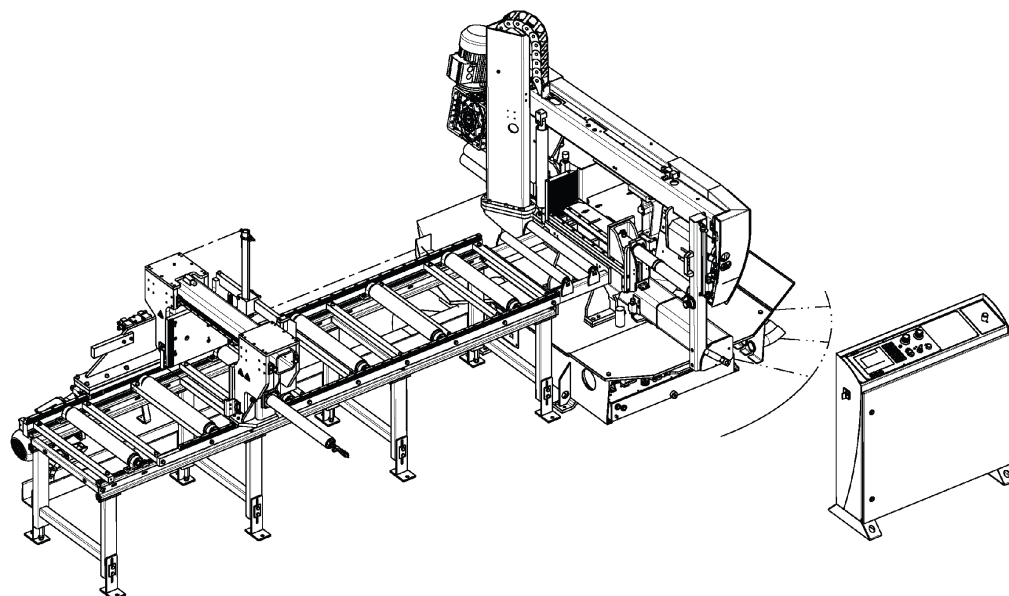




Individual 520.360 GANC LS2300

Operating instructions

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

Service and information

Your BOMAR dealer:

Direct BOMAR contact:

BOMAR spol. s r.o.
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www: <http://www.bomar.cz>

We are available:

Mondays to Fridays

7⁰⁰ – 16⁰⁰

Version:

1.04/August 2022
rev. 1

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

EC 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: Band Saw
Type : Individual 520.360 GANC LS 2300
Serial number: 011 – 100 000
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 steel, stainless steel, non-ferrous metals and plastics
Description: Stand, table, cutting unit with the saw band and drive, clamping device, cooling system, el. switch board with control panel, feeder, track of feeder
Pneumatic ☒ NO ☐ YES ☐ Hydraulic ☒ NO ☐ YES ☐ Control system ☐ NO ☒ YES ☐
Technical data: Cutting rate 20–120 m.min-1
Cutting angle 0° až 60°
Characteristic cutting range 520 x 360 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

2004/108/EC

The applied harmonized standards, National standards and technical specifications:

ČSN EN ISO 12100:2011	ČSN EN ISO 16093:2018	ČSN EN ISO 13857:2021
+ Opr.1:2020 + Opr.2 :2021		
ČSN EN ISO 4413:2011		ČSN EN 60204 -1 ed.3:2019
ČSN EN 55011 ed.4:2017	ČSN EN 61000-6-2 ed.4:2019	ČSN EN IEC 61000-6-4 ed.3:2019
+ A1: 2017+ A11:2020 + A2:2020		

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, 05.08.2022

Point of issue, datum

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



Alfred Pichmann, Managing Director

and function of the responsible subject, signature

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

2) Person authorized to complete the technical documentation

3) The authorized or accredited body co-operating on the conformity judging

!

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!

Attention!

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

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

1.1. Machine determination

The band saw **Individual 520.360 GANC LS2300** is determined for cutting and shortening of rolled bars and drawn bars and profiles from steels, stainless steels, non-ferrous metals and plastics **with cutting angle from 0° to 60°**.

Combustible materials are excepted for cutting! 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.

1.2. Protective suit and personal safety

Wear tight fitting overalls! Loose fitting clothes may be caught with machine parts and cause serious injury.

Attention!

Gloves you can use only at working material replacement (saw band)! The machine and accessories must be inactive!

If the machine is running, you must not wear gloves! It is dangerous, because some parts of the machine can catch gloves!

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

Wear protective shoes with non-skid soles! The unsuitable shoes may cause balance loss and following injury. Falling work pieces may cause serious injuries too.

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

Always wear ear protections! Most of the machines emit up to 80 dB and may damage your 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 to work. Illnesses or injuries diminish concentration. Avoid machine work, which may compromise the safety of you and your colleagues!

Attention!

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

1.3. Safety notes for machine operator

Attention!

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

Machine can be operated only by one person. Machine operator is responsible for presence of other persons by the machine.

Keep instructions and orders about work safety!

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

Close covers before the machine starting and check, if the covers are not damaged. Damaged covers must be repaired or changed. Do not start the machine, if the cover is removed! Check, if the electric cables are not damaged.

Attention!

Do not connect the machine to electricity if the covers are removed. Do not touch the electrical equipment.

- Do not hold the material for clamping to the vice and for cutting!
- Do not operate with the buttons and the switches on the control panel, when you have gloves!
- For machine starting take care, that there is nobody in the working area of the machine (it means in the working area of the vice, the saw band, the saw arm etc.).
- In no circumstances touch the rotating elements.
- Work on the machine only when the machine is in good condition!
- Check at least once in a shift, if the machine is not damaged. If the machine is damaged, you must bring the machine in order and you must inform your superior!
- Keep your working area clean! Ensure sufficient lighting in the working area.
- Take off the spilt water or the oil from the floor and dry it. Do not touch the cooling liquid with bare hands! Do not set the nozzle of the cooling liquid, when the machine is started on
- Do not remove the chips from the working area of the machine, when the machine is started on!
- Do not use the compressed air for the machine cleaning or for the chips removing!
- Use the protective instruments for chips removal!

1.4. Safety notes for the servicing and repairs

Attention!

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

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

Only qualified person can do the servicing and repairs. For parts changing, use only parts, which are identical with the originals. Otherwise, there is possibility of health hazard. Use only recommended type of the hydraulic oils and oils and lubricants!

Do not remove or do not lock the limit switches or safety equipments! Any use of the saw, accessories or machine parts other than that intended by the BOMAR, spol. s r.o. company is not permitted. The guarantee on this product will be afterward lost and BOMAR, spol. s r.o. takes no responsibility for caused damages.

1.4.1. Safety notes for the servicing and repairs on hydraulic unit

Compliance with the the principles of cleanliness is basic requirement for trouble-free operation of hydraulic equipment. Hydraulic components are products made with high accuracy, and any contamination leads to a reduction lifetime or even malfunction. The consequences are very difficult to remove and expensive.

Always use clean tools. Parts and fasteners, which are part of a hydraulic circuit, never put away the dirty surface. The best cleaning agent is crepe paper, because the fibers of the cleaning cloths can also cause malfunction.

Protective cap from the threaded chamber remove just before the assembly of the unit.

Hoses and pipes before mounting flush with gasoline or other cleaning agent and blow compressed air.

All fittings must be properly tightened. However, do not raw power

1.5. Safety notes for the cooling

Attention!

- **When handling cooling agents always wear hazardous fluid-proof gloves!**
- **Wear protective goggles!**
- **Cooling liquid can get in contact with your eyes and may cause permanent severe injuries**

1.5.1. Instructions for first help

1. Pull off and safely remove polluted, soaked clothing.
2. For breathing, go out in the fresh air or look for first aid treatment.
3. Wash with water or use crèmes for contact with the skin.
4. Flush with water for eyes and look for first aid treatment.

5. For swallowing, drink a lot of water and induce vomiting. Look for medical help.

1.6. Safety machine accessories

Enhanced risk!

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

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.

1.6.1. Total Stop

TOTAL STOP button is used for emergency switching – off the machine in case defect or health hazard. By pressing TOTAL STOP button is interrupted the supply of the electrical power.

If any damages or fault appears, immediately press TOTAL STOP button!!

Release the pressing button is possible by twisting of the upper part of the button.



The TOTAL STOP button is placed at the control panel of the machine



1.7. 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)

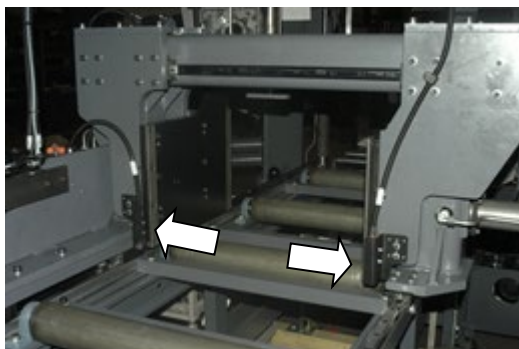
1M (laser barriers)

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 easch shift. Be careful during the cleaning in order the laser was not been schratched and broken!.

Location of the laser at the feeder



Attention!

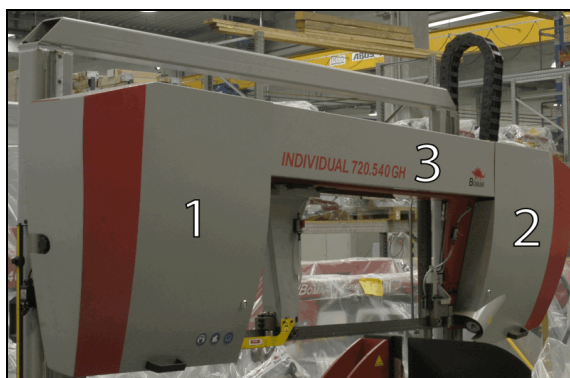
It is necessary for correct functionality of a laser to regularly check the patency of the laser ray on the sensor and to clean the laser from impurities (clean rag + spirit) after each shift. Be careful during the cleaning in order the laser was not been scratched and broken!

1.7.1. Arm covers

Left cover – It covers tightening wheel. If the cover is opened during operation, the limit switch is opened and the band saw is stopped. The band saw is not possible start in set mode.

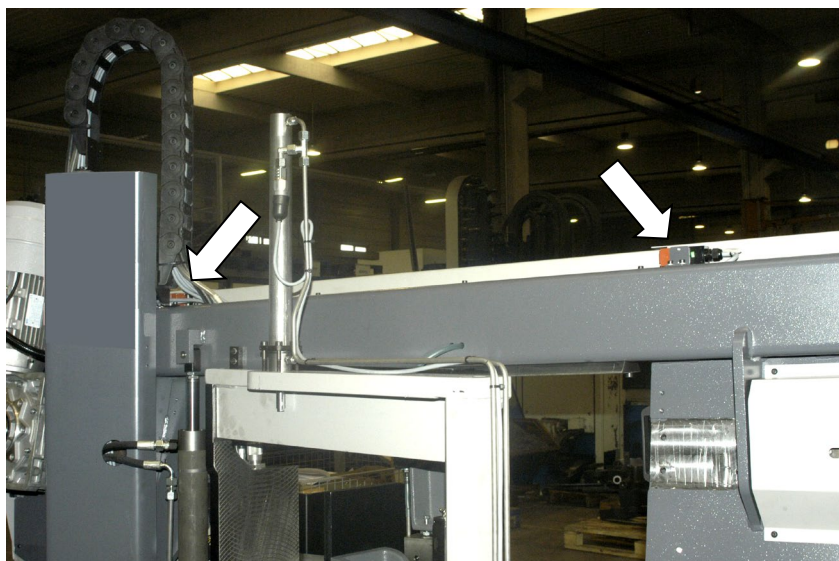
Right cover – It covers driving wheel. If the cover is opened during operation, the limit switch is opened and the band saw is stopped. The band saw is not possible start in set mode.

