSTIFT GEHÄRTET	KOLIK 8X20	4

Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Puzba (Poz./Position/Position; Objednací cílo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednáci cílo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.15. Rameno / Shoulder / Sägerahmen



NAZEV ŠESTVANY RAMENO	CÍLOVÝ ŠESTVANY 201.K502-400	STROJ AL500A
Konstruoval: HLADIL		
Datum: 29. 09.2021		
Měřtko: 3:10		

8.16. Kusovník / Piece list / Stückliste - Rameno / Shoulder / Sägerahmen

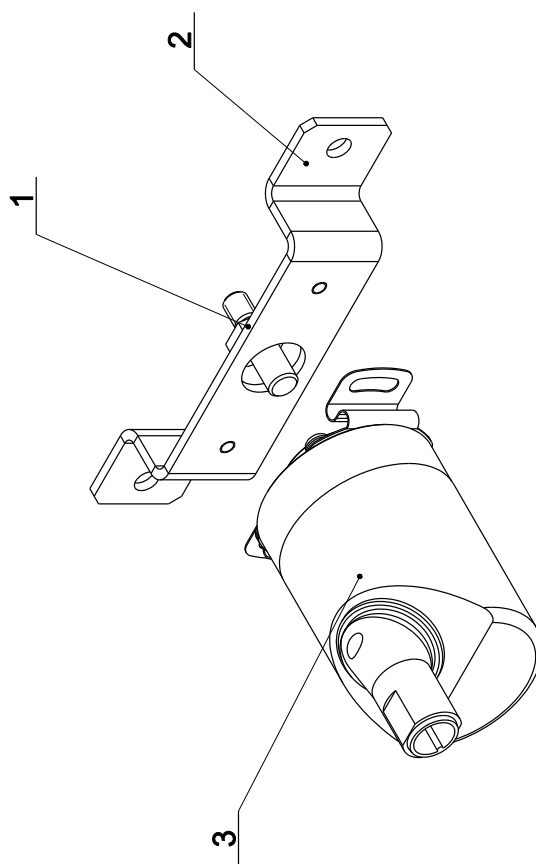
35	91.001.054	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	4kW, 2P, B3, IE3	1
36	95.001.068	0	LOZISKO / BEARING / LAGER	3207-2RS	2
37	95.005.005	0	KROUZEK / RING / RING	INA IR 35x40x20	2
38	95.400.013	0	LOZISKO JEHLÖVE / NEEDLE BEARING / NADELLAGER	N44007V	2
39	95.801.010	0	KROUZEK POJIST.VNITR / INTERNAL RETAINING RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 62	2
40	95.810.011	0	PERO TESNE / FEATHER KEY / PASSFEDER	PERO 10X8X60	1
41	95.830.005	0	GUFERO / RADIAL SHAFT SEAL / WELLENDICHTRING	GUFERO 40X72X7	2
42	99.023.037	0	REMEN DRAZKOVY / GROOVED BELT / KEILRIPPENRIEMEN	16PJ	1

1. PRIDANA TYC 30.K502-410 A 2xSROUB M12x50 90.001.25.062 . 233/ZM354 7.11.2017 SOCHOR
2. PRIDANA DORAZOVA LISTA 30.K502-402.4xKOLIK 8x20 90.300.OZ.008.2xSROUB M8x25 90.001.25.033.2xPODLOZKA NORD-LOCK M8x13,5 90.163.00.002.
- 207/ZM354 5.10.2018 SOCHOR
3. ZRUS ODMEROVANI 201.0614-200 A NAHR.201.IRC11-000,PRID.2xSROUB M4x10 90.013.27.015. 189/ZM282 30.7.2020 SLEZACKOVA
4. ZRUS. 4x SROUB 90.005.55.070, PRID. 2x REDUKCE 30.K502-420, PRID. 4x SROUB. 90.005.55.024, PRID. 4x PODLOZKA 90.150.50.006, PRID. 4x SROUB 90.005.55.033, PRID. 4x POLOZKA 90.150.50.007, 256/ZM352 29.9.2021 KOVAR
5. ZRUS.MATICE 30.K502-418 A NAHR.90.100.25.013. 134/ZM230 28.6.2022 JAGNESAK

Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

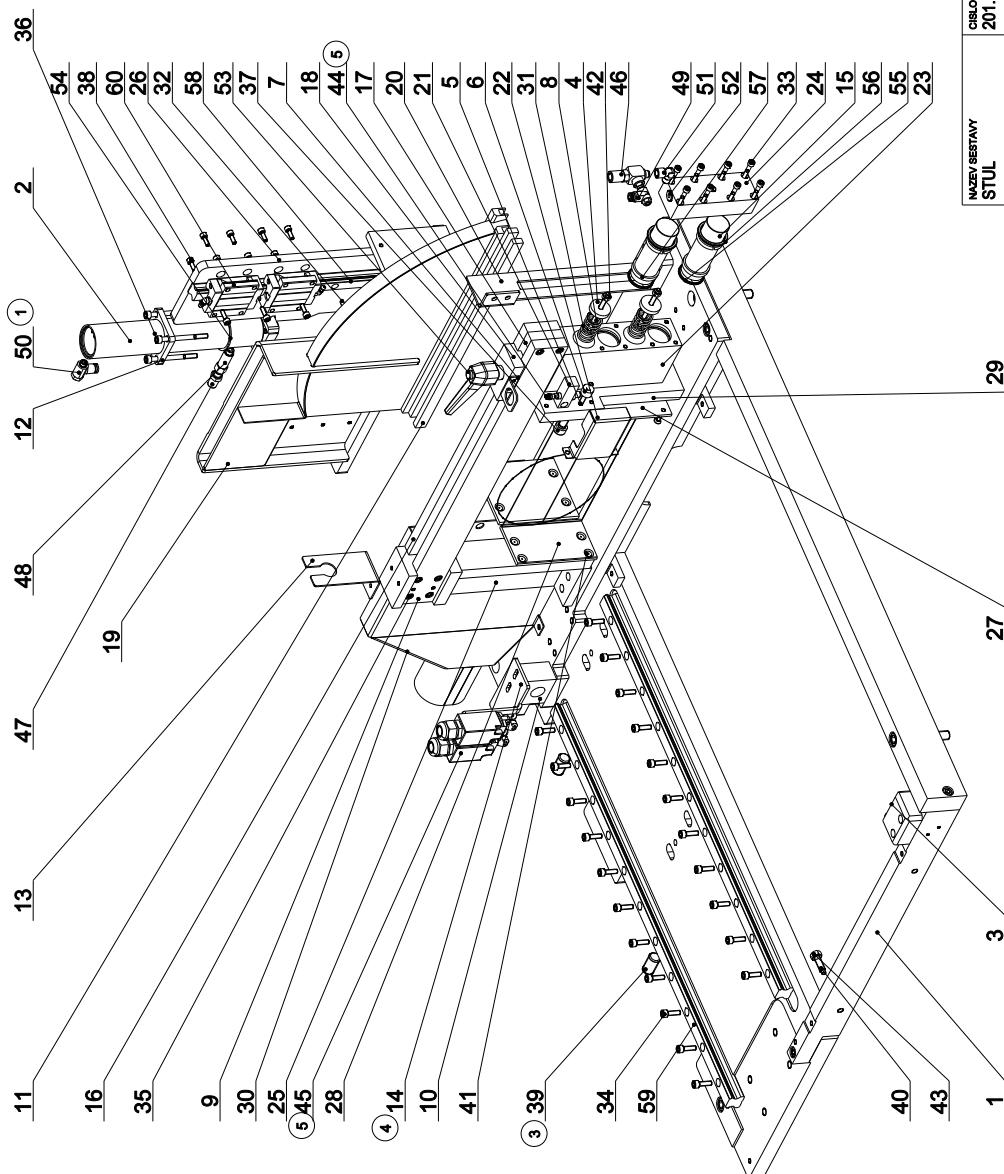
8.17. Odměrování / Measuring / Gehrungsmessung

Číslo Sestavy 201.IRC11-000		Ver. 0	Nazev sestavy ODMEROVANI/MEASURING/GEHRUNGSMESSUNG		
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks
1	30.IRC11-001	0	CEP / PIVOT / BOLZEN	6HR 10	1
2	30.IRC11-003	0	DRŽÁK / HOLDER / HALTER	P 2x20	1
3	91.103.124	0	SNIMAC INKREMENTALNI / INCREMENTAL SENSOR / INKREMENTALSENSOR	RA3101	1



Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.18. Stůl / Table / Tisch



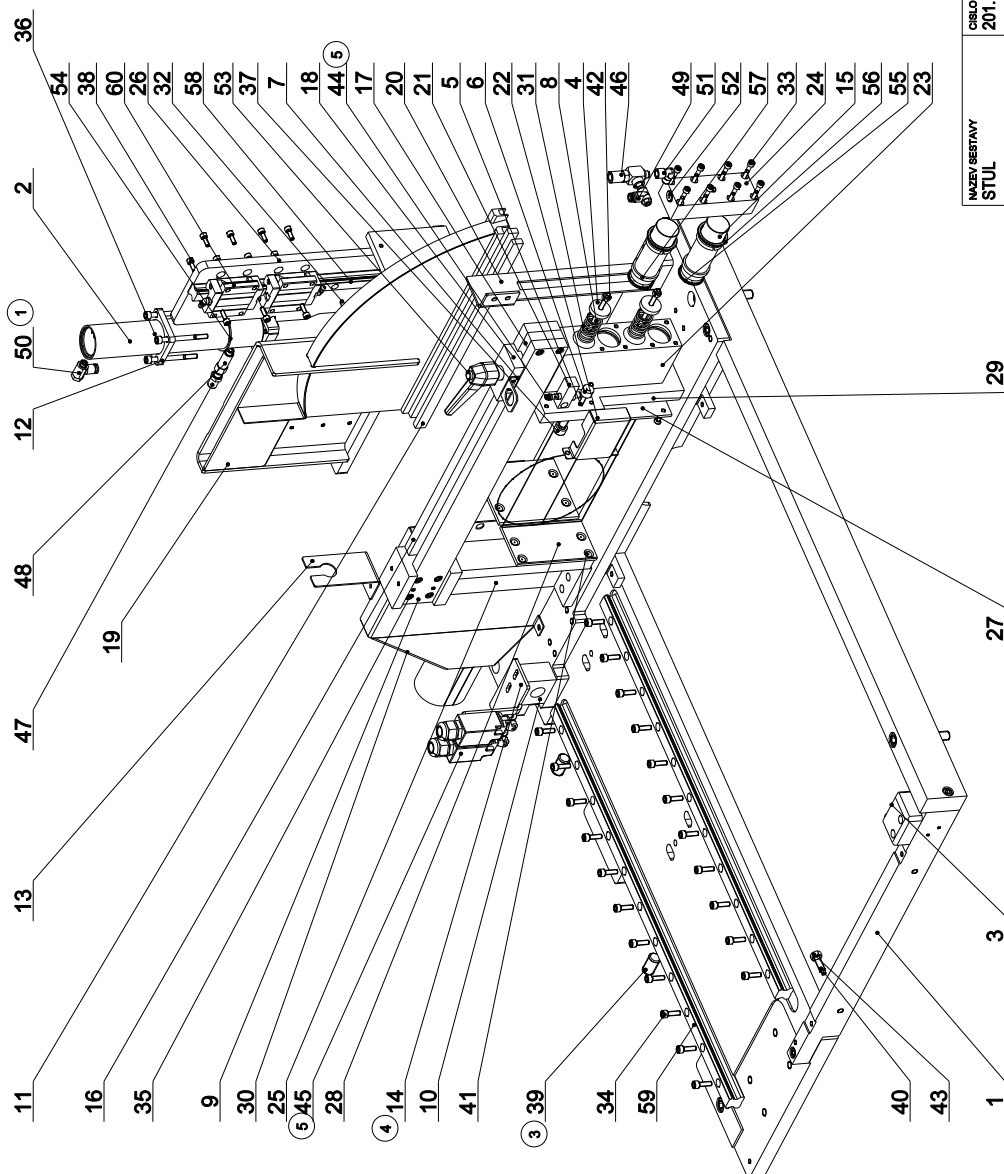
NAZEV SESTAVY STYL	ČÍSLO SESTAVY 201.K503-600	STROJ ALU500A
Konstruoval: SOCHOR		
Datum: 04. 07 2019		
Měřtko: 1:5		