Central cover – It covers band saw.



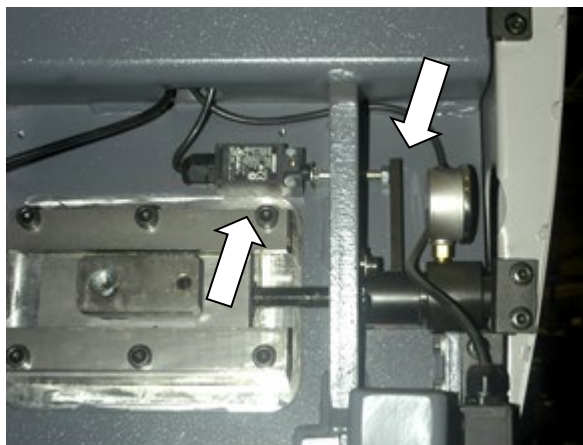
The band saw is stated to the operation, when the covers is closed!

Two limit switches on saw arm control if covers are open or not.



1.7.2. Saw band stretching and rupture inspection

This device checks the saw band stretching and causes immediate machine shut – down in the event the band ruptures.



The device contains limit switch. Check the stretching carefully and periodically – eventually adjust.

1.7.3. Band saw covers

These covers protect the visible area of the saw band from left guiding cube to the frame.



Never switch on the saw band driver if some from these covers is not mounted!

1.8. Safety notes for Swarf conveyor

Swarf conveyor is an accessories the machine pays for standing with this device

When the machine is switched swarf conveyor only operate using the control panel (see Chapter 3. Machine control)

Attention!

It is forbidden to enter the swarf conveyor area if the saw is in operation. All maintenance and other works on the swarf conveyor could be done only on equipment which has been switched off.

1.8.1. Protected space around saw - Protective fencing

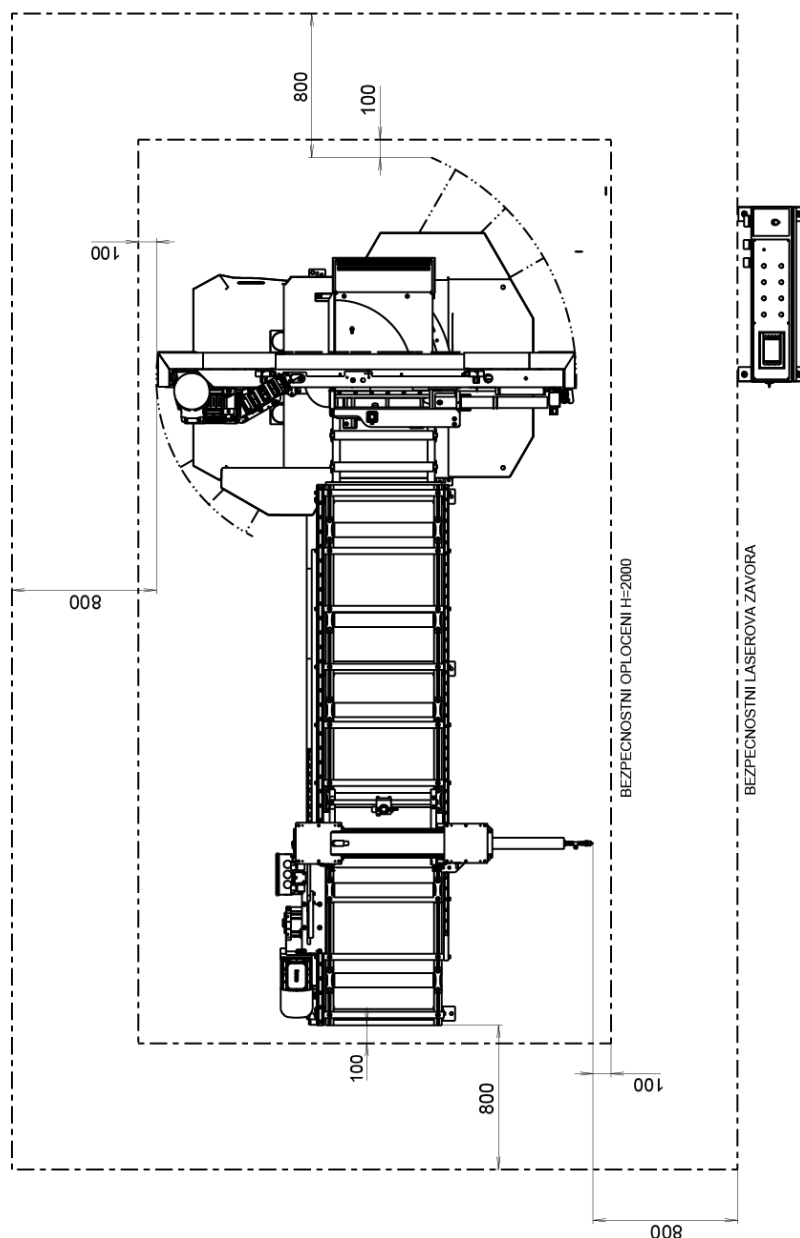
The protective fencing prevents persons from entry and intervention in the device working area during the working cycle..

The equipment operation can only be safe with the safety protective fencing according to EN ISO 13857! Do not put the equipment in operation without the safety fencing according to EN ISO 13857! If the equipment is operated without the safety fencing according to EN ISO 13857, the submitted EC Declaration of Conformity expires!

Caution!

The device can only be operated safely with the safety protective fencing!

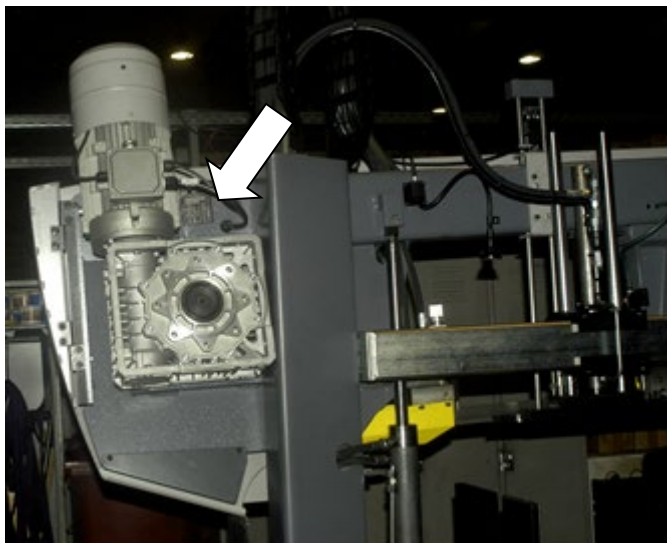
The recommended fencing parameters and distances between the safety fencing and working space of the device must be respected according to the recommendations! If these recommended distances and parameters are not kept as the minimum allowed dimensions, the declaration of conformity for this device becomes ineffective and invalid!



1.8.2. Control panel location

For safety reasons, the control panel must always be located outside the working area of the device delimited by the protective fencing according to EN ISO 13857. If the control panel is located in the area delimited by the protective fencing, the submitted EU Declaration of Conformity expires.

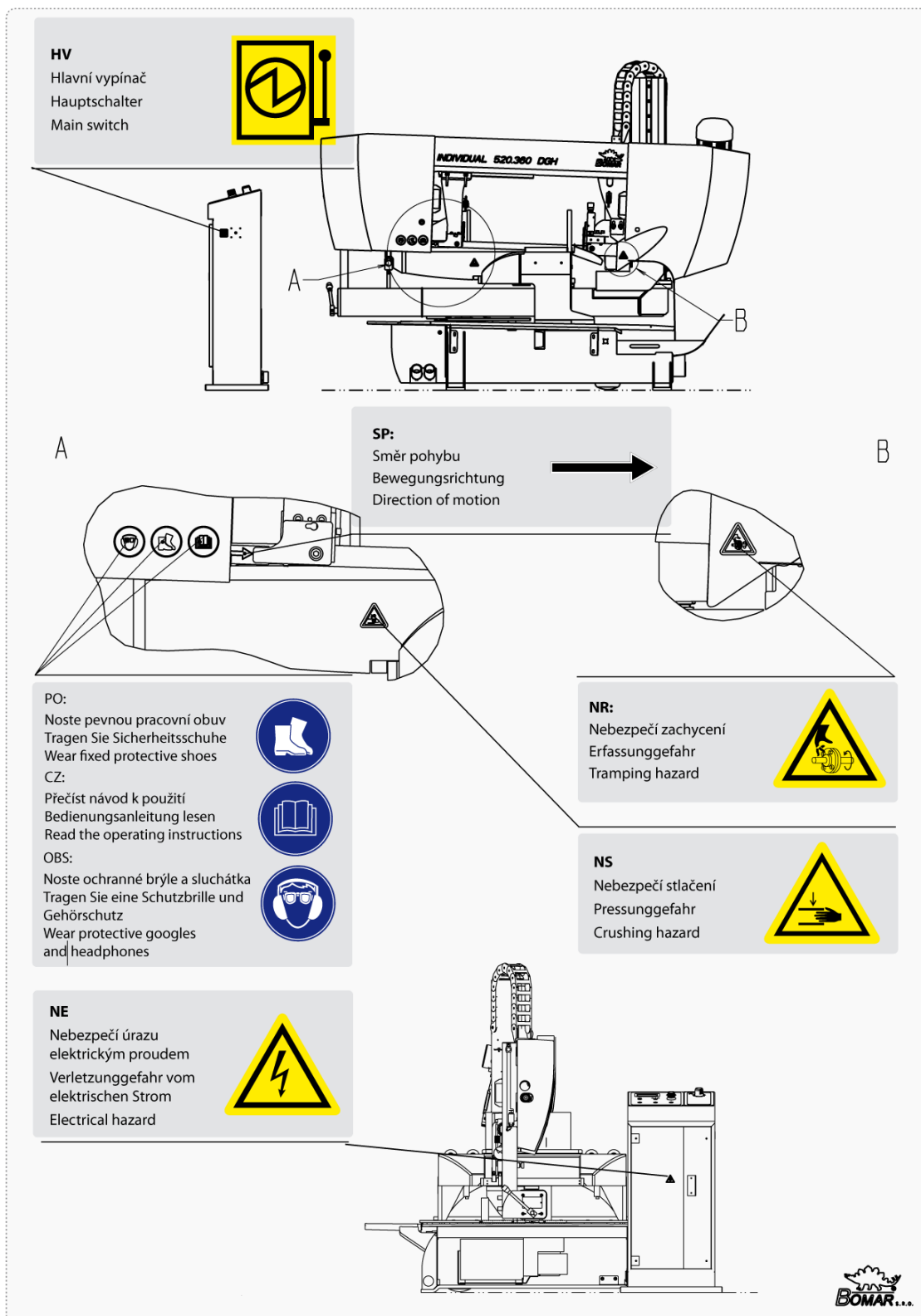
1.9. Umístění štítku stroje /
Maschinenschild position /
Position of machine label



The machine label is located on the saw frame, between pillar and band drive.