8.19. Kusovník / Piece list / Stückliste - Stůl / Table / Tisch

Cílo Sestavy 201.K503-600		Ver. 0	Nazev sestavy STUL/TABLE/TISCH			
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks	
1	201.K503-601	0	RAM / FRAME / RAHMEN		1	
2	201.K507-400	0	VALEC UPINACÍ / FIXING CYLINDER / SPANNZYLINDER		1	
3	30.K103-036	0	KOSTKA / CUBE / WÜRFEL	HR 50x60	2	
4	30.K203-014	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	d28	2	
5	30.K203-016	0	TYC ZAVITOVÁ / T-THREADED POLE / GEWINDESTANGE	TYC ZAVIT. M6	1	
6	30.K203-017	0	KROUZEK / RING / RING	d 15	1	
7	30.K203-022	0	DRŽAK / HOLDER / HALTER	P 2x33	1	
8	30.K203-029	0	TYC ZAVITOVÁ / T-THREADED POLE / GEWINDESTANGE	M6	2	
9	30.K503-004	0	LISTA VODICI / GUIDING SLAT / FÜHRUNGSLEISTE	TYC 50x15	1	
10	30.K503-415	0	KOSTKA / CUBE / WÜRFEL	HR 50x30	1	
11	30.K503-418	0	LISTA / SLAT / LEISTE	HR 8x15	2	
12	30.K503-423	0	DRŽAK / HOLDER / HALTER	P 8x56	1	
13	30.K503-428	0	DRŽAK / HOLDER / HALTER	P2x50	1	
14	30.K503-506	0	DRŽAK / HOLDER / HALTER	P4x98	1	
15	30.K503-508	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 32h6	2	
16	30.K503-511	0	LISTA VODICI / GUIDING SLAT / FÜHRUNGSLEISTE	HR 50x15	1	
17	30.K503-512	0	SPOJKA / CLUTCH / KUPPLUNG	HR 15x15	1	
18	30.K503-519	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	HR 40x20	1	
19	30.K503-534	0	KRYT / COVER / ABDECKUNG		1	
20	30.K503-535	0	VEDENÍ / GUIDE / FÜHRUNG	P3x78	1	
21	30.K503-536	0	DRŽAK / HOLDER / HALTER	HR 16x16	1	
22	30.K503-537	0	KRYT / COVER / ABDECKUNG	P 1x86	1	
23	30.K503-607	0	DRŽAK / HOLDER / HALTER	HR 80x60	1	
24	30.K503-609	0	VIKO / COVER / DECKEL	HR 50x30	1	
25	30.K503-612	0	SLOUP / POLE / SÄULE		1	
26	30.K503-613	0	SLOUP / POLE / SÄULE		1	
27	30.K503-615	0	LISTA CELISTI / JAW SLAT / BACKENLEISTE	P 5x45	1	
28	30.K503-616	0	LISTA CELISTI / JAW SLAT / BACKENLEISTE	P 5x120	1	
29	30.K503-617	0	CELIST POHYBLIVÁ / MOVING JAW / BEWEGLICHE BACKE	HR 70x20	1	
30	30.K503-623	0	ODSAVANI / SUCTION / ABSAUGUNG		1	
31	31.K203-015	0	PRUZINA / SPRING / FEDER	2x22x40x(4.5+2)	2	
32	90.001.25.009	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5X16	8	
33	90.001.25.012	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5X30	8	
34	90.001.25.018	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X20	22	

Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.20. Stůl / Table / Tisch



NAZEV SESTAVY STYL	ČÍSLO SESTAVY 201.K503-600	STYL ALU500A
Konstruoval: SOCHOR		
Datum: 04. 07. 2019		
Měřítko: 1:5		

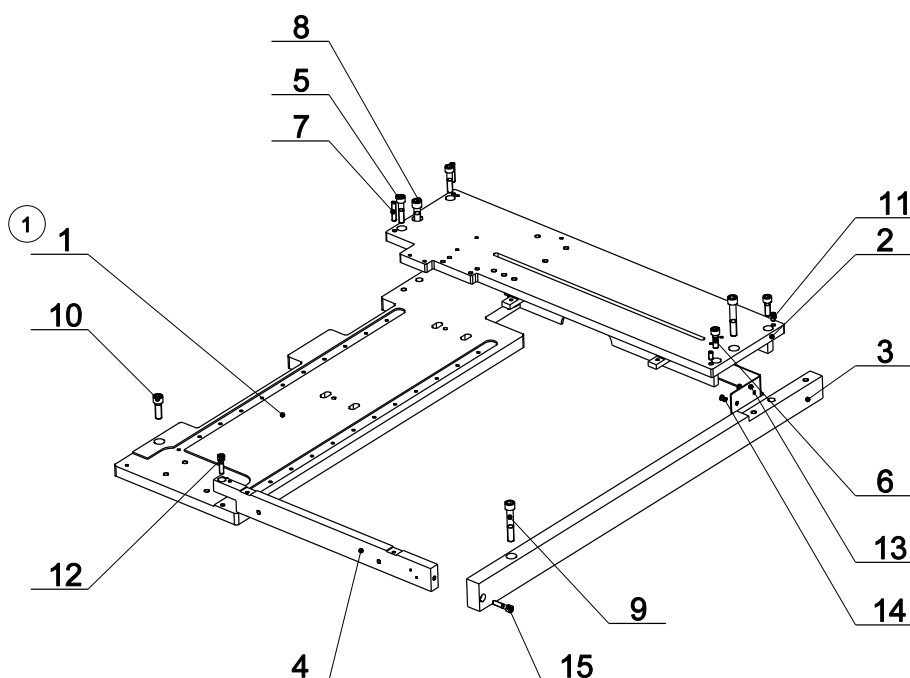
**8.21. Kusovník / Piece list / Stückliste -
Stůl / Table / Tisch**

35	90.001.25.020		0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X30	6
36	90.001.25.027		0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X70	4
37	90.001.25.046		0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M10X20	2
38	90.001.25.087		0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X14	8
39	90.002.2D.071	(3)	0	SROUB STAVECI / SET SCREW / STELLSCHRAUBE	SROUB M16x1,5x30	2
40	90.004.2D.010		0	SROUB STAVECI / SET SCREW / STELLSCHRAUBE	SROUB M6X35	2
41	90.011.27.003		0	SROUB ZAPUSTNY / COUNTERSUNK SCREW / SENKSCHEIBE	SROUB M6X10	12
42	90.100.55.004		0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE_M6	2
43	90.100.55.005		0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE_M8	2
44	91.172.033	(5)	0	SPINAC INDUKTIVNI / INDUCTIVE SWITCH / INDUKTIVER SCHALTER	IME08-02BPSZT05	1
45	91.173.008	(5)	0	SPINAC KONC.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	D4N-4A62	2
46	93.002.038		0	VENTIL / VALVE / VENTIL	G1/8	1
47	93.005.001		0	SROUBENI PRIME / TUBE FITTING - STRAIGHT / GERADE VERSCHRAUBUNG	G 1/8-6/4	1
48	93.012.020		0	SROUBENI PRIME / TUBE FITTING - STRAIGHT / GERADE VERSCHRAUBUNG	2070 G1/8-1/8	1
49	93.021.045		0	VENTIL SKRTICI / CHOKE VALVE / DROSSELVENTIL	1/8" 6/4	1
50	93.021.049	(1)	0	VENTIL SKRTICI / CHOKE VALVE / DROSSELVENTIL	8853 G1/8-6	1
51	93.023.090		0	SROUBENI UHLOVE / ANGLE TUBE FITTING / WINKELVERSCHRAUBUNG	5020 - G1/8"	1
52	93.023.097		0	ZATKA / PLUGBLIND PLUG / BLINDSTOPFEN	G1/8"	1
53	94.008.012		0	PAKA MONTAZNI / ASSEMBLY LEVER / MONTAGEHEBEL	M12x70	1
54	95.800.017		0	KROUZEK POJIST.VNEJSI / EXTERNAL RETAINING RING / SICHERUNGSRING AUSSEN	POJISTINY KROUZEK 45	1
55	96.002.016		0	O-KROUZEK DYNAMICKY / O-RING DYNAMIC / O-RING DYNAMISCH	32X2	2
56	96.002.017		0	O-KROUZEK DYNAMICKY / O-RING DYNAMIC / O-RING DYNAMISCH	34x3 NBR 70SH	2
57	96.084.003		0	KROUZEK VODICI / GUIDE RING / FÜHRUNGSRING	GR6500320-T47	4
58	96.200.418		0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 20R 360 E=30	1
59	98.200.484		0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 25R	2
60	99.201.045		0	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA20ESSF0N	2

1. ZRUS. VENTIL SKRTICI 93.021.027 A NAHR. 93.021.049. 020/ZM035 30.1.2019 SZABARI
2. ZRUS. DRZAK 30.K503-526 A ZAMEK 91.173.039; 148/ZM205 13.5.2019 SCERBA
3. PRID. 2XSROUB STAVECI M16x1 5x30 90.002.2D 071 203/ZM277 11.7.2019 SZABARI
4. ZRUS. DRZAK 30.K506-406 A NAHR. 30.K503-506. 161/ZM219 SLEZACKOVA
5. NAHRADA SNIMACE 91.173.009 ZA 91.173.008 A 91.172.001 ZA 91.172.033. 014/ZM030 21.1.2021 NESPUREK

Cielo Sestavy/Number of assembly/Nummer der Baugruppe; Pozice (Pos.)/Position/Position;	Verze (Ver.)/Version/Version;	Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Pos.)/Position/Position;	Nazev polozky/Volume title/Name der Position; Rozmer/Stock size/Abmessung
Objednací číslo/Purchase order number/Bestellnummer;			

8.22. Rám / Frame / Rahmen



NAZEV SESTAVY RAM	CISLO SESTAVY 201.K503-601	STROJ ALU500A
	Konstruoval: SOCHOR	
	Datum: 24. 01.2020	
	Meritko: 1:10	