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

1.10.1. Pila / Band saw



1.10.2. Podavač / Vorschub/ Feeder



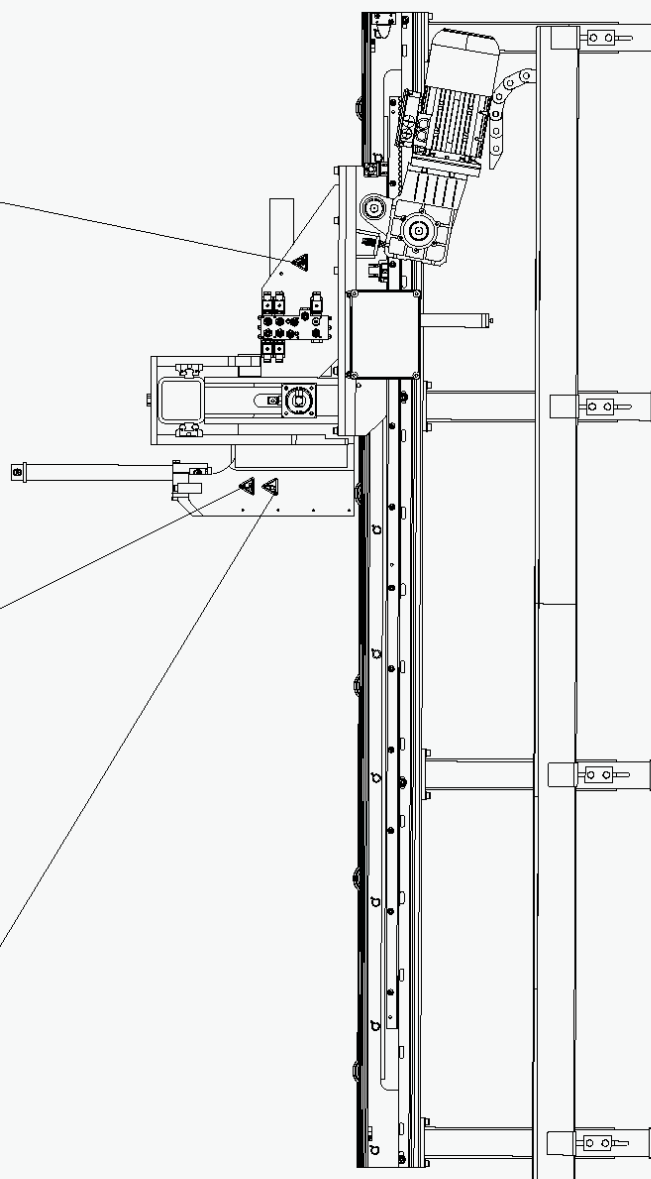
NR:
Nebezpečí zachycení
Erfassungsfahr
Trampling hazard



NS
Nebezpečí stlačení
Pressungsfahr
Crushing hazard



NN
Nebezpečí nárazu
Stoßfahr
Danger of stroke

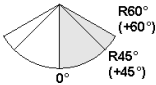
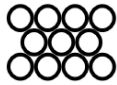


2. **Dokumentace stroje / Machine documentation / Machine documentation**

2.1. Technická data / Technische Daten / Technical data

Hmotnost stroje / Maschinengewicht / Machine weight:	
• Hmotnost / Gewicht / Weight	2200 kg
Rozměry stroje / Maschinengröße / Machine size :	
• Délka / Länge / Length	4500 mm
• Šířka / Breite / Width	2350 mm
• Výška / Höhe / Height	2100 mm
Elektrické vybavení / Elektrische Ausrüstung / Electrical equipment:	
• Napájení / Versorgungsspannung / Supply voltage	3 x 400 V (230 V), 50Hz, TN-C-S/TN-C
• Příkon / Gesamtschlosswert / Total Input	5,7 kW
• Max.jištění / Max. Vorschaltssicherung / Max. Fuse	32 A
• Krytí / Schutzart / Protection	IP 54
Akustický tlak / Schalldruckpegel / Acoustic pressure:	
• Individual 520.360 GANC LS 2300	$L_{Aeqv} = 76,3$ dB
Pohon pilového pásu / Atrieb / Drive	
• Typ / Typ / Type	BN112M4
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400V, 50Hz
• Výkon / Leistung / Output	3 kW
• Jmenovité otáčky / Motorenndrehzahl / Nominal speed	1440 min ⁻¹
Pohon podavače / Vorschubtrieb / Feeder drive:	
• Typ / Typ / Type	GKR05-2M HAR090C32, MDEMABR090-32C1C
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400V, 50Hz
• Výkon / Leistung / Output	1,5 kW
• Jmenovité otáčky / Motorenndrehzahl / Nominal speed	1410 min ⁻¹
Hydraulické zařízení / / Hydraulic equipment	
• Typ / Typ / Type	PPM-ACO
• Výkon / Leistung / Output	0,6 kW/4,5 MPa
Chladicí zařízení / Kühlmiteleinrichtung / Cooling equipment:	
• Typ / Typ / Type	3-COA4-12
• Výkon / Leistung / Output	0,12 kW
• Obsah nádrže / Volumen vom Kühlmittel / Capacity	35 l
• MICRONISER	na přání / möglich / optional -
Rozměr pásu / Säbanddimension / Band size:	
4780×34×1,1 mm	
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:	
20-120 m/min	
Jeden Zdvih / Vorschublänge Einfachhub / One Upstroak:	
750 mm	
Max. Délka podání / Max. Vorschublänge / Max. feed:	
2300 mm	
Minimální řezaná délka / Minimale schnittlänge/Minimal cutted material size:	
20 mm	

Řezné rozsahy / Schnittbereiche / Cutting size:

						
0°		Ø360 mm	520×360 mm	360×520 mm	360×360 mm	520×200 mm
45° R		Ø360 mm	355×325 mm	360×315 mm	350×350 mm	
60° R		Ø250 mm	325×235 mm	360×215 mm	235×235 mm	

Warning:

If the material detection device is installed on machine maximal workpiece height is 10 mm shorter.

Warning:

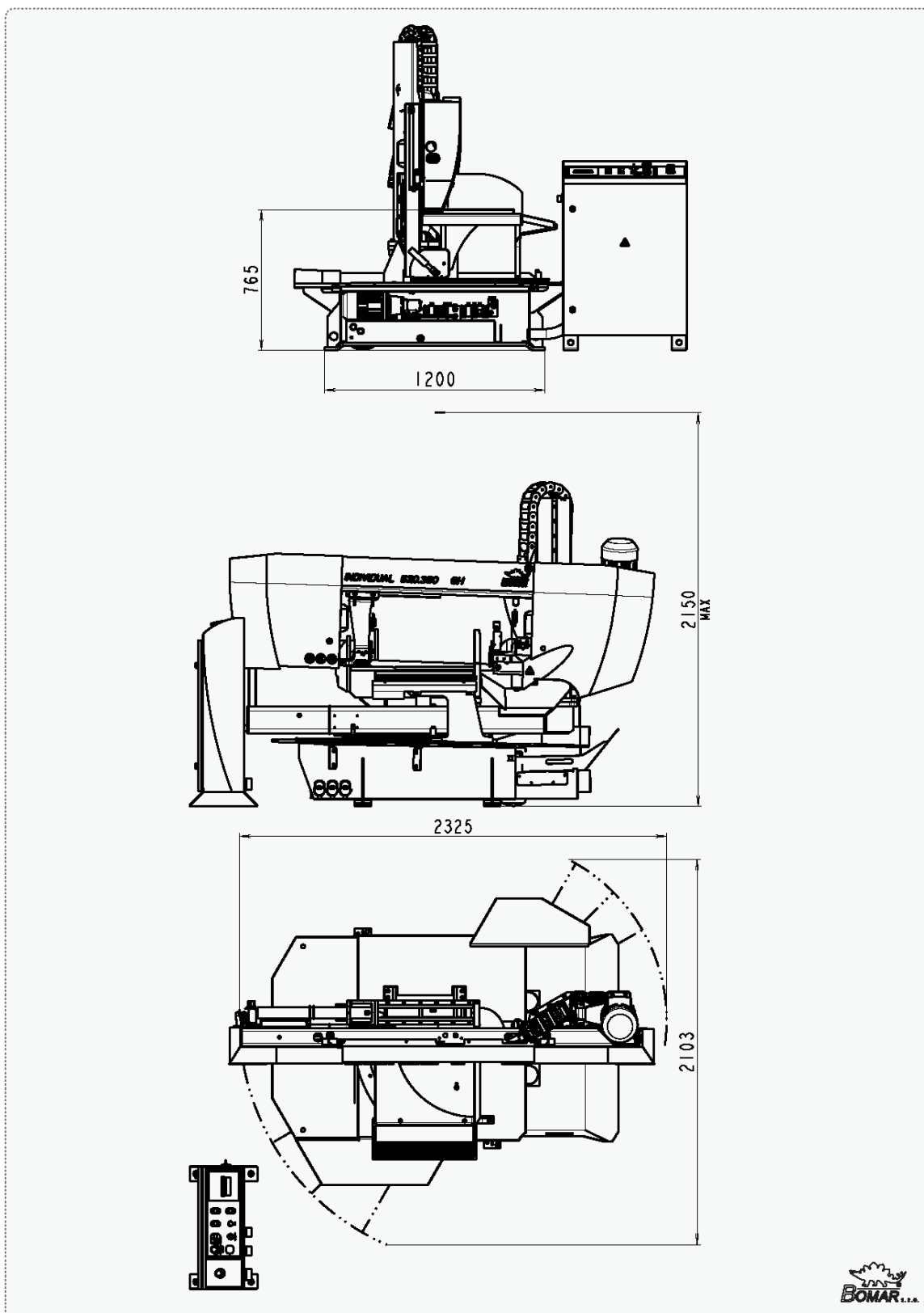
If top clamping is installed on machine workpiece height is 50 mm shorter.

Acoustic pressure level:

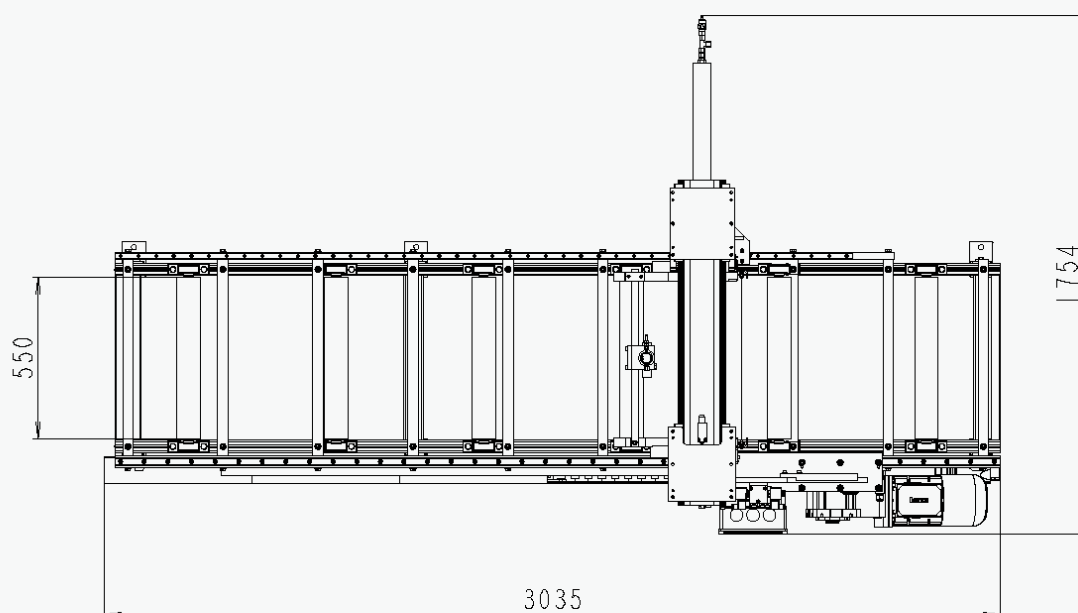
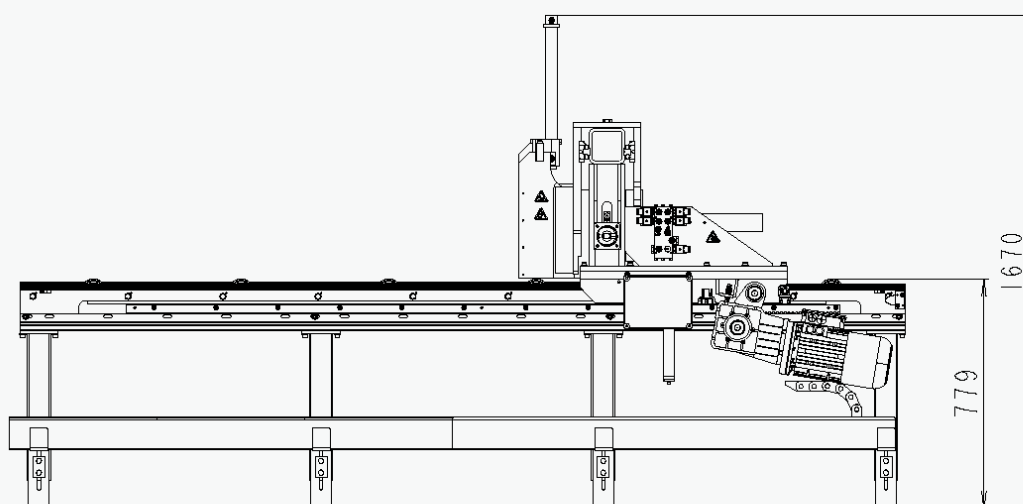
The equivalent level of the acoustic pressure A (noise) in the position of the operator is $L_{Aeqv} = 76,3$ dB. The values are indicating the emission levels and may not present safety working levels. Among the factors, which influence the real values of the operator exposure, are properties of the workshop room, cut material and used saw bands – which may significantly influence the exposure levels.

2.2. Aufstellzeichnung / Installation diagram

2.2.1. Pásová pila / Bänd sage / Band saw

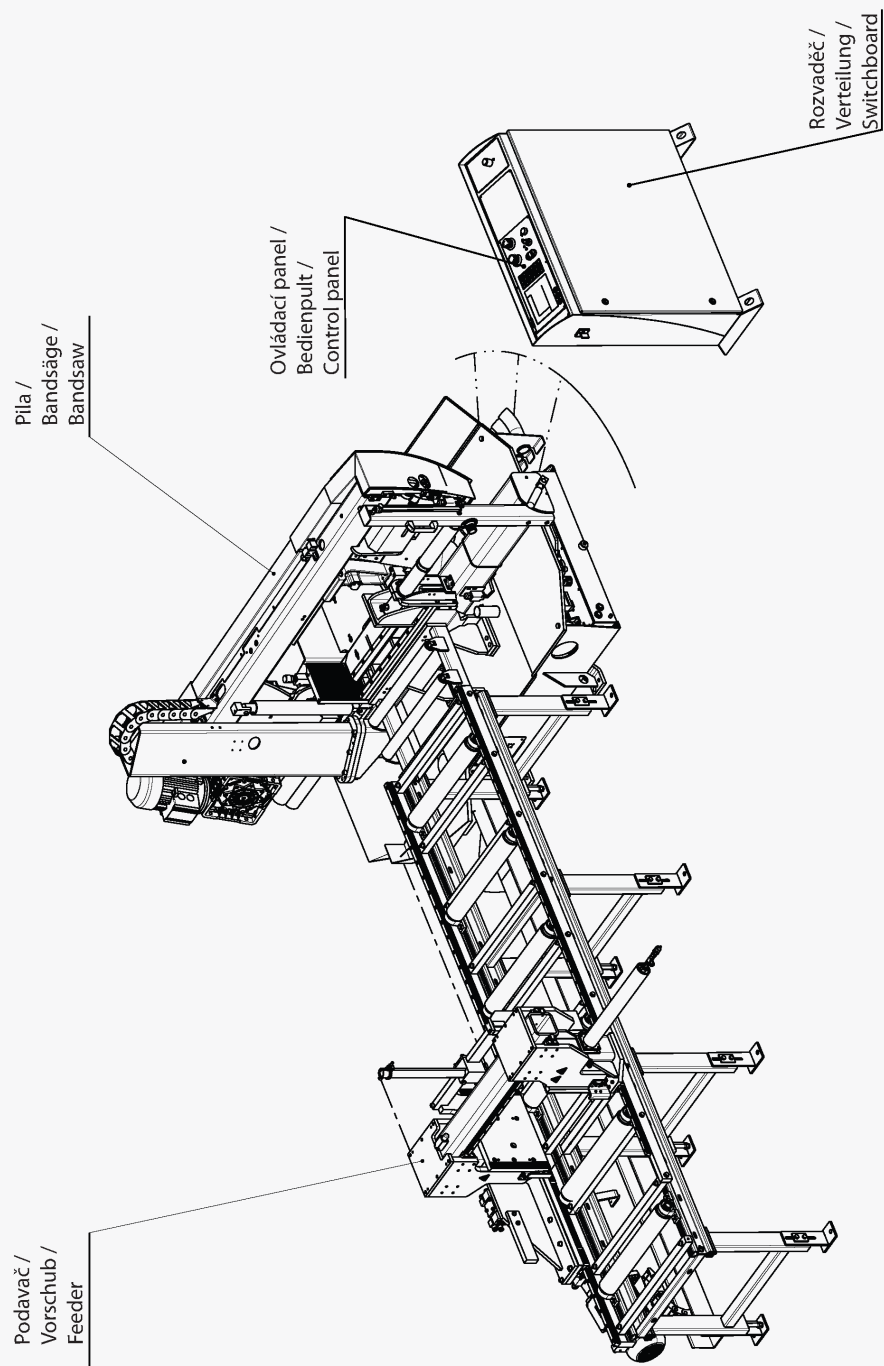


2.2.2. Podavač / Vorschub / Feeder

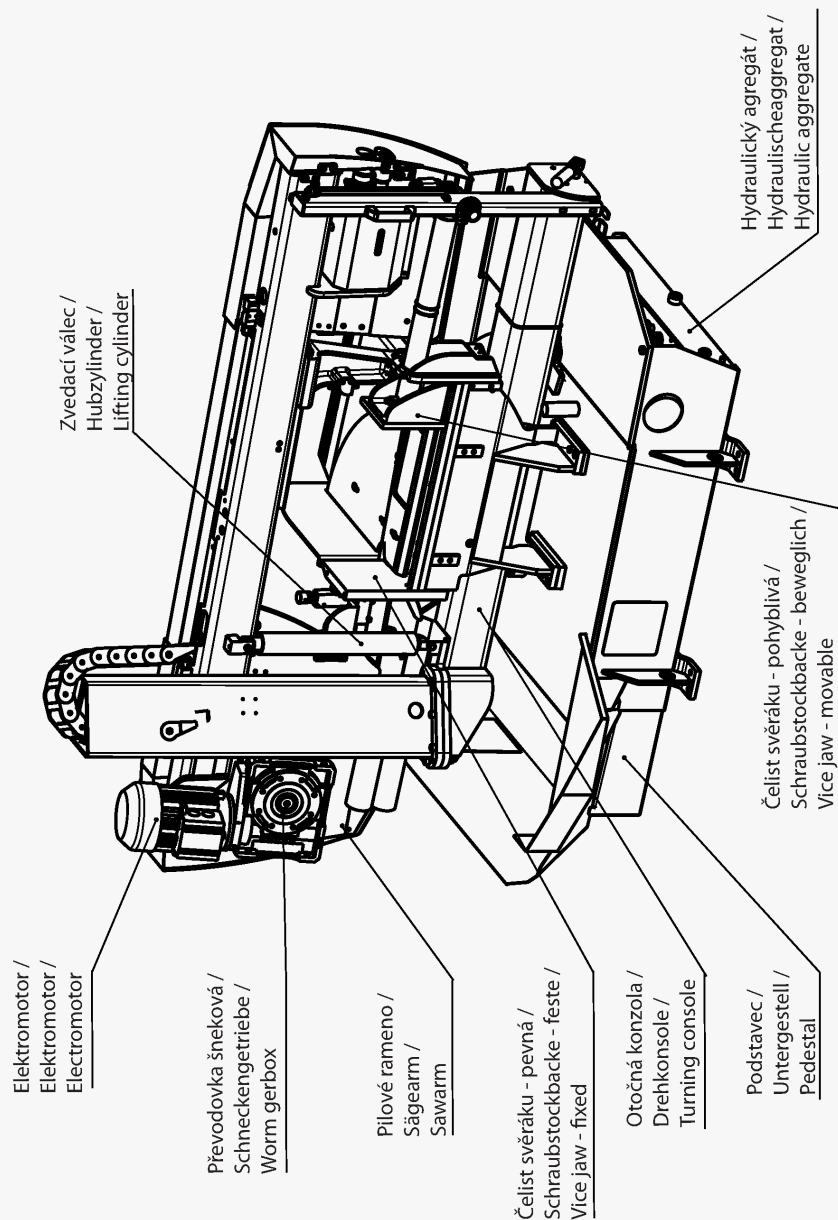


2.3. Popis / Beschreibung /Description

2.3.1. Individual 520.360 GANC LS 2300



2.3.2. Pásová pila / Bänd sage / Band saw



2.4. Transportation and stocking

2.4.1. 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.

2.4.2. Transport and stocking preparations

- Close the vice and thoroughly oil all blank surfaces.
- Lower the saw frame to the lowest position.
- Make sure to empty the machine of all traces of the cooling agent.
- 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.

2.4.3. Transport and stocking

Handle the machine only with a forklift truck! Use the lifters of the truck according to the Transport scheme.

- Make sure that the forklift has sufficient capacity.
- Make sure that the van or the trailer has sufficient capacity.
- The machine must be properly secured during transport, to not tip over or fall from the transport vehicle.
- Screw on the palette to the floor of the van or the trailer.
- Be careful that the machine is not damaged during transportation.