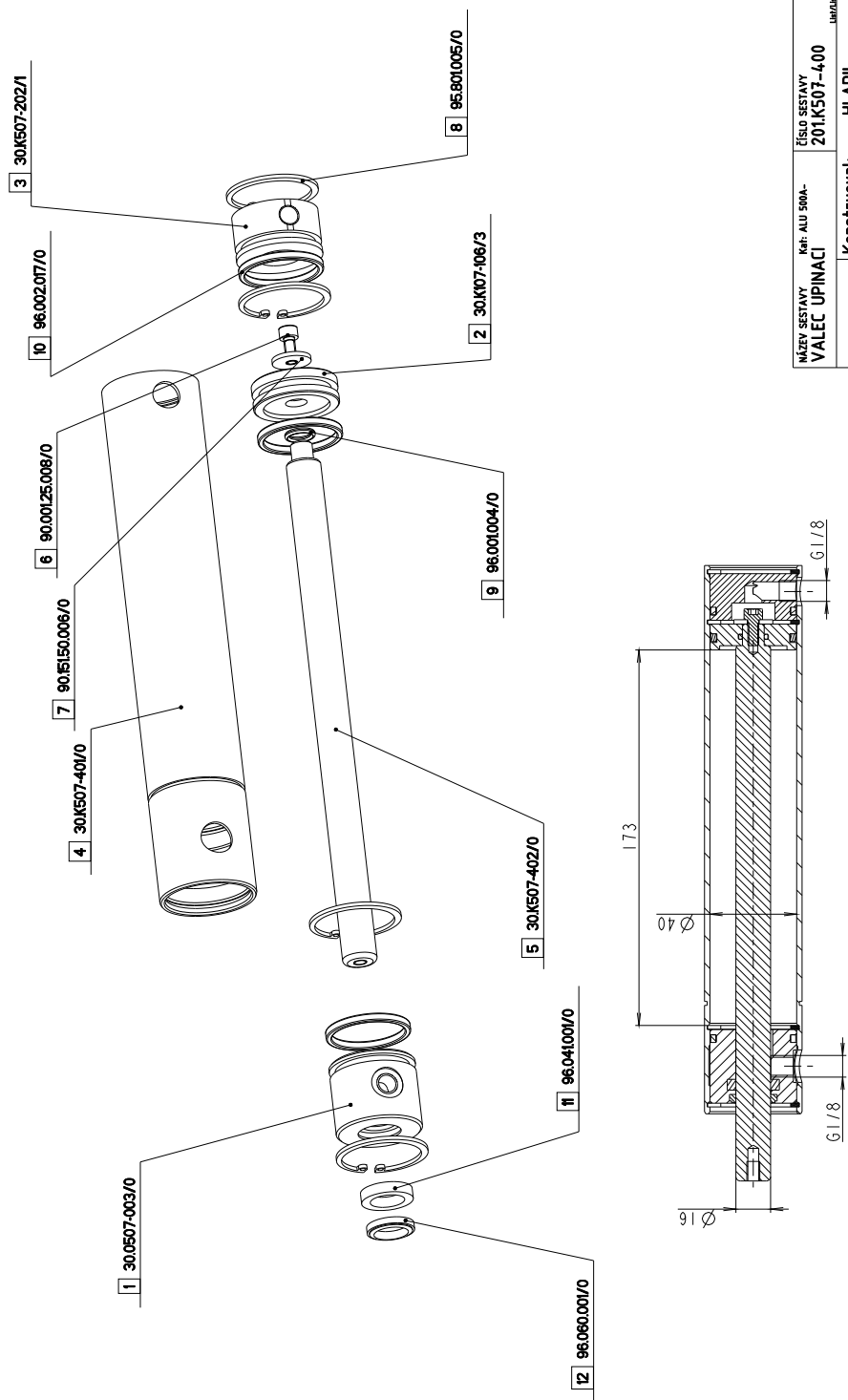
8.23. Kusovník / Piece list / Stückliste - Rám / Frame / Rahmen

Císlo sestavy 201.K503-601		Ver. 0	Název sestavy RÁM/FRAME/RAHMEN			
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks	
1	30.K503-610	0	DESKA / BOARD / PLATTE		1	
2	30.K503-602	0	RÁM / FRAME / RAHMEN		1	
3	30.K503-603	0	HRANOL / BLOCK / PRISMA	HR 80x30	1	
4	30.K503-604	0	HRANOL / BLOCK / PRISMA	HR 50x20	1	
5	90.001.25.051	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M10x45	2	
6	90.001.25.048	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M10x30	2	
7	90.002.2D.038	0	SROUB STAVEČI / SET SCREW / STELLSCHRAUBE	SROUB M8x40	2	
8	90.001.25.061	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M12x45	1	
9	90.001.25.064	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M12x70	2	
10	90.001.25.059	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M12x35	1	
11	90.002.2D.012	0	SROUB STAVEČI / SET SCREW / STELLSCHRAUBE	SROUB M8x18	2	
12	90.001.55.083	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M8x30	1	
13	30.K503-606	0	PLECH / SHEET METAL / BLECH	P2x67	1	
14	90.013.27.003	0	SROUB PULKULATY / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M6x10	3	
15	90.001.25.035	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M8x35	1	

1.ZRUS. DESKA 30.K503-605 A NAHR 30.K503-610. 203/ZM277 11.7.2019 SZABARI

Císlo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.24. Válec upínací / Fixing cylinder / Spannzylinder



NÁZEV SOUSTAVY VALEC UPÍNAČÍ	Kód: ALU 500A-	ČÍSLO SOUSTAVY 201K507-400	Revize 0
Konstruoval: HLADIL			Upravená verze
Datum: 12.09.2022			
Měřítko: 3:5			

8.25. Kusovník / Piece list / Stückliste - Válec upínací / Fixing cylinder / Spannzylinder

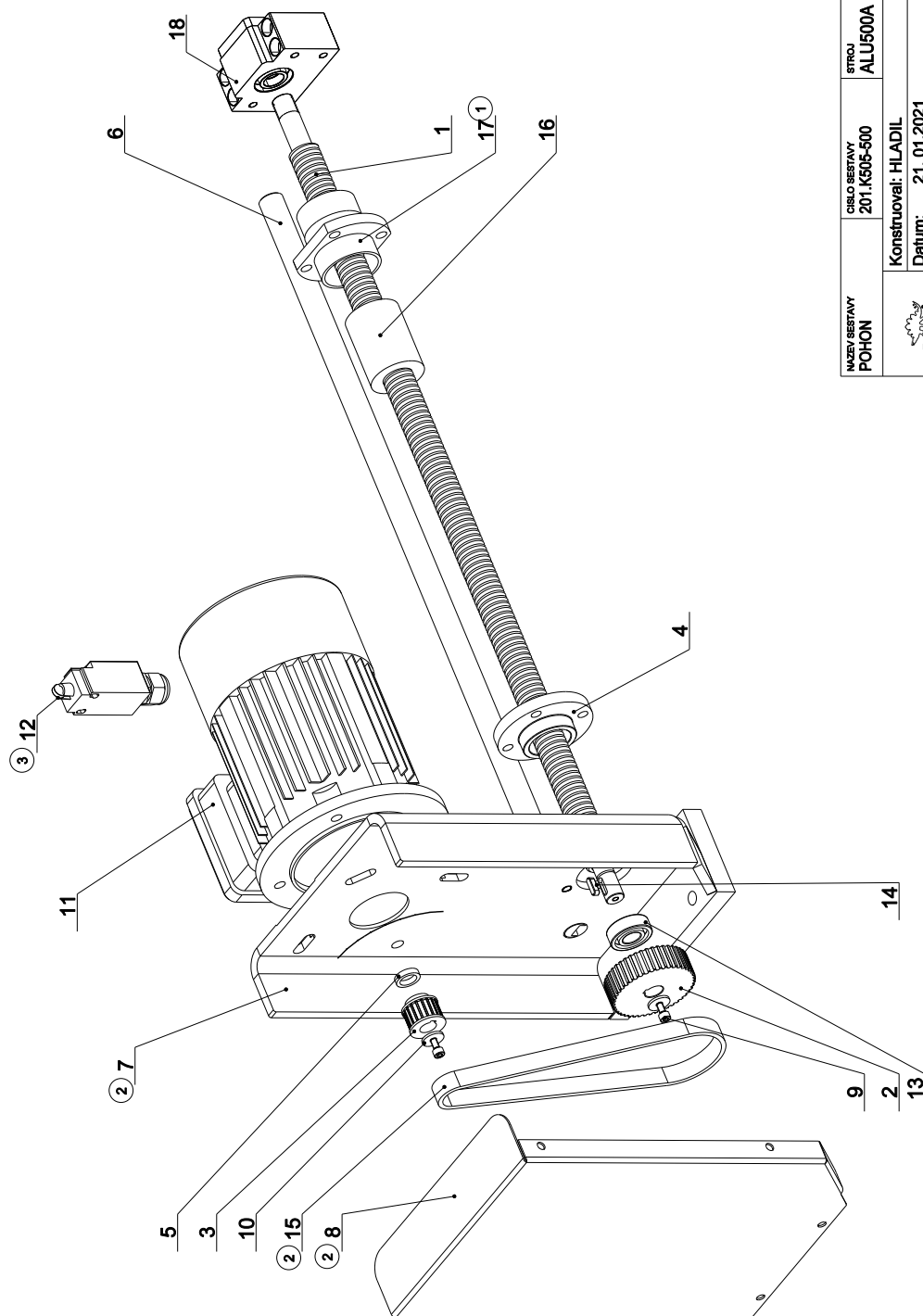
NÁZEV SESTAVY		ČÍSLO SESTAVY		REVIZE	Kategorie: ALU 500A-		Konstruktér: HLADIL		
VALEC UPINACI		201K507-400		0	Datum: 12.09.2022				
		Lis/Letě 2/2		0.3					
pos.	číslo výkresu	verze	množství	název	polotovary	jakost	pov.úpr.	váha	poznámka
1	30.0507-003	0	1	VÍKO	d 45 - 37	CERNY SILON		0.3	
2	30.K107-106	3	1	PIST	DA5 - 14 40.540.00.11	ENAW2007		0.0	
3	30.K507-202	1	1	VÍKO	DA5 - 24 40.540.00.11	ENAW2007		0.1	
4	30.K507-401	0	1	VALEC	TR45x2.5 - 255 40.350.00.02	Sf52 - H8		0.6	
5	30.K507-402	0	1	PISTNICE	D16 - 260 40.800.00.01	20MnV6		0.4	
6	90.001.25.008	0	1	SROUB IMBUS	5x12 DIN 912 8.8 černěný			0.0	
7	90.15150.006	0	1	PODLOŽKA VELKOPL.	5,5x18x2 M5 DIN 440 Zn			0.0	
8	95.801.005	0	4	KROUZEK POJIST.VNITR	d40 DIN 472			0.0	
9	96.001.004	0	1	O-KROUZEK STATICKY	10x2 NBR70SH			0.0	
10	96.002.017	0	3	O-KROUZEK DYNAMICKY	34x3 NBR 70 lesklé materiál HH076880			0.2	
11	96.041.001	0	1	MANŽETA	16x24x4 UN			0.0	
12	96.060.001	0	1	KROUZEK STIRACI	16x22 NBR 70	RUBENA		0.0	
INDEX ZMĚNA								DATUM	PODPIS

INDEX ZMĚNA

DATUM PODPIS

Číslo sestavy/Number of assembly/Numer der Baugruppe; Verze (Ver./Version/Version; Název sestavy/Assembly name/Name der Baugruppe; Datum/Date/Datum; Konstruktor/Designer/Konstrukteur;Číslo výkresu/Drawing number/Zeichnung number; Název/Name/Name; Polotovary/Semiproduct/Halbfabrikat; Vstupní materiál/Vstupní mat./Default material/Eingangsmaterial; Jakost/Norm/Norm; Pov. úpr./Surface finish/Oberflächengüte;Váha/Weight/Gewicht; Poznámka/Note/Notiz