Attention!

It is forbidden to handle the machine any other way (for example by, lifting by the saw frame of the band saw), than it is written in this operating instructions, the machine can be damaged!

- Store the machine only under the conditions specified in this manual to prevent damage to the machine

Place the forks of a fork lift truck according to these marks!

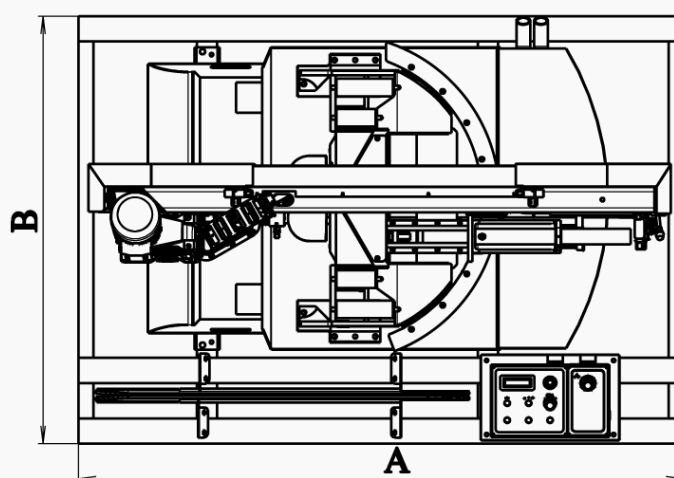
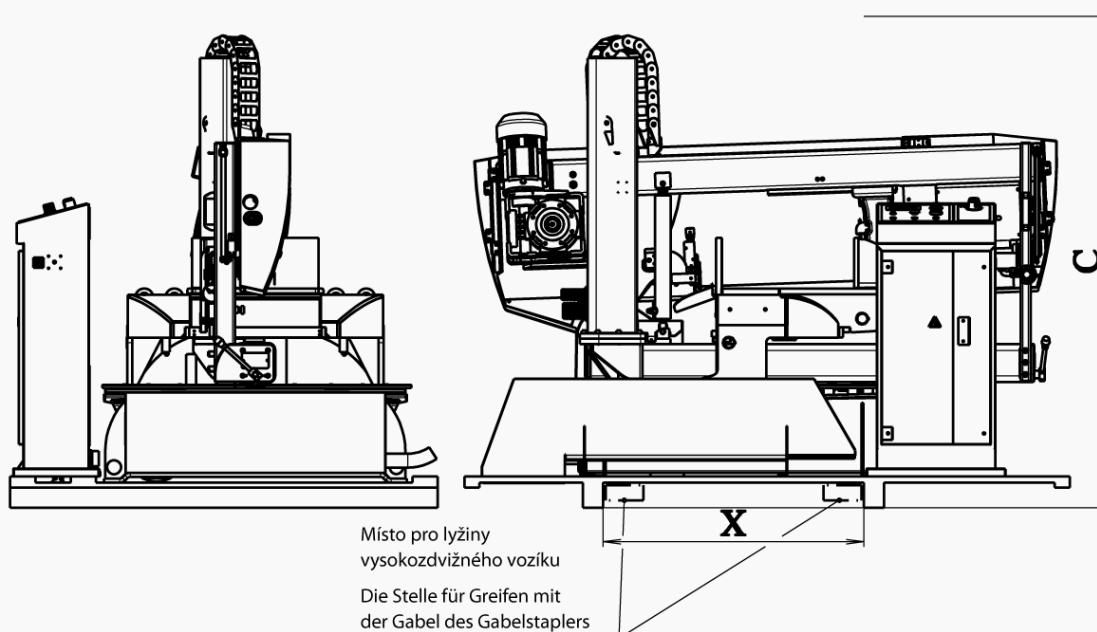
Ovládání stroje
Bedienung der Maschine
Machine control



2.1. Transportní schéma /Transport schema / Transport schneeme

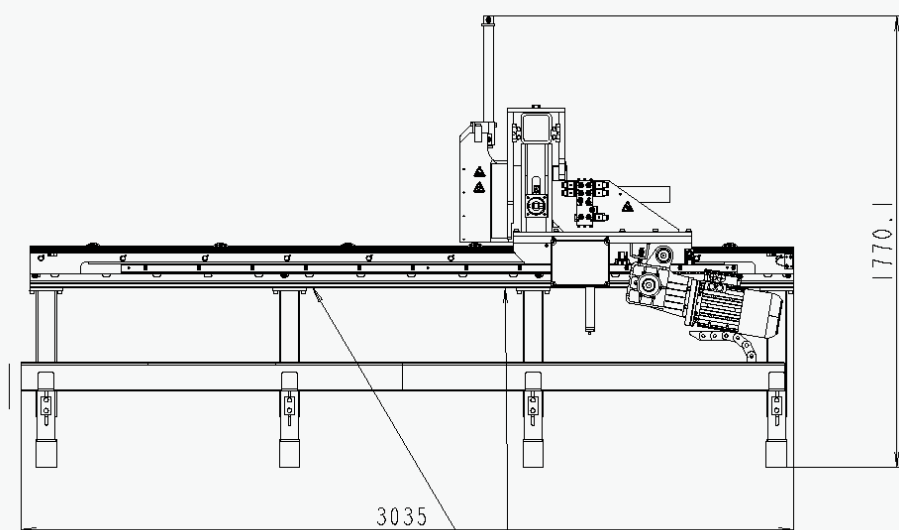
2.1.1. Pásová pila / band saw

	A	B	C	X
Individual 520.360 (D)GH	2400	1695	1950	1200
Individual 620.460 (D)GH	3100	1695	2260	1200
Individual 720.540 (D)GH	3300	1930	2430	1225
Individual 820.640 (D)GH	3600	1930	2600	1225

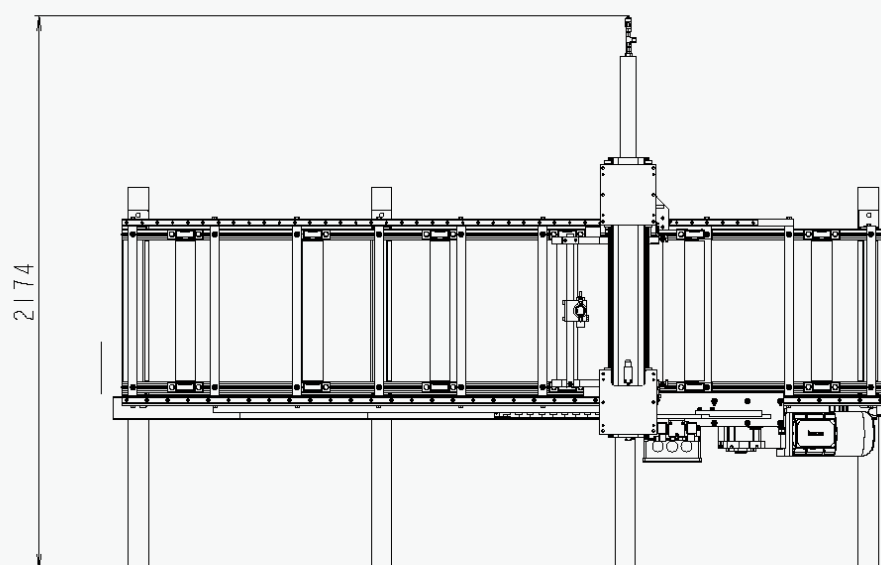


2.1.2. Podavač / Feeder

Ovládání stroje
Bedienung der Maschine
Machine control



Prostor pro lyžiny vozíku
Die Stelle für Greifen mit den Gabeln des Gabelstaplers
Place for forklift's skides



2.2. Activation

2.2.1. 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 metres.
- 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.

2.2.2. Band 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.

2.2.3. Machine installing and levelling

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 – Individual 520.360 GANC – 1800 kg

+ weight of accessories

+ maximum weight of material

- The machine must be levelled at the horizontal position. All feet of the machine must touch with the floor after levelling
- The machine must be levelled 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 levelling, 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.

2.2.4. Filling of the cooling system

Note:

If the machine is equipped with the Microniser, fill the tank of the Microniser with the specified cooling agent. Thus the Microniser is ready for operation.

2.2.5. Connecting to the compressed air supply

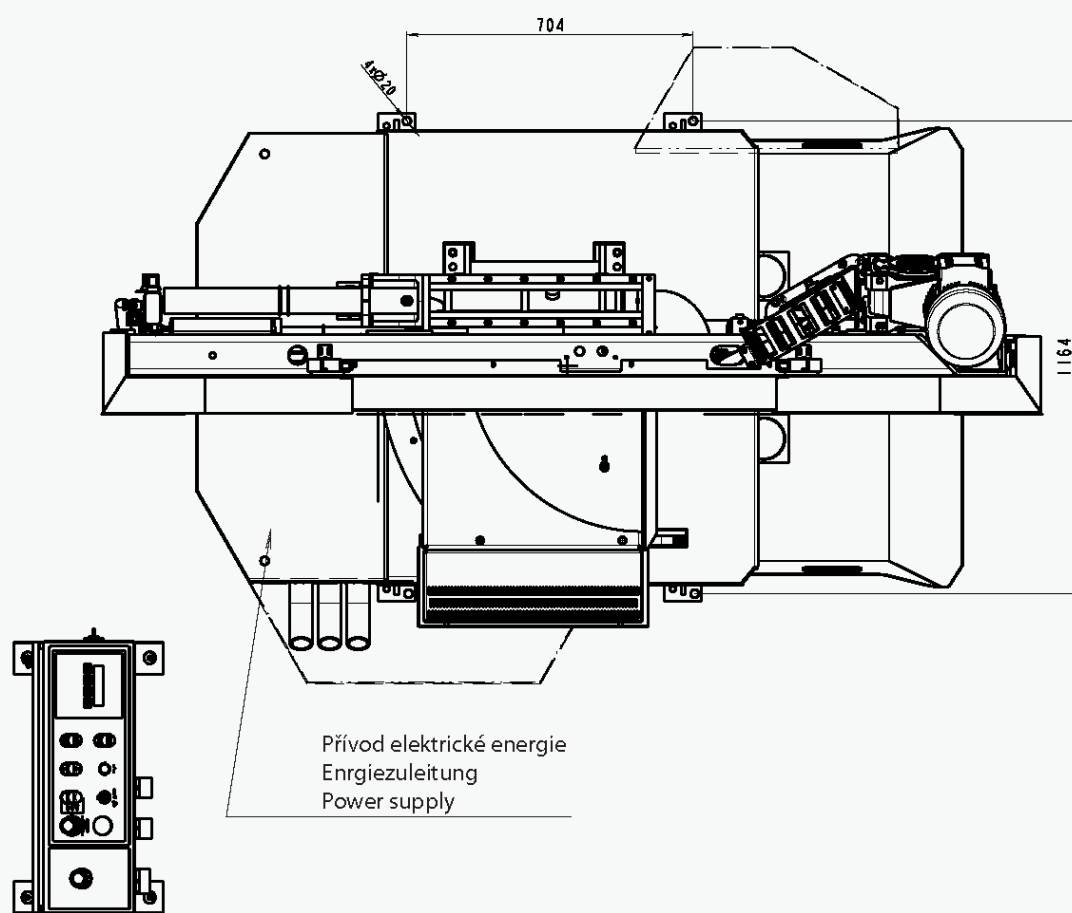
Connect the machine to the compressed air supply by means of the screw G1/4 on the manifold period according to the picture.



Compressed air for Microniser must satisfy conditions:

- Roughly cleaned and partly dry
- $p_{\min} = 0,4 \text{ MPa}$
- $p_{\max} = 0,6 \text{ MPa}$
- Flow - 50 l/min.

2.3. Kotevní plan / Verankerungsplan / Grounding plan



Kotvící materiál / Verankerungsmaterial / Grouding material

- 4x Chemická hmoždina / Chemischer Dübel / Chemical anchor – $\varnothing 18$ mm
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 140 mm
- Šrouby / Schraube / Screws – 4xM16 + M16 (pro ustavení stroje do roviny / für Einstellung der Anlage in Ebene / for levelling of the machine)

- Šrouby podložit deskami o min. rozměrech P10x100-100
- Die Schrauben mit Platten mit Minimaldimensionen P10x100-100 unterlegen
- Screw must be bottomed with plates (min. dimensions P10x100-100)

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

± 10 mm / 1 m

2.4. 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: ~ 3×400V / 3×230 V, 50 Hz, TN-C-S / TN-C-S
- Total input / Max. fuse: 6,7 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 kW.

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.

2.4.1. Check the direction of the saw band



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

2.4.2. Check machine connection into electrical network



Attention!

When you connect the machine to the electrical network observe correct connection of all phases! ENGINE IN IN HYDRAULIC AGGREGATE CANNOT BE OPERATED WITH REVERSE TURNING MORE THEN 10 SECONDS!!!



2.5. Filling of the cooling system

Prepare the mixture of the water and the cooling liquid. Keep the concentration specified by manufacturer. Shift away the cover from the drainage hole. Fill the mixture of the water and the cooling liquid to the tank of the cooling system. Area of the tank for the cooling liquid is discovered from the chapter *Technical data*.

Let the drainage hole opened and with the sieve during operation, because it secures the right work of the cooling system. Filling the tank with the cooling liquid, take care that the liquid does not drip out of the tank and the tank does not overflowed.

Note:

If machine is equipped with microniser, fill microniser with prescribed cooling liquid. This made the Microniser ready for use.

2.6. First run of the power pack

Before the first run check:

- The direction of the Pump, while run the power pack for max. 2seconds.
- The cooling fan of the motor has to rotate in the same direction as the arrow on the top of the motor cowling indicates.
- In case of wrong rotational direction, the electrical phase in the connection box is to be changed. This check is required after every disconnection from the power source
- Wiring matches with electrical and hydraulic diagrams
- the electric motors (pump and cooler) are properly connected and have the prescribed rotation
- the hydraulic accumulator with nitrogen gas to the specified value
- aux. elements work right (thermometer, level gauge, heater)

First run (Attention – working pressure on securing valve is set by producer in accoring the hydraulic diagram):

- In the short intervals activate an electric pump
- check for leaks and noise
- Bleed the hydraulic circuit
- if possible, test the circuit function with minimum load

- test the electrical equipment
- during operation monitor measuring equipment, noise, height and temperature of oil in the tank
- During this time a careful bleeding off for the whole hydraulic system is necessary. In case there is no bleeder port, the power pack will bleed itself after a while via the air breather on the tank or the return line filter.
- Upon the first start-up, the devices and distribution system are filled up with oil, and therefore the oil level in the tank drops. If the level drops below the minimum value, you must refill the oil after switching off the device.

After multiple start-up, the hydraulic unit is ready for operation.

2.6.1. Filling the reservoir with hydraulic oil

Oil regulations and recommendations of the manufacturer in the technical documentation (appendix) are to be carefully observed. For standard power packs we recommend the oiltype OH-HM32 (DIN 51524) of all known oil manufacturers.

Power packs have to be filled up with clean, pre-filtered oil! The purity of the hydraulic fluid must correspond to the class 10 NAS 1638 (reachable with filter $\beta_{=75}$)!

Filling from container, such as barrels, buckets, etc. is not recommended or permitted!

The maximum oil level will be shown on the upper marking at the dipstick or the sight level glass. Overfilling has to be prevent. The maximum filling rate of 15 l/min shouldn't be exceed.

Oil type	Kinematic viscosity ν in mm ² /s in relationship to the fluid temperatur					Freezing point
	0°C	20°C	40°C	60°C	80°C	°C
OH-HM 32	220	100	32	15	7	-40
OH-HV 32	180	67	32	17	11	-40

2.7. Check machine function

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

Check, if covers are installed and functional. Check by means of the Tenzomat if the saw band is correctly stretched. If it is necessary, you can stretch the saw band according to chapter *Selection and replacement of the saw band*. Values of the saw band stretching are on the Tenzomat. Switch on the main switch and check the motors and systems (saw band drive, hydraulic pump, cooling pump, chips conveyor).

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

Start the machine with the cooling pump and let it run without load until the cooling system will be filled with cooling liquid. As soon as the cooling liquid starts to escape from the nozzles of the cooling system, the cooling system is ready for the operation. 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.

2.8. 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.

2.9. Saw band

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



2.9.1. Saw band size

4780×34×1,1 mm

2.9.2. Selection of the saw band tooth system

The manufacturers provide the saw bands with constant and variable tooth system. The important factor for selection of the tooth system is length of the cutting canal with respect to the size of the product

BOMAR for recommended Variable tooth system for band saw.

1. *Constant tooth system* – the saw band has parallel tooth pitch all over length. This way is suitable for cutting of solid material.
2. *Variable tooth system* – tooth pitch is variable. Variable tooth system is used for profiled materials and bundle cutting. Variable tooth pitch lowers vibration of the saw band, increases service life of the saw band and quality of the cutting area.

In tables, there are advised type of the tooth system depending on sizes and form of the cutting material.

Footnotes:

Z_pZ – teeth number on one inch S – tooth with zero angle of the teeth K – tooth with positive angle of the teeth

Examples of the tooth system marking:

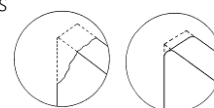
32 S – number „32“ means 32 teeth on one inch (that means constant tooth system), letter „S“ marks teeth with zero angle of the tooth.

4–6 K – number „4–6“ means 4 till 6 teeth on one inch (that means variable tooth system); letter „K“ marks teeth with positive angle of the teeth.

2.9.3. Saw band running-in

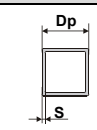
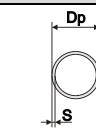
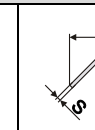
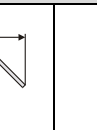
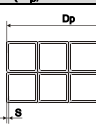
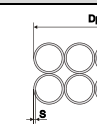
Running-in: Cut the material with the frame lowering reduced to 50% only. When vibrations occur increase or decrease the band speed.

When cutting small pieces run the band until approximately 300 cm² of material has been cut. When cutting large pieces run the band for 15 minutes approximately. When the band has been run, increase the lowering-speed to normal speed. The running in of the saw band avoids micro-breaks on the cutting edges of new saw band ensuing from first excessive stress. This would decrease service life substantially. The optimal running in of the saw band produces ideal rounded cutting edges and therefore the conditions for an optimal service life.

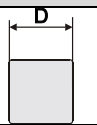
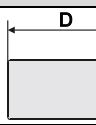
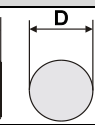
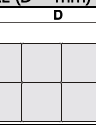
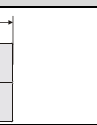
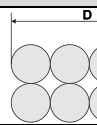


Note: Run regrinding saw bands too.

2.9.4. Tables for teeth selection

SHAPED MATERIAL ($D_p, S = \text{mm}$)						
						
Note: Table shows tooth system selection for cutting one piece of the profile. For cutting of more pieces of the profiles (bundle), you must think of the size of the wall as double size of the wall of one profile (that means, size „S“ equates to $2 \times S$). In table, there are tooth systems constant and variable.						
Size of the wall S [mm]	Tooth system ($Z_p Z$) Outer diameter of the profile D_p [mm]					
	20	40	60	80	100	120
2	32 S	24 S	18 S	18 S	14 S	14 S
3	24 S	18 S	14 S	14 S	10–14 S	10–14 S
4	24 S	14 S	10–14 S	10–14 S	8–12 S	8–12 S
5	18 S	10–14 S	10–14 S	8–12 S	6–10 S	6–10 S
6	18 S	10–14 S	8–12 S	8–12 S	6–10 S	6–10 S
8	14 S	8–12 S	6–10 S	6–10 S	5–8 S	5–8 S
10	-	6–10 S	6–10 S	5–8 S	5–8 S	5–8 S
12	-	6–10 S	5–8 S	5–8 S	4–6 K	4–6 K
15	-	5–8 S	5–8 S	4–6 K	4–6 K	4–6 K
20	-	-	4–6 K	4–6 K	4–6 K	3–4 K
30	-	-	-	3–4 K	3–4 K	3–4 K
50	-	-	-	-	-	3–4 K

Size of the wall S [mm]	Tooth system ($Z_p Z$) Outer diameter of the profile D_p [mm]					
	150	200	300	500	750	1000
2	10–14 S	10–14 S	8–12 S	6–10 S	5–8 S	5–8 S
3	8–12 S	8–12 S	6–10 S	5–8 S	4–6 K	4–6 K
4	6–10 S	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K
5	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K	3–4 K
6	5–8 S	5–8 S	4–6 K	4–6 K	3–4 K	3–4 K
8	5–8 S	4–6 K	4–6 K	3–4 K	3–4 K	3–4 K
10	4–6 K	4–6 K	4–6 K	3–4 K	3–4 K	2–3 K
12	4–6 K	4–6 K	3–4 K	3–4 K	2–3 K	2–3 K
15	4–6 K	3–4 K	3–4 K	2–3 K	2–3 K	2–3 K
20	3–4 K	3–4 K	2–3 K	2–3 K	2–3 K	2–3 K
30	3–4 K	2–3 K	2–3 K	2–3 K	1,4–2 K	1,4–2 K
50	2–3 K	2–3 K	2–3 K	1,4–2 K	1,4–2 K	1,4–2 K
75	-	2–3 K	1,4–2 K	1,4–2 K	1,4–2 K	0,75–1,25 K
100	-	-	1,4–2 K	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K
150	-	-	-	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K
200	-	-	-	0,75–1,25 K	0,75–1,25 K	0,75–1,25 K

SOLID MATERIAL ($D = \text{mm}$)						
						
Constant tooth system		Variable tooth system				
length of the cut D	tooth system ($Z_p Z$)	length of the cut D	tooth system ($Z_p Z$)			
to 3 mm	32	to 30 mm	10–14			
to 6 mm	24	20–50 mm	8–12			
to 10 mm	18	25–60 mm	6–10			
to 15 mm	14	35–80 mm	5–8			
15–30 mm	10	50–100 mm	4–6			
30–50 mm	8	70–120 mm	4–5			
50–80 mm	6	80–150 mm	3–4			
80–120 mm	4	120–350 mm	2–3			
120–200 mm	3	250–600 mm	1,4–2			
200–400 mm	2	500–3000 mm	0,75–1,25			
300–800 mm	1,25					
700–3000 mm	0,75					