8.26. Pohon / Drive / Antrieb



	IMENJE BISTAVY		CISLO BISTAVY	STROJ
	POHON		201.K505-500	ALU500A
	Konstruiral: HILADIL			
	Datum: 21. 01. 2021			
Meritko: 9:25				

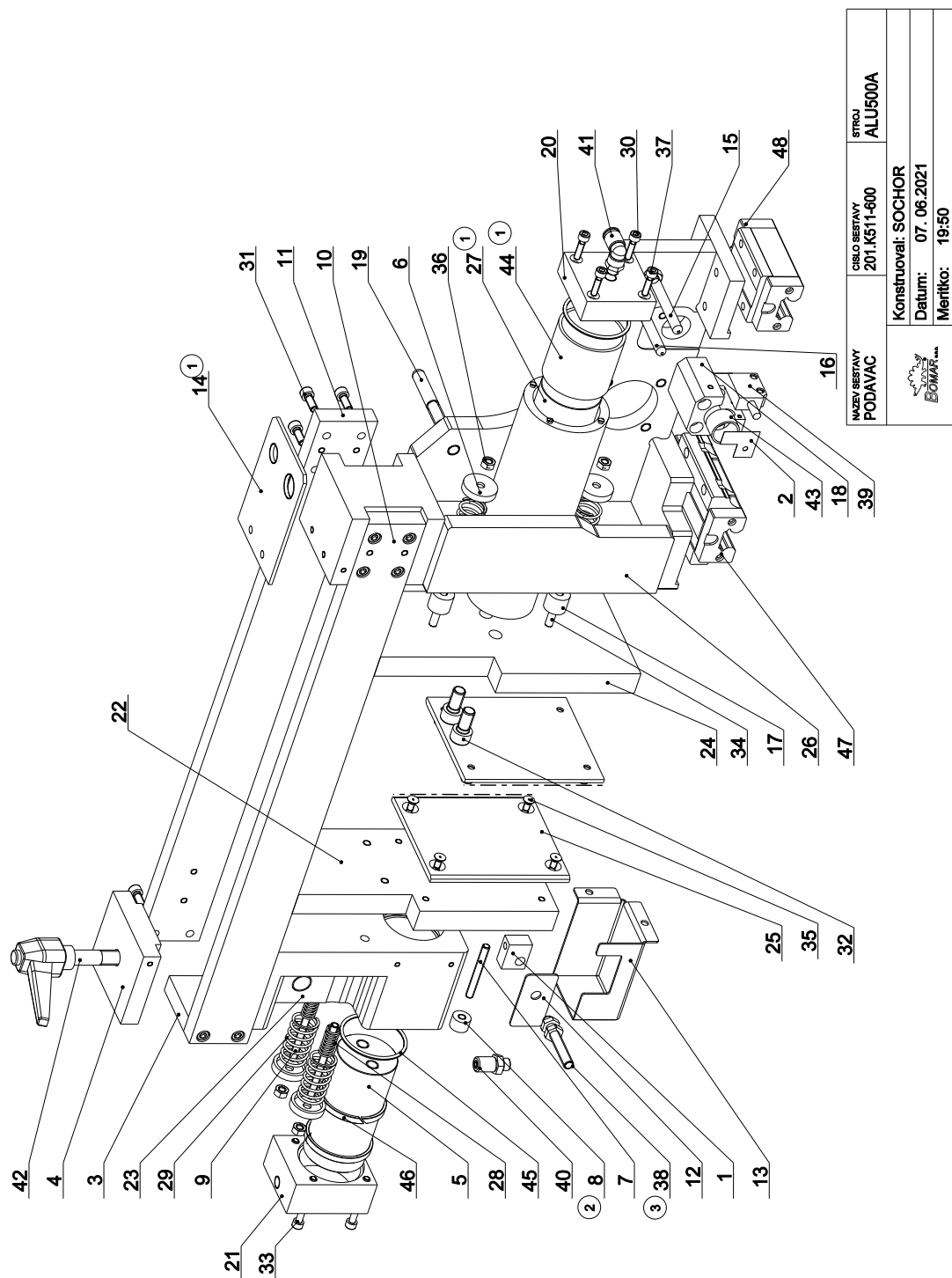
8.27. Kusovník / Piece list / Stückliste - Pohon / Drive / Antrieb

Číslo sestavy 201.K505-500		Ver. 0	Název sestavy POHON/DRIVE /ANTRIEB			
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks	
1	30.K505-505	0	SROUB / SCREW / SCHRAUBE	KUL. S. 20x20	1	
2	30.K511-007	0	REMENCE / PULLEY / RIEMENSCHIEBE	44-50M-15 HTD	1	
3	30.K511-008	0	REMENCE / PULLEY / RIEMENSCHIEBE	18-50M-15F HTD	1	
4	30.K511-011	0	PRUBA / FLANGE / FLANSCH	TYC 80	1	
5	30.K511-021	0	KROUZEK DISTANČNÍ / SPACER RING / DISTANZRING	TRUBKA 20x4	1	
6	30.K511-409	0	TYC / POLE / STANGE	d 20	1	
7	30.K511-711	2	KONZOLA / BRACKET / KONSOLE		1	
8	30.K511-712	2	KRYT / COVER / ABDECKUNG	P1,5x233	1	
9	90.001.25.007	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSHSCRAUBE	M6x10	2	
10	90.151.50.008	0	PODLOŽKA VELKOP. / LARGE WASHER / GROßFLÄCHENSCHIEBE	PODLOŽKA 5	2	
11	91.001.081	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	0,37 kW 4P B5	1	
12	91.173.010	3	SPINAC KONČ.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE		1	
13	95.001.015	0	LOŽISKO / BEARING / LAGER	602-2R3	1	
14	95.810.022	0	PERO TESNE / FEATHER KEY / PASSFEDER	PERO 50x18	1	
15	99.024.025	2	REMEN OZUBENÝ / COG BELT / ZAHNREIEMEN	5M	1	
16	99.212.002	0	MATICE / NUT / MUTTER	kuličková d38 m	1	
17	99.213.001	0	POUZDRO KULČKOVÉ / BALL HOUSING / KUGELHÜLSE	pouzdro kuličkové	1	
18	99.213.002	0	POUZDRO KULČKOVÉ / BALL HOUSING / KUGELHÜLSE	BK17	1	

- PRIDANA SOUCAST 99.213.001 218/ZM306 27.9.2017 SOCHOR
- ZRUS.KONZOLA 30.K511-411 A NAHR.30.K511-711,ZRUS.KRYT 30.K511-412 A NAHR.30.K511-712,ZRUS.REMIENEN 99.024.026 A NAHR.99.024.025. 161/ZM219 12.5.2020 SLEZACKOVA
- VYMEANA SNIMACE 91.173.009 ZA 91.173.010. 014/ZM030 21.1.2021 NESPUREK

Číslo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.28. Podavač / Feeder / Vorschub