3. **Ovládání stroje / Bedienung der Maschine / Machine control**

3.1. Starting the machine and safety circuits

□

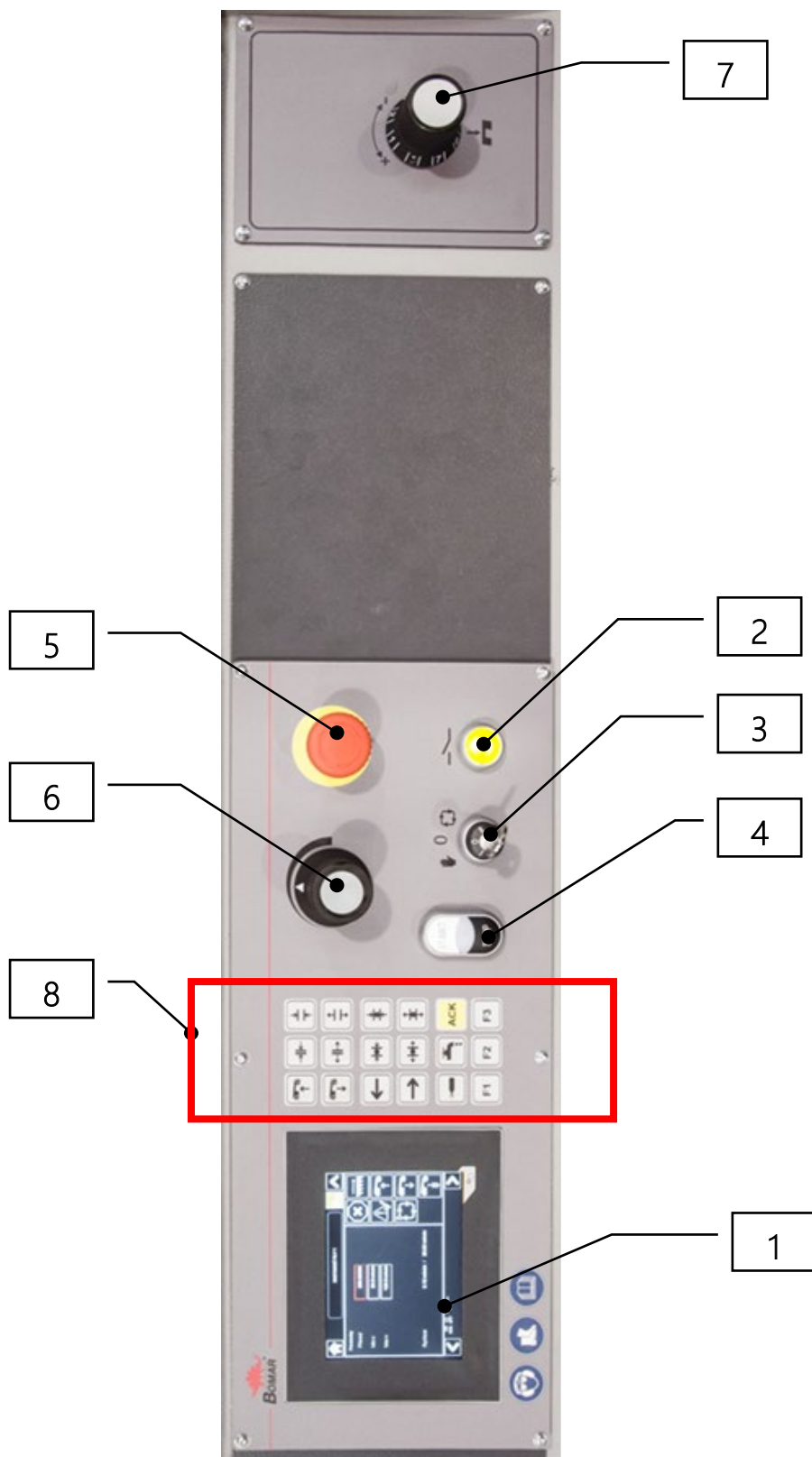


1. Turn the main switch into position 1 –ON.
The main switch is located on the side of the switchboard at the material input side (left side in respect to the control panel).
2. Switch on the Safety circuit of the saw. The safety circuit will run a check on all safety switches..



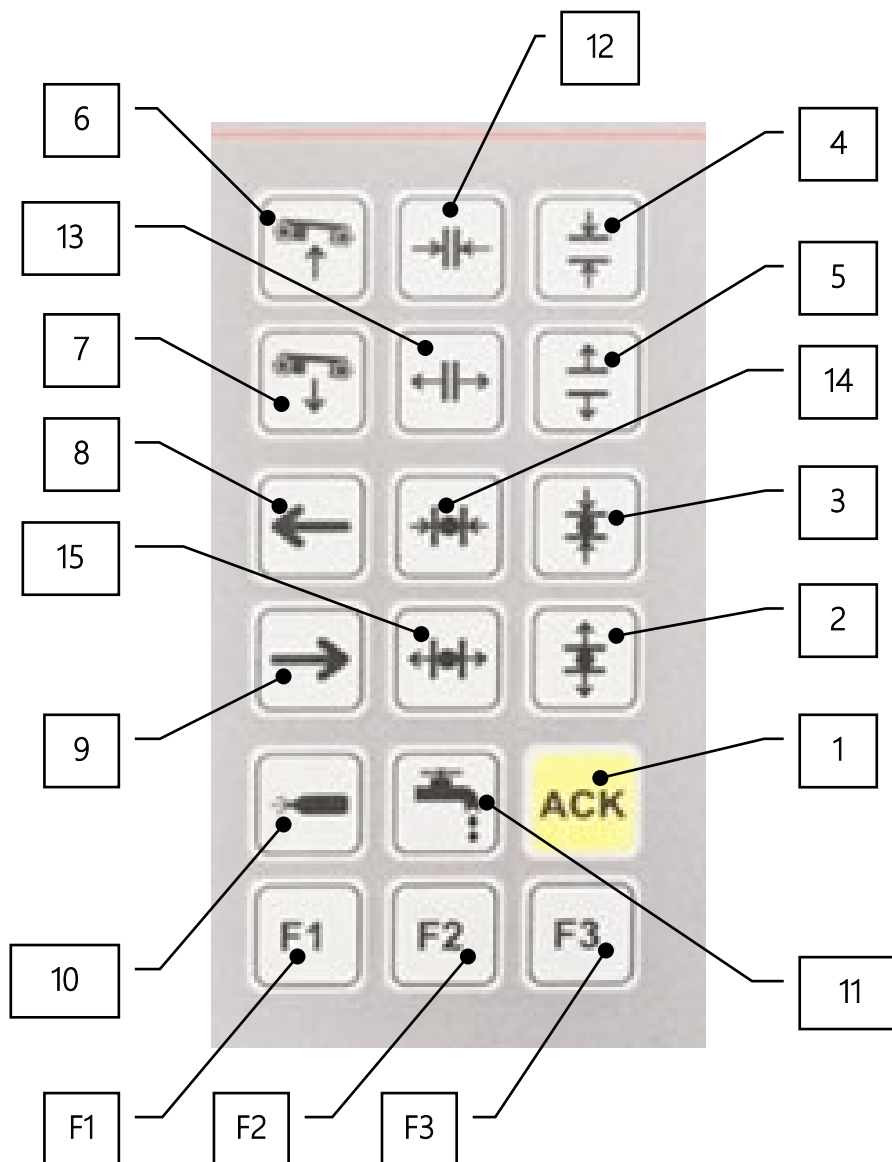
3.2. Control panel

Ovládání stroje
Bedienung der Maschine
Machine control



1	Touch screen Displays current type of operation and enables a dialogue with the personnel.
2	Safety circuit Press button to start the safety circuit
3	Operation mode setting You can chose one of three options:  Adjustment mode 0 Machine setting mode – service parameters and programs  Machine operation mode – semi-automatic and automatic mode.
4	STOP button Interrupts the cycle, to restart press START button. START button Press to start the work cycle.
5	TOTAL – STOP button Immediately stops the machine in a case of emergency.
6	Frequency converter, setting the speed of he saw band The frequency converter sets the speed of the saw band in an interval from 20 to 120 m.min ⁻¹
7	Regulation valve Regulation valve sets the lowering speed of the frame into the cut. The speed is limited by the adjustment of the pressure regulation on the guiding cubes. Note: If the throttle valve is closed too tightly, the valve seat may be damaged and may start to leak. Tighten the valve gently.
8	Control buttons – see below

3.2.1. Control buttons on the control panel



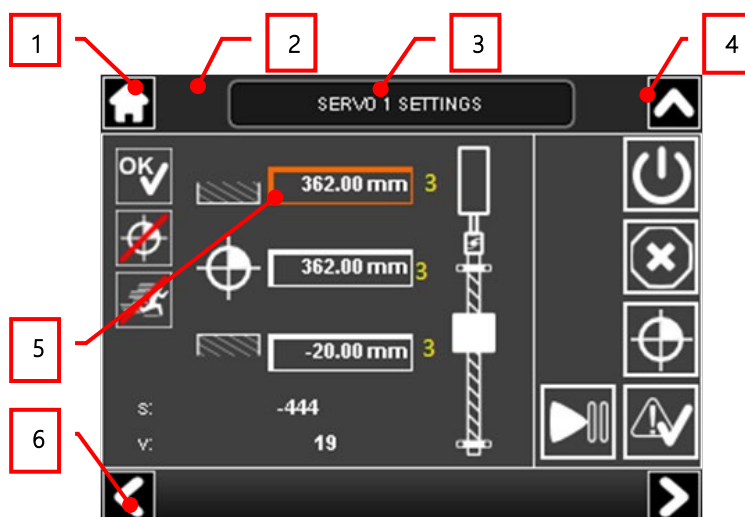
F1 – F3		Context button The function is assigned according to the current screen of the LCD.
1	ACK	ACK Button Quoting – malfunction confirmation. If the malfunction is not confirmed, the operating cycle cannot be started
2		Controlling the upper clamping at the feeder (optional equipment) 2 – loosen 3 – fasten
3		
4		Controlling the upper clamping at the main vice (optional equipment) 4 – fasten 5 – loosen
5		
6		Arm movement By pressing the button the arm starts moving in the corresponding direction 6 -upwards 7 - downwards To move the arm it is necessary to keep the button pressed
7		
8		Feeder movement For the time the button is pressed, the feeder moves in the chosen direction 8 - away from the saw 9 – to the saw If the machine is not referred, the feeder moves in micro steps (slowly)
9		
10		Micronisation (optional equipment) Press to start/stop cooling the band with micronisation
11		Emulsion cooling By pressing the button you will start/stop the emulsion cooling pump

12		Tightening/loosening of the main vice
13		12 - tighten 13- loosen
14		Controlling the feeder vice (optional equipment)
15		2 – fastening 3 - loosening

3.3. Machine control elements

3.3.1. The basic description of the screens of the control software

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!



(Picture for information only)

Meaning of icons on the touch screens:

1 – return to the main screen

2 – 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..