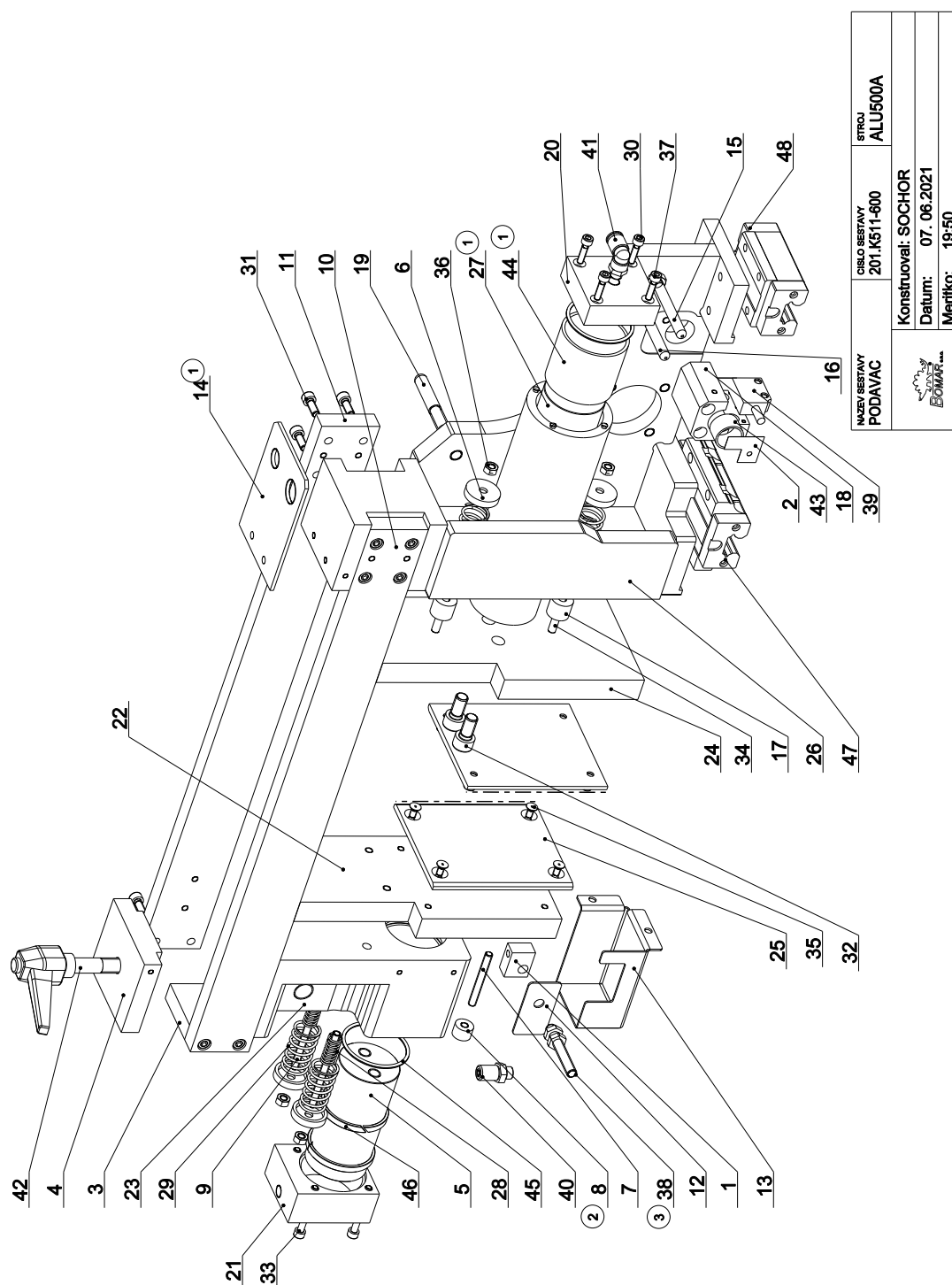


8.29. Kusovník / Piece list / Stückliste - Podavač / Feeder / Vorschub

Cílo Sestavy 201.K511-600		Ver. 0	Název sestavy PODAVAC/FEEDER/VORSCHUB			
Poz.	Objednáci cílo	Ver.	Název položky	Rozměr	Ks	
1	30.2114-001	0	DRZAK / HOLDER / HALTER		1	
2	30.2911-030	0	STERAC / WIPER / ABSTREIFER	P 0.2-26.5	2	
3	30.K203-005	0	SPOJKA / CLUTCH / KUPPLUNG	HR 50x15	1	
4	30.K203-006	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	HR 70x20	1	
5	30.K203-008	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 50h6	1	
6	30.K203-014	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	d26	4	
7	30.K203-016	0	TYC ZAVITOVA / THREADED POLE / GEWINDESTANGE	TYC ZAVIT. M6	1	
8	30.K203-017	2	KROUZEK / RING / RING	d 15	1	
9	30.K203-029	0	TYC ZAVITOVA / THREADED POLE / GEWINDESTANGE	M6	2	
10	30.K503-004	0	LISTA VODICI / GUIDING SLAT / FÜHRUNGSLEISTE	TYC 50x15	1	
11	30.K503-026	0	LISTA VODICI / GUIDING SLAT / FÜHRUNGSLEISTE	HR 50x15	1	
12	30.K503-054	0	KRYT / COVER / ABDECKUNG	P1.5x28	1	
13	30.K503-055	0	KRYT / COVER / ABDECKUNG	P1.5x129	1	
14	30.K503-527	1	DRZAK / HOLDER / HALTER	P 3x80	1	
15	30.K511-023	0	DORAZ / STOP PIECE / ANSCHLAG	d 8	1	
16	30.K511-024	0	DORAZ / STOP PIECE / ANSCHLAG	TYC 8	1	
17	30.K511-025	0	DISTANC / SPACER / ABSTANDSTÜCK	D 18	2	
18	30.K511-110	2	DRZAK / HOLDER / HALTER	HR 50x50	1	
19	30.K511-413	0	DORAZ / STOP PIECE / ANSCHLAG	d 10	1	
20	30.K511-416	0	VÍKO / COVER / DECKEL	HR 60x20	1	
21	30.K511-509	0	VÍKO / COVER / DECKEL	HR 80x30	1	
22	30.K511-602	0	CELIST POHYBLIVÁ / MOVING JAW / BEWEGLICHE BACKE	HR 100x20	1	
23	30.K511-604	0	DRZAK / HOLDER / HALTER	ODLITEK	1	
24	30.K511-614	0	CELIST / JAW / BACKE	HR 100x20	1	
25	30.K511-615	0	LISTA CELISTI / JAW SLAT / BACKENLEISTE	P5x100	2	
26	30.K511-701	1	SLOUP PODAVACE / FEEDER POLE / VORSCHUBSÄULE		1	
27	30.K511-705	2	PISTNICE / PISTON ROD / KOLBENSTANGE	d 50h6	1	
28	31.3516-001	0	PRUZINA / SPRING / FEDER	1.25x10x34x9	2	
29	31.K203-015	0	PRUZINA / SPRING / FEDER	2x22x40x(4.5+2)	4	
30	90.001.25.010	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5X20	4	
31	90.001.25.017	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X18	12	
32	90.001.25.046	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M10X20	4	
33	90.001.25.108	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5X45	4	
34	90.007.02.002	0	SROUB ZAVRTNÝ / STUD SCREW / STIFTSCHRAUBE	d6	2	

Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednáci cílo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.30. Podavač / Feeder / Vorschub



35	90.011.27.003		0	SROUB ZAPUSTNÝ / COUNTERSUNK SCREW / SENKSCRAUBE		SROUB M5X10	8
36	90.100.55.004		0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN		MATICE_M6	4
37	90.100.55.005		0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN		MATICE_M8	2
38	91.272.069	(3)	0	* / null / null		IME08-02BPSVTOSS12	1
39	91.270.011	(2)	0	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR		LMIX2-028-08.0-1-00	1
40	93.005.001		0	SROUBENI PRIME / TUBE FITTING - STRAIGHT / GERADE VERSCHRAUBLUNG		G 1/8-8/4	1
41	93.008.017		0	SROUBENI UHL.NATAC. KOVOVE / null / null		50116 G1/8" 8tr	1
42	94.008.012		0	PAKA MONTAZNI / ASSEMBLY LEVER / MONTAGEHEBEL		M12x70	1
43	95.700.003		0	POUZDRO / SLEEVE / BÜCHSE		20X15	1
44	95.720.002	(1)	0	POUZDRO / SLEEVE / BÜCHSE		50x50x55	2
45	96.002.050		0	O-KROUZEK DYNAMICKY / O-RING DYNAMIC / O-RING DYNAMISCH		50x2.5	2
46	96.084.015		0	KROUZEK VODICI / GUIDE RING / FÜHRUNGSRING		GR6500500-T47	2
47	98.201.057		0	VOZIK LINEARNHO VEDEDI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN		MSA2LESSFIN	1
48	99.201.066		0	VOZIK LINEARNHO VEDEDI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN		MSA2S	1

11.ZRUS.SLOUP 30.K511-601 A NAHR.30.K511-701,ZRUS.PISTNICE 30.K211-005 A NAHR.30.K511-705.ZRUS.2xKROUZEK 96.084.015

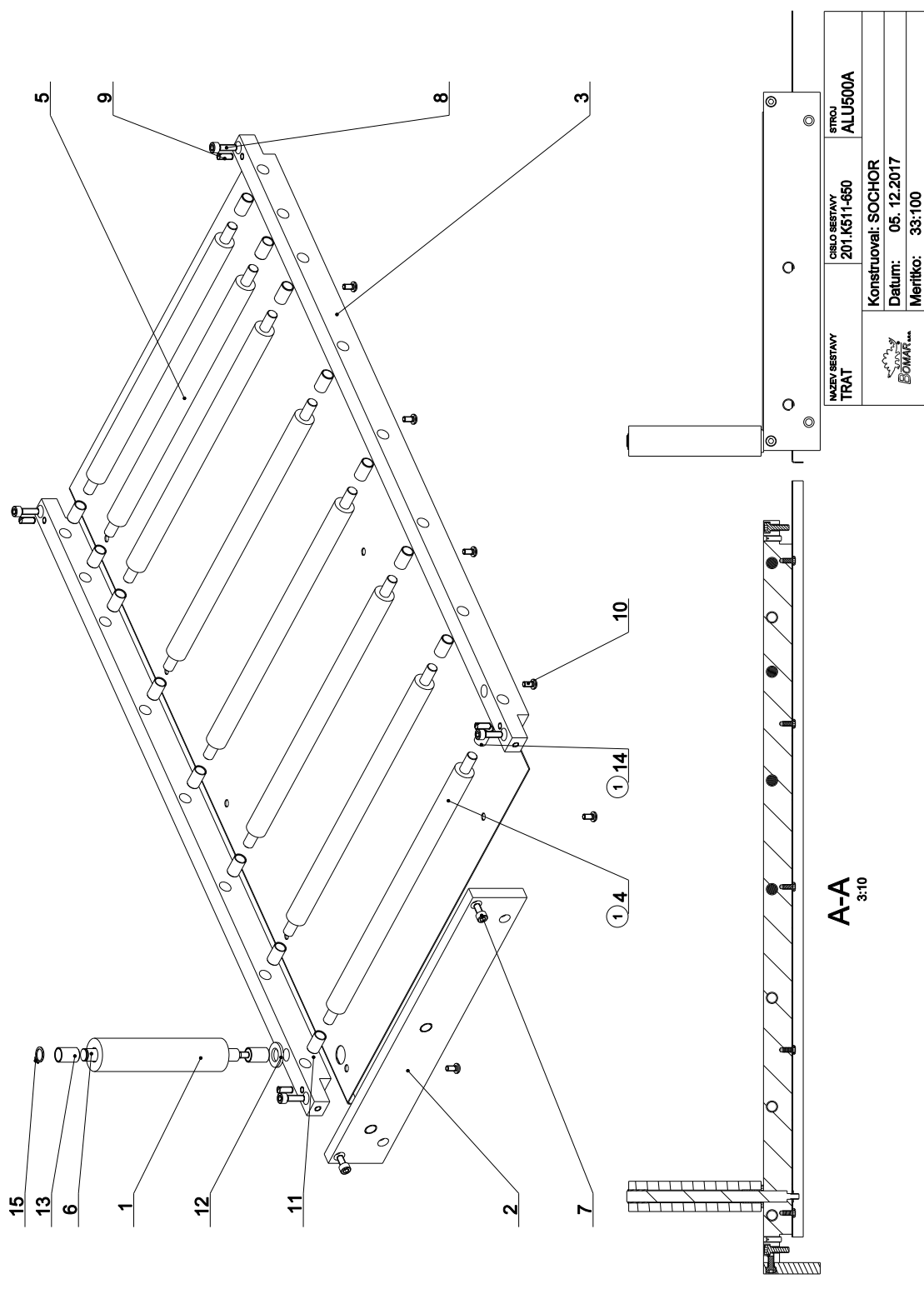
A NAHR.2xPOUZDRO 95.720.002. 161/ZM219 12.5.2020 SLEZACKOVA

2.DOPLNEN KROUZEK 30.203-017, VYMENA SNIMACE 91.172.001 ZA 91.172.033, VYMENA SNIMACE 91.270.006 ZA 91.270.011.

306/ZM025 20.1.2021 NESPUREK

3.ZRUSEN SNIMAC 91.172.033 A NAHR.91.172.069. 108/ZM178 7.6.2021 SLEZACKOVA

8.32. Trať / Track / Bahn



8.33. Kusovník / Piece list / Stückliste - Trať / Track / Bahn

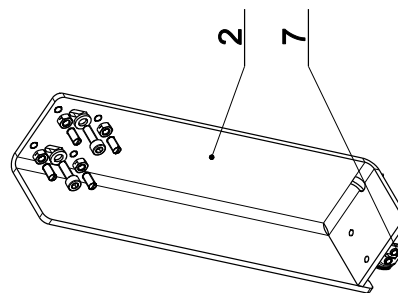
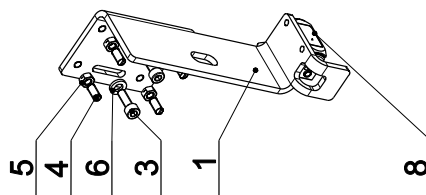
Cílo Sestavy 201.K511-650		Ver. 0	Nazev sestavy TRAT/TRACK/BAHN			
Poz.	Objednací číslo	Ver.	Nazev položky	Rozmer	Ks	
1	30.K211-202 (1)	0	VALECEK / ROLLER / ROLLE	d32	1	
2	30.K511-553	0	LISTA / SLAT / LEISTE	HR 60x12	1	
3	30.K511-651	0	LISTA / SLAT / LEISTE	HR 30x20	2	
4	30.K511-652	0	VALECEK / ROLLER / ROLLE	TYC 20	8	
5	30.K511-653	0	PLECH / SHEET METAL / BLECH	P 1x488	1	
6	30.K511-654	0	CEP / PIVOT / BOLZEN	D 12	1	
7	90.001.25.016	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6x12	2	
8	90.001.25.018	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6x20	4	
9	90.002.2D.008	0	SROUB STAVECI / SET SCREW / STELLSCHRAUBE	SROUB M6x16	4	
10	90.013.27.003	0	SROUB PULKULATY / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M6x10	10	
11	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 6,4	1	
12	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	1	
13	95.700.036	0	POUZDRO / SLEEVE / BÜCHSE	KU 12x20	2	
14	95.710.064 (1)	0	POUZDRO / SLEEVE / BÜCHSE		16	
15	95.800.004	0	KROUZEK POJIST.VNEJŠI / EXTERNAL RETAINING RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 12	1	

1. PRID. 1xVALECEK 30.K211-202 A 2xPOUZDRO 95.710.064. 191/ZM336 19.9.2018 SZABARI

Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position);
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