3 – selected menu name

4 – return to the nearest higher screen in the hierarchy

5 – parameter setting window

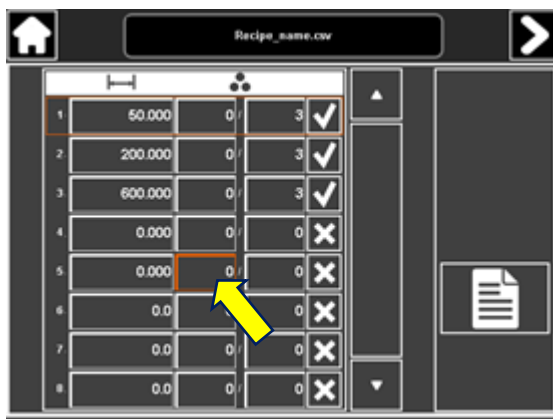
6 – browsing between screens at the same hierarchical level (e.g., if parameter control or setting is divided into several screens or if there are more elements controlled or more units to set service parameters)

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

To fill in numeric values or letters, the parameter setting window is used – see, for example, No. 5.

If the window is coloured, it is active for entry of parameters.

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



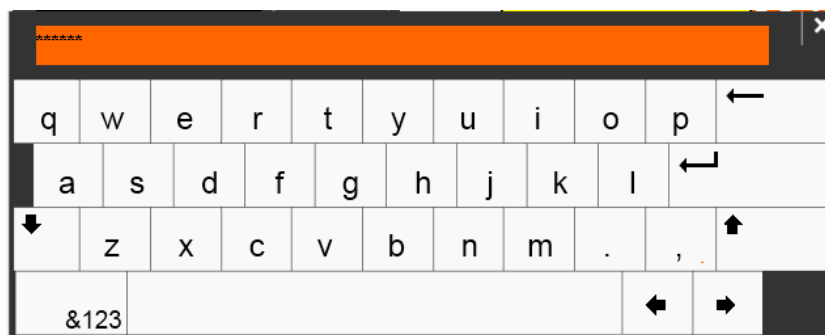
3.3.2. Touch screen keyboard

Keyboard types:

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



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



The combined keyboard enables choice whether to display:

- numeric keyboard – selection 0-9



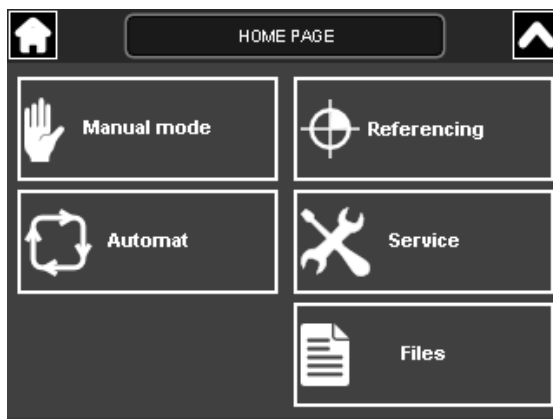
- or a pertinent part of the alphabetic keyboard (A-P or Q-Z)



Pos.	Funkce
	Keyboard closing without saving the data entered
	Deletion of data entered in the keyboard window
	Keyboard closing with saving the data entered (confirmation of the value entered)
	Shift function (capital letters and upper case)
	Caps Lock function

3.3.3. Main screen of the control software, machine modes

The main screen of the control software shows the basic menu for selection of working modes, setting modes and machine referencing modes.



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)
- **Automatic mode** – used to execute the entire cutting cycle automatically according to the recipe entered

Referencing mode:

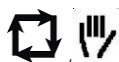
- **Referencing** – used to reference the machine – that is, after setting the machine in the operating state.

Setting modes:

- **Service** – used to set the machine parameters
- **Recipes** – used to set the recipes for the course of the automatic mode

Display of the control software main screen

- The main screen is displayed when the machine is started if the mode selector is in the manual or automatic mode position.



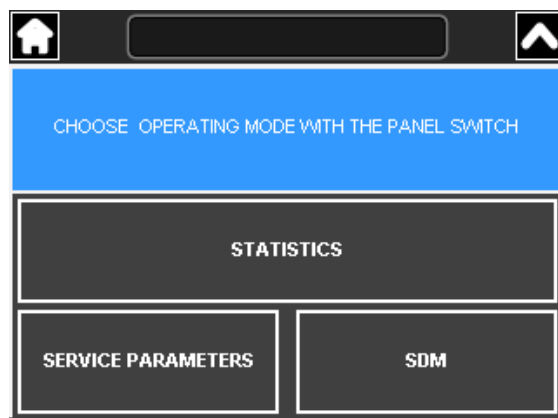
- It is also possible to initialize the main screen using the selection  from any screen of control software.

3.3.4. Auxiliary screen of the control software

The auxiliary screen appears after the machine start-up if the mode selector is in the "0" position.

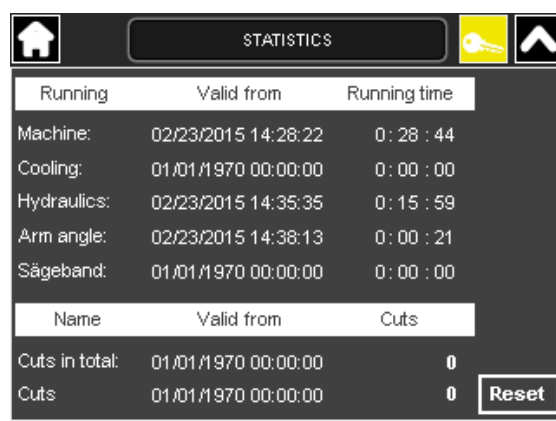
This screen provides access to the machine diagnostics.

This screen also enables opening of the menu screen for setting of service parameters.



Pos.	Function
CHOOSE OPERATING MODE WITH THE PANEL SWITCH	Instructions for further procedure
STATISTICS	Statistic data of the machine
SERVICE PARAMETERS	Setting and modification of service parameters for the cutting process.
SDM	Management diagnostic system – system of the device diagnostics, used for service only

Statistic data of the machine



Running	Valid from	Running time
Machine:	02/23/2015 14:28:22	0 : 28 : 44
Cooling:	01/01/1970 00:00:00	0 : 00 : 00
Hydraulics:	02/23/2015 14:35:35	0 : 15 : 59
Arm angle:	02/23/2015 14:38:13	0 : 00 : 21
Sägeband:	01/01/1970 00:00:00	0 : 00 : 00

Name	Valid from	Cuts
Cuts in total:	01/01/1970 00:00:00	0
Cuts	01/01/1970 00:00:00	0

Reset

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 "Switching on the machine and safety circuits")
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 band 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)
6. Executing another cut or cutting cycle, or end of cutting and switching the machine off

Manual control of the individual machine elements – see chapter "Manual mode".

3.5. Machine referencing

Caution !

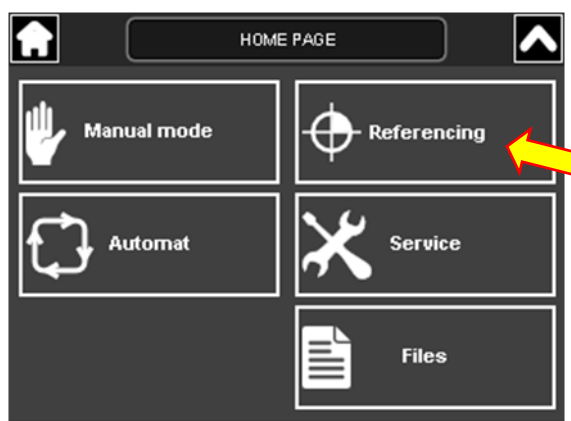
Before starting the referencing, remove all material from the saw and feeder. Do not reference the machine, if there is any material clamped in any of the vices..

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..

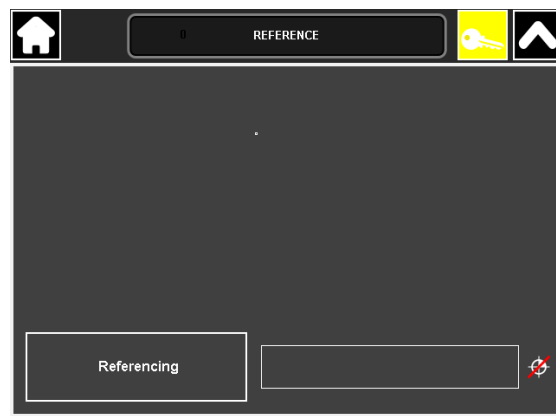
1. Turn the **mode selector** to the manual mode position  or to the automatic mode position. .

Referencing will not be done if the mode selector is in the "0" position!

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



3. This screen appears to display the referencing process:



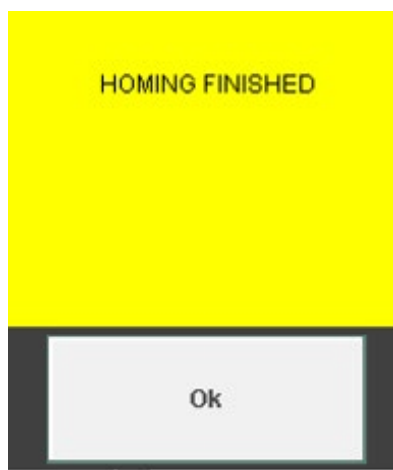
Pos.	Funkce
	Start of referencing process.
	Status bar Referencing process course initialization When referencing is completed, the status bar returns to the beginning.
	Referenced
	Not referenced

4. By pushing the **"Referencing"** 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.

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

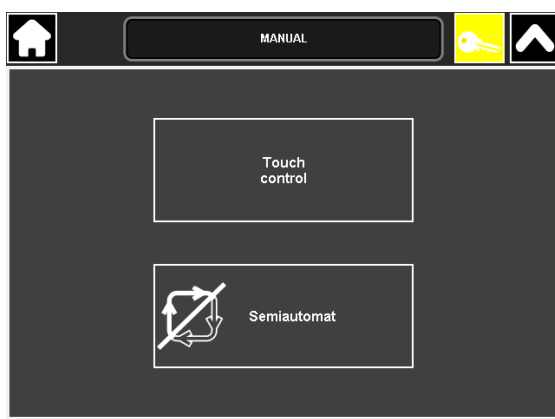
3.6.1. Machine control in the manual mode

The manual mode is intended for manual control of the individual machine elements.

Caution!

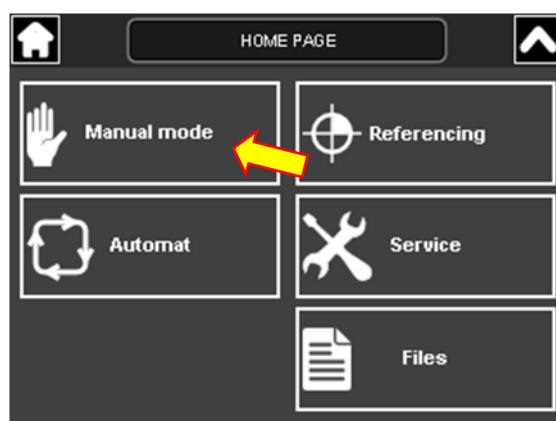
Pay increased attention when moving the material towards the saw, there is the risk of collisions particularly during manual operation!

1. To switch the machine into the manual mode, turn the **mode selector** to the manual mode position  .
2. A screen with the options appears:
 - „Touch control” – to control the saw functions
 - „Semiautomatic” – to control the saw in the semiautomatic mode