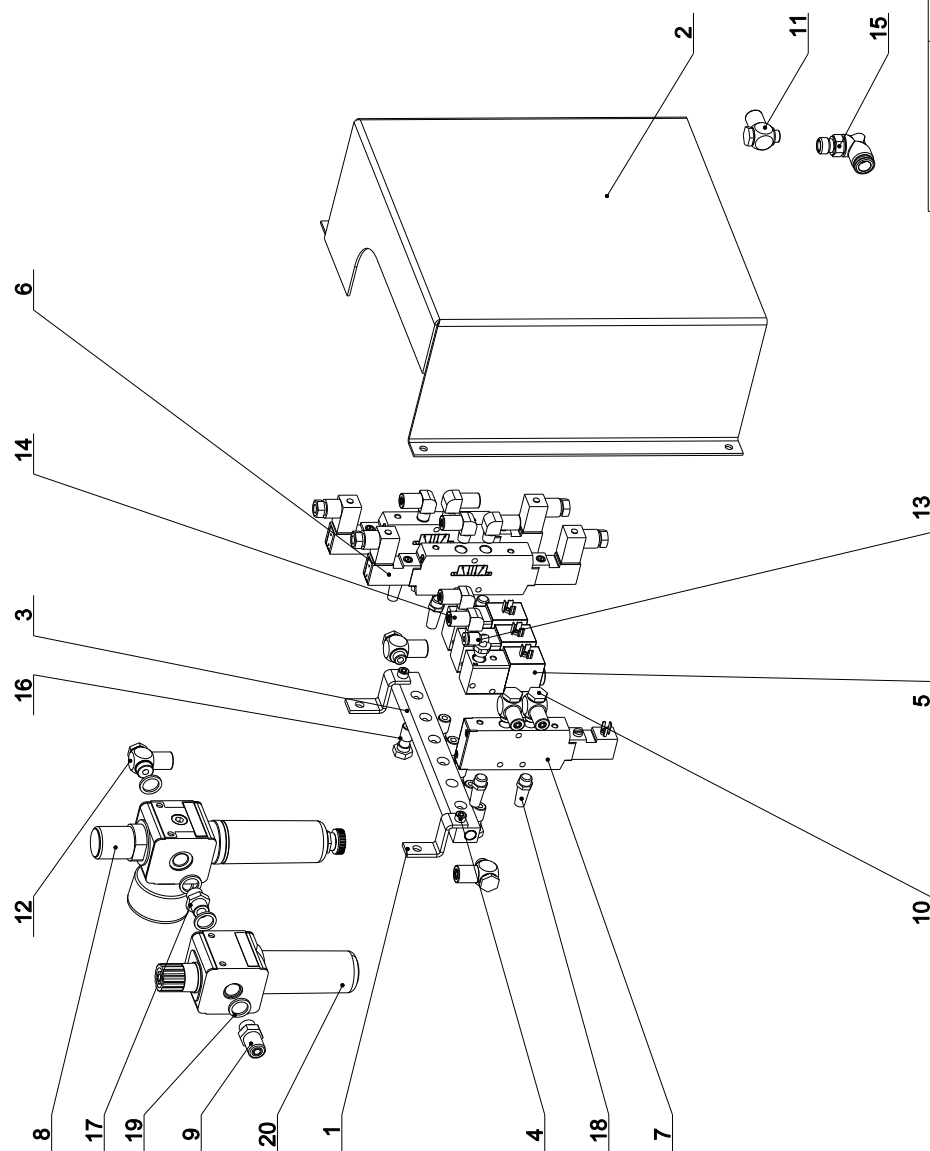
8.34. Závora optická / Optical gate / Lichtschranke

Cílo Sestavy 201.K514-250		Ver. 0	Nazev sestavy ZAVORA OPTICKA/OPTICAL GATE/LICHTSCHRANKE		
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks
1	30.K514-251	0	DRŽAK / HOLDER / HALTER	P4x128	1
2	30.K514-252	0	DRŽAK / HOLDER / HALTER	P5x109	1
3	90.001.25.009	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5x16	4
4	90.002.2D.006	0	SROUB STAVEČI / SET SCREW / STELLSCHRAUBE	SROUB M5x12	8
5	90.100.55.003	0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _M5	8
6	90.163.00.008	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	D 5,8/10,8	4
7	91.401.030	0	ZAVORA OPTICKA / OPTICAL GATE / LICHTSCHRANKE	06E701	1
8	91.401.031	0	ZAVORA OPTICKA / OPTICAL GATE / LICHTSCHRANKE	06S701	1



Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.35. Pneumatika / Pneumatics / Pneumatik



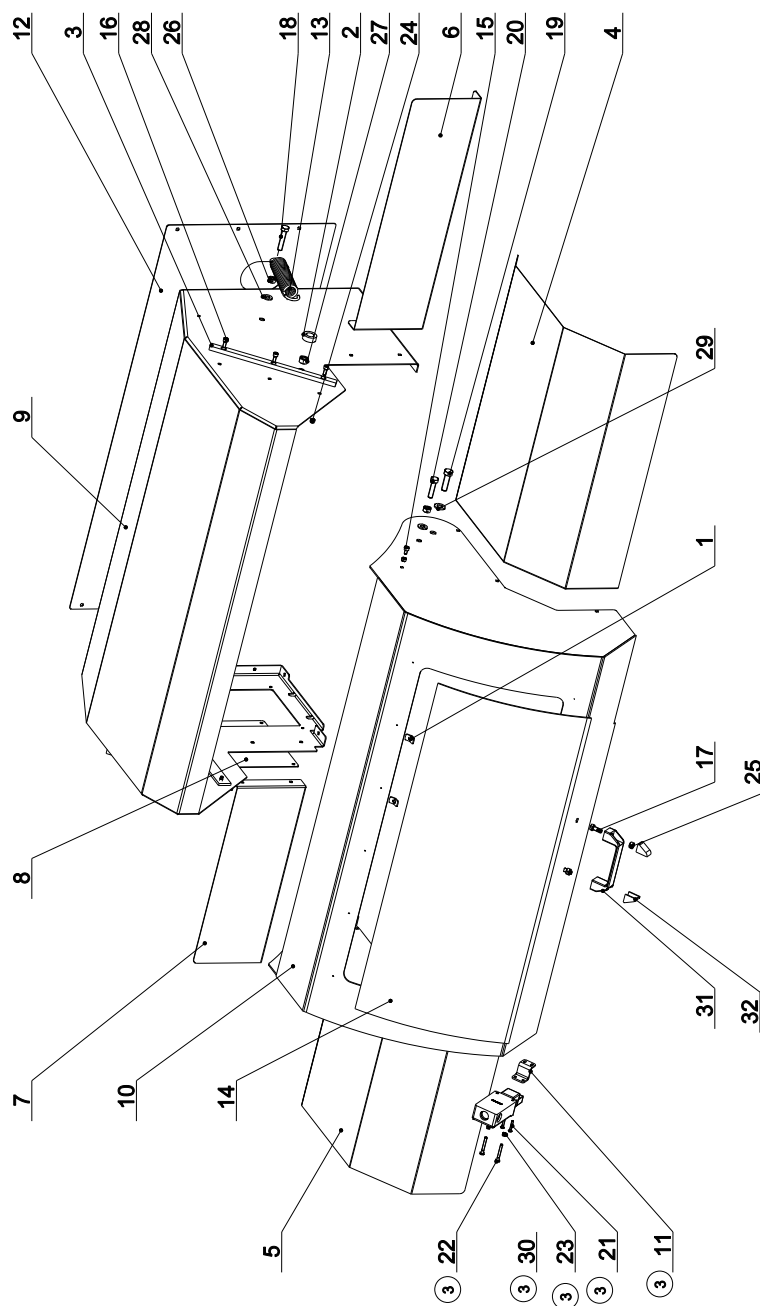
NAZEV ŠESTVY PNEUMATIKA	ČÍSLO ŠESTVY 201.K516-500	STROJ AL500A
Konstruoval: HLADIL		
Datum: 12. 04.2017		
Měřtko: 33:100		

8.36. Kusovník / Piece list / Stückliste - Pneumatika / Pneumatics / Pneumatik

Císlo Sestavy 201.K516-500		Ver. 0	Nazev sestavy PNEUMATIKA/PNEUMATICS/PNEUMATIK		
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks
1	30.K216-001	0	DRŽÁK / HOLDER / HALTER	P 3 x 15	2
2	30.K516-501	0	KRYT / COVER / ABDECKUNG	P2x400	1
3	30.K516-502	0	KOSTKA ROZVÁDEČI / DISTRIBUTION CUBE / VERTEILUNGSWÜRFEL	HR 20x15	1
4	90.001.25.010	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M5x20	2
5	93.001.008	0	VENTIL MAGNETICKÝ / MAGNETIC VALVE / MAGNETVENTIL	3/2, 24V/DC	3
6	93.001.012	0	VENTIL MAGNETICKÝ / MAGNETIC VALVE / MAGNETVENTIL	G1/8	2
7	93.002.044	0	VENTIL REGULACNÍ / REGULATING VALVE / REGELVENTIL		1
8	93.003.001	0	REGULATOR / REGULATOR / REGLER		1
9	93.005.003	0	SROUBENÍ PRÍME / TUBE FITTING - STRAIGHT / GERADE VERSCHRAUBUNG	G1/4-3/8	1
10	93.007.001	0	SROUBENÍ UHL.NATAC. POLYAMID / null / null	G1/8-3/4	2
11	93.007.002	0	SROUBENÍ UHL.NATAC. POLYAMID / null / null	G1/8-3/8	3
12	93.007.004	0	SROUBENÍ UHL.NATAC. POLYAMID / null / null	G1/8-3/8	1
13	93.007.005	0	SROUBENÍ UHL.NATAC. POLYAMID / null / null	1/8" x 4	1
14	93.008.001	0	SROUBENÍ UHL. PEVNÉ / null / null	R1/8"-3/4	6
15	93.009.005	0	SROUBENÍ UHL.NATAC. KOVOVÉ / null / null	50115 10 - 3/8"	1
16	93.010.001	0	SROUB DUTY / HOLLOW BOLT / HOHLSCHRAUBE	DUTY	8
17	93.012.003	0	SROUBENÍ PRÍME / TUBE FITTING - STRAIGHT / GERADE VERSCHRAUBUNG	G1/4-1/4	1
18	93.014.003	0	TLUMIC / DAMPER / DÄMPFER	G 1/8	6
19	93.015.002	0	TESNENÍ / SEALING / DICHTUNG		4
20	93.018.001	0	OLEJNÍČKA / null / null	MAZNICE VZD.	1

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.37. Kryt / Cover / Abdeckung

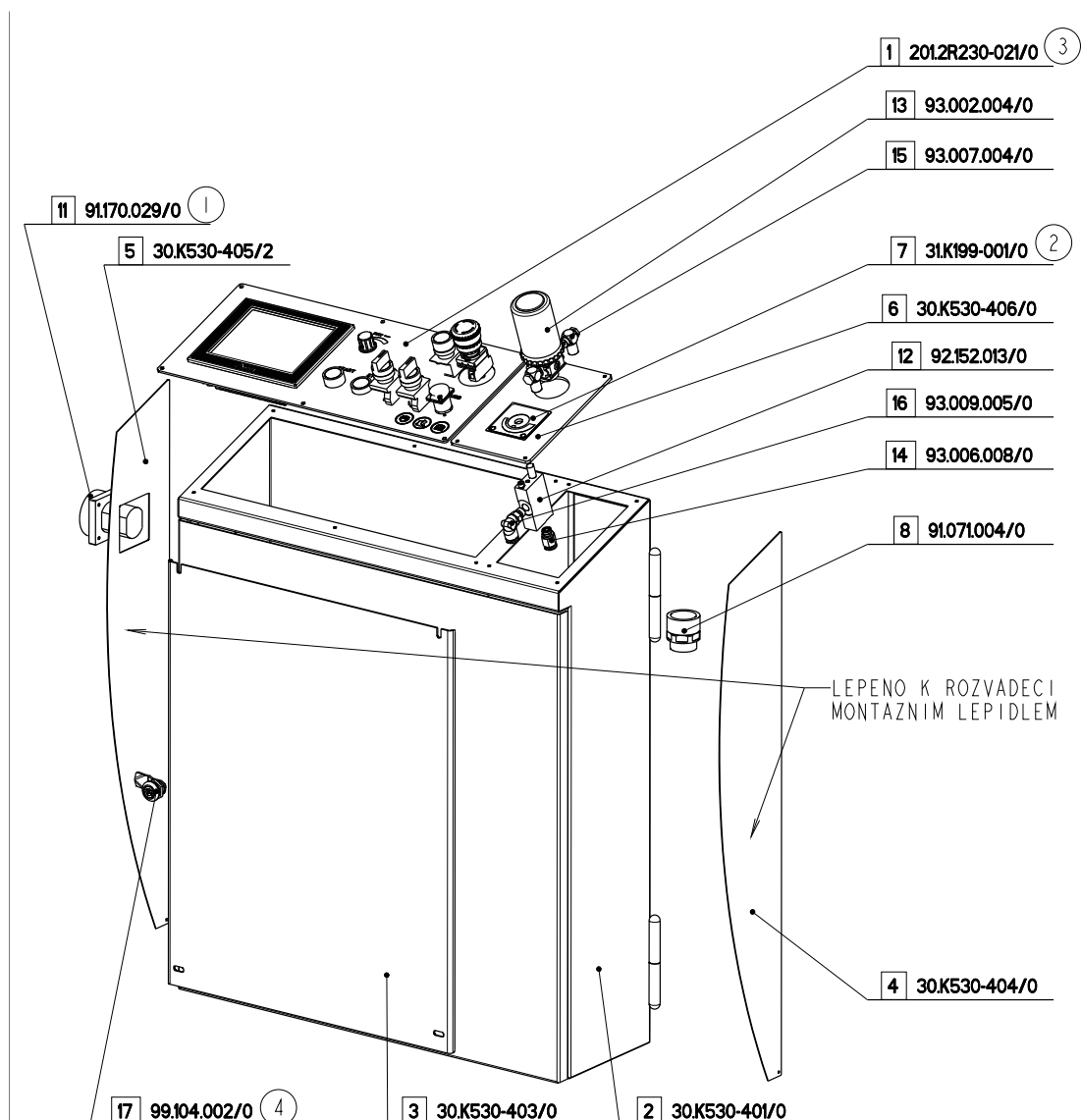


NAZEV/ NÁZEVY KRYT	ČÍSLO NÁZEVY 201.K518-650	STŘEŠ AL500A
Konstruoval: HLADIL		
Datum: 08. 10.2021		
Měřtko: 3:25		

8.38. Kusovník / Piece list / Stückliste - Kryt / Cover / Abdeckung

Cílo Sestavy 201.K518-650		Ver. 0	Nazev sestavy KRYT/COVER/ABDECKUNG			
Poz.	Objednáci cílo	Ver.	Nazev položky	Rozměr	Ks	
1	30.E951-020	0	PLECH / SHEET METAL / BLECH	P 2x14	12	
2	30.K301-705	0	KROUZEK DISTANČNÍ / SPACER RING / DISTANZRING	D 30	2	
3	30.K518-556	0	VEDEŇ / GUIDE / FÜHRUNG	HR 15x10	2	
4	30.K518-557	0	KRYT / COVER / ABDECKUNG	P1x614	1	
5	30.K518-558	0	KRYT / COVER / ABDECKUNG	P1x478	1	
6	30.K518-559	0	KRYT / COVER / ABDECKUNG	P1,5x207	1	
7	30.K518-560	0	KRYT / COVER / ABDECKUNG	P1,5x197	1	
8	30.K518-562	0	KRYT / COVER / ABDECKUNG	P1,5x200	1	
9	30.K518-651	0	KRYT / COVER / ABDECKUNG		1	
10	30.K518-652	0	DVERE / DOOR / TÜR		1	
11	30.K518-653	3	DRŽAK / HOLDER / HALTER	P 3x30	1	
12	30.K518-653	0	KRYT / COVER / ABDECKUNG	P1,5x417	1	
13	31.LK04-016	0	PRUŽINA / SPRING / FEDER	d 5	2	
14	31.UTS99-003	0	SKLO ORGANICKE / PLEXIGLASS / PLEXIGLAS	3x352	1	
15	90.001.25.015	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X10	2	
16	90.001.25.017	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6X16	6	
17	90.005.55.015	0	SROUB 6HRANNY / HEX HEAD SCREW / SECHSKANTSCHRAUBE	SROUB M6X20	2	
18	90.005.55.028	0	SROUB 6HRANNY / HEX HEAD SCREW / SECHSKANTSCHRAUBE	SROUB M10X50	2	
19	90.005.55.034	0	SROUB 6HRANNY / HEX HEAD SCREW / SECHSKANTSCHRAUBE	SROUB M12X40	2	
20	90.005.55.070	0	SROUB 6HRANNY / HEX HEAD SCREW / SECHSKANTSCHRAUBE	SROUB M10X40	2	
21	90.013.9Z.103	3	SROUB PULKULATY / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M4x25	2	
22	90.013.9Z.109	3	SROUB PULKULATY / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M5X40	2	
23	90.100.55.003	3	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M5	2	
24	90.100.55.004	0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M6	8	
25	90.100.55.005	0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M8	2	
26	90.100.55.006	0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M10	8	
27	90.100.55.007	0	MATICE PRESNA ZINEK / PRECISION NUT - ZN / PRÄZISE MUTTER - ZN	MATICE _ M12	4	
28	90.150.50.006	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	PODLOZKA 10,5	6	
29	90.150.50.007	3	PODLOZKA / WASHER / UNTERLEGSCHIBE	PODLOZKA 13	2	
30	91.173.064	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		1	
31	94.012.001	0	RUKOJET / HANDLE / GRIFF		1	
32	94.012.002	0	KRYT / COVER / ABDECKUNG		2	
1.PRID. 3xSROUB M4x40 90.013.9Z.111, 171/ZM311 6.9.2018 SZABARI 2.PRID. 1x91.173.039, 1x30.K503-626; ZMENA POLOHY 91.173.040; 148/ZM205 13.5.2019 SCERBA 3.ZRUS. ZAMEK 91.173.039, ZRUS. DRŽAK 30.K503-626 A NAHR. 30.K518-653, ZRUS. SPINAC KONCOVY 91.173.040 A NAHR. 91.173.064, ZRUS. 3x SROUB 90.013.9Z.111, PRID. 2x SROUB 90.013.9Z.109, PRID. 2x SROUB 90.013.9Z.103, PRID. 2x MATICE 90.100.55.003, 271/ZM370 8.10.2021 KOVAR						
Cílo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position; Objednáci cílo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung						

8.39. Rozvaděč / Distributor / Verteiler



NÁZEV SESTAVY ROZVADEC	Kat: ALU 500A-	ČÍSLO SESTAVY 201.K530-400	Revize 4
		List/Listě: 1/2	4.2
	Konstruoval:	HLADIL	
	Datum:	12.09.2022	
	Měřítko:	7:50	

8.40. Kusovník / Piece list / Stückliste - Rozvaděč / Distributor / Verteiler

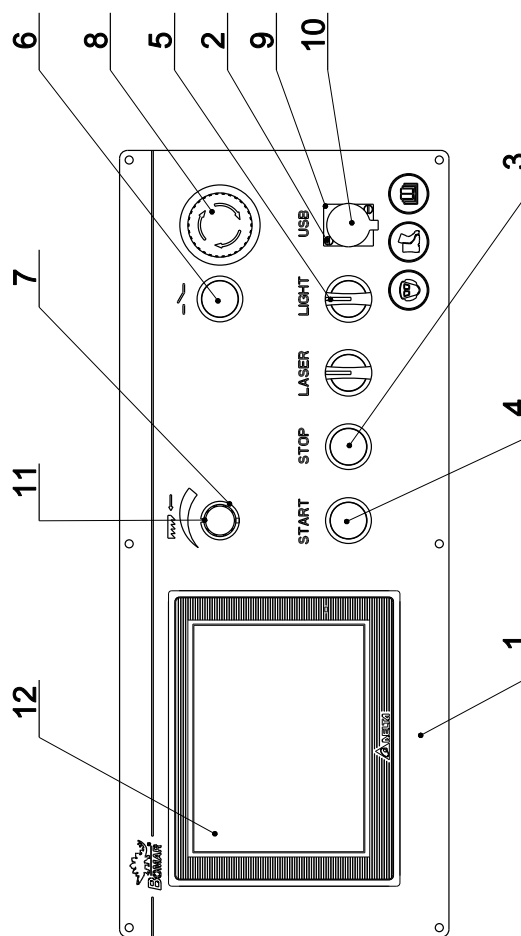
NAZEV SESTAVY		ČÍSLO SESTAVY		REVIZE			
ROZVADEC		201.K530-400		4			
Poz.	Objednáč. číslo	Verze	Název CZ	Name EN	Name DE	Polotovár	k s / m
1	201.2R230-021	3	PANEL ELEKTRO	ELECTRO PANEL	PANEL		1
2	30.K530-401	0	ROZVADEC	DISTRIBUTOR	VERTEILER		1
3	30.K530-403	0	DESKA ELEKTRO	ELECTRICAL BOX MOUNTING PLATE	ELEKTROMONTAGEPLATTE	P2 - 49x610	1
4	30.K530-404	0	PLECH	SHEET METAL	BLECH	P1 - 14x786	1
5	30.K530-405	2	PLECH	SHEET METAL	BLECH	P1 - 14x786	1
6	30.K530-406	0	PLECH	SHEET METAL	BLECH	P4 - 133x205	1
7	31.K199-001	2	STITEK	LABEL	SCHILD	ALU 400 - šřítek regulace 66x66	1
8	91.071.004	0	VYVODKA HADICE	OUTLET FOR HOSE	SCHLAUCHTÜLE	MR-83601062 MSV-PG 29 černá	1
11	91.170.029	1	VYPINAC	SWITCH	SCHALTER	SAP16/03-M2 16A 6AX6 vypínač 16A, se zámkem, základna 64x64mm	1
12	92.152.013	0	VENTIL SKRTICI	CHOKE VALVE	DROSSELVENTIL	VS01-04/R3,5-06S 531-0129, 22736800	1
13	93.002.004	0	VENTIL REGULACNI	REGULATING VALVE	REGELVENTIL	0821300667	1
14	93.006.008	0	SROUBENI PRIME	TUBE FITTING - STRAIGHT	GERADE VERSCHRAUBUNG	50020 1/4" - 10 1/4" - 10 Trubka	1
15	93.007.004	0	SROUBENI UHL.NATAC. POLYAMID	null	null	1823391105 1823391105, 1/4" - 8/6	2
16	93.009.005	0	SROUBENI UHL.NATAC. KOVOVE	null	null	50116 G1/4" - 10 1/4" - 10 Trubka	1
17	99.104.002	4	ZAMEK	LOCK	SCHLOSS	zámek na krytí ramene zámeč + klíčka	1

1. PRIDANO 91.141.110, 91.141.111; 91.170.029; 030/ZM040 31.1.2019 SCERBA
2. ZRUSENA SAMOLEPKA 31.0699-004 NAHR. 31.K199-001. 256/ZM 321.05.10.2020 VRBSKY
3. ZRUS. KONEKTOR 91.141.110 A 91.141.111; ZRUS. PANEL 201.ER2530-310 A NAHR. 201.2R230-021. 031/ZM208 9.6.2022 JAGNESAK
4. ZRUS. ZAMEK 91.990.001 A NAHR. 99.104.002. 044/ZM081 7.3.2024 HALAS

Číslo Sestavy/Number of assembly/Nummer der Baugruppe: Ver.-Verze/Version/Version; Název sestavy/Assembly name/Name der Baugruppe: Poz.-Pozice/Position/Position; Objednáč. číslo/Order number/Bestellnummer;
Polotovár/Semiprodukt/Halbfabrikat; Vstupní materiál/Input material/Eingangsmaterial;

8.41. Panel elektro / Electro panel / Panel

Císlo Sestavy 201.2R230-021		Ver.	Nazev sestavy PANEL ELEKTRO/ELECTRO PANEL/PANEL	
Poz.	Objednací číslo	Ver.	Nazev položky	Ks
1	31.2R230-022	0	PANEL / PANEL / PANEL	1
2	90.006.50.007	0	SROUB ZAPUSTNÝ / COUNTERSUNK SCREW / SENKSCHRAUBE	2
3	91.060.013	0	HLAVICE / HEAD / KOPF	1
4	91.060.019	0	SPINAC / SWITCH / SCHALTER	1
5	91.060.025	0	PREPINAC / SWITCH / UMSCHALTER	2
6	91.060.062	0	SPINAC / SWITCH / SCHALTER	1
7	91.060.063	0	HLAVICE / HEAD / KOPF	1
8	91.060.084	0	HLAVICE TOTAL STOP / TASTE TOTAL STOP	1
9	91.141.110	0	KONEKTOR / CONNECTOR / STECKVERBINDER	1
10	91.141.111	0	KONEKTOR / CONNECTOR / STECKVERBINDER	1
11	91.283.015	0	POTENCIOMETR / POTENTIOMETER / POTENTIOMETER	1
12	91.995.932	0	PANEL / PANEL / PANEL	1

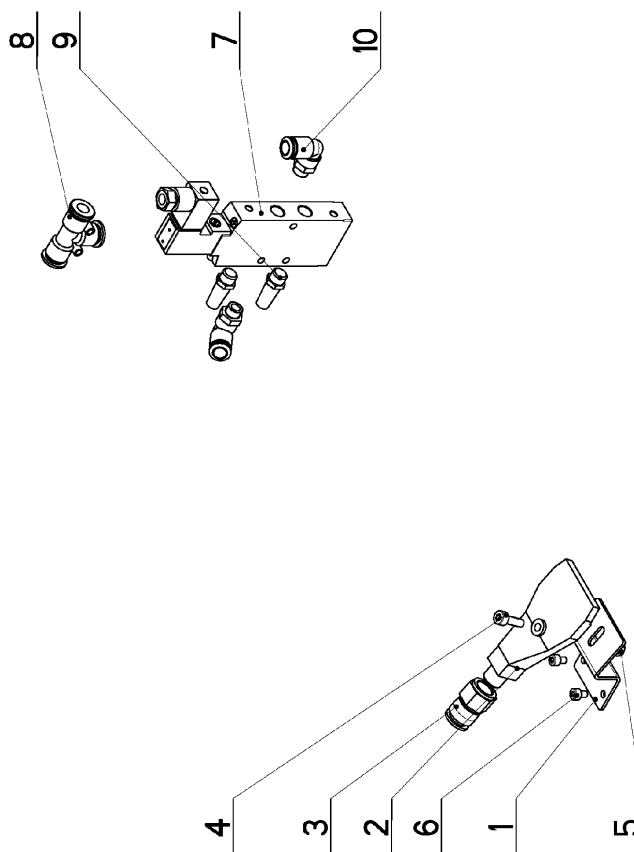


Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz./Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

8.42. Volitelné příslušenství / Optionales Zubehör / Optional accessories

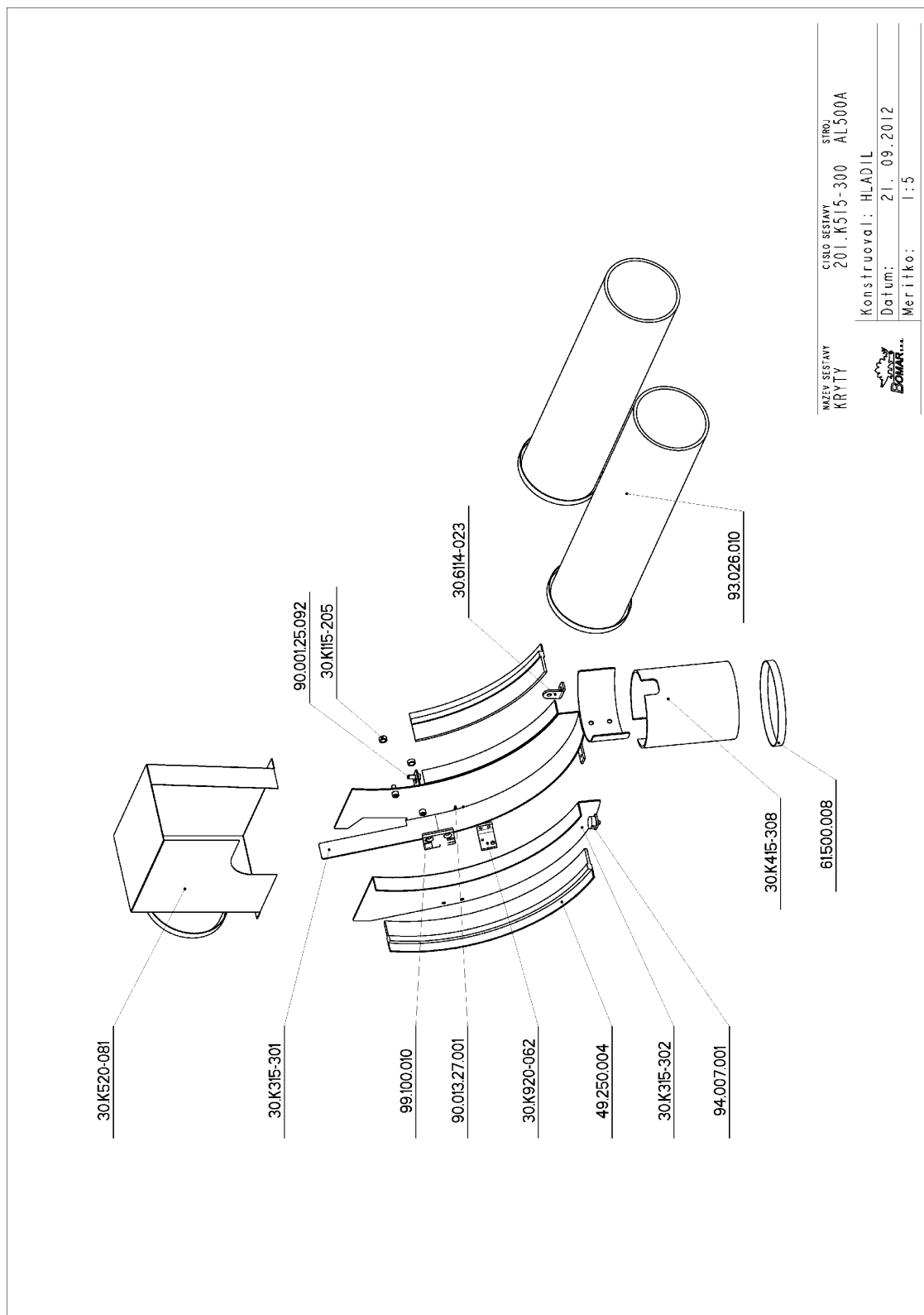
8.42.1. Odsávání / Exhausting system / Absaugung

Císlo Sestavy 201. k 520-600		Ver. 0	Název sestavy ODSAVNÍ / EXHAUSTING SYSTEM / ABSAUGUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.K520-601	0	DRŽÁK / PLATE / BLECH	P 2x40	1
2	93.025.002	0	TRYSKA / NOZZLE / DÜSE	AAB727-1/4-11	1
3	93.012.012		PNEUMATIKA / PNEUMATICS / PNEUMATIK	50030 1/4"-8	1
4	90.001.25.009	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X16	1
5	90.100.55.003	0	MATICE / NUT / MUTTER	MATICE - M5	1
6	90.001.55.086	0	ŠROUB IMBUS ZN / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4X6	2
7	93.002.008	0	VENTIL / VALVE / VENTIL		1
8	93.011.001	0	PROPOJKA / CONNECTION / VERBINDUNGSTÜCK	8	1
9	93.014.003	0	TLUMIC / DAMPER / DÄMPFER	G 1/8	2
10	93.009.017	0	ŠROUBENÍ UHLOVÉ / ANGLE BOLTING / WINKELVERSCHRAUBUNG	50116 G1/8" 8tr	2



Cislo sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Pos./Position/Position);
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Size/Abmessung

8.42.2. Kryty / Covers / Abdeckungen



8.42.3. Kusovník / Piece list / Stückliste - Kryty / Covers / Abdeckungen

Císlo Sestavy 201.K515-300	Ver. 0	Název sestavy KRYTY/COVERS/ABDECKUNGEN			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6114-023	0	DRŽAK / HOLDER / HALTER	P 3x20	1
2	30.K115-205	0	DISTANC / SPACER / ABSTANDSSTÜCK	TR 12x2	2
3	30.K315-301	0	KRYT / COVER / ABDECKUNG		1
4	30.K315-302	0	DVERE / DOOR / TÜR		1
5	30.K415-308	1	TRUBKA / TUBE / ROHR	HT 125	1
6	30.K520-081	0	KRYT / COVER / ABDECKUNG		1
7	30.K920-062	0	DRŽAK / HOLDER / HALTER	P 4x25	1
8	49.250.004	0	KARTAC / BRUSH / BÜRSTE	FBL6000-K5	2
9	61.500.008	0	PASKA STAHOVACI / null / null	TORRO 110-130	4
10	90.001.25.092	0	SROUB IMBUS / HEXAGON SOCKET SCREW / IMBUSSCHRAUBE	M6x14	3
11	90.013.27.001	0	SROUB PULKULATY / BUTTON HEAD SCREW / RUNDKOPFSCHRAUBE	M4x8	2
12	93.026.010	0	HADICE / HOSE / SCHLAUCH	DN 125 PU-M	2
13	94.007.001	0	SROUB PLASTOVY / PLASTIC BOLT / KUNSTSTOFFSCHRAUBE	M5x10	1
14	99.100.010	0	PANT / HINGE / TÜRBAND		1

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Pos.)/Position/Position; Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung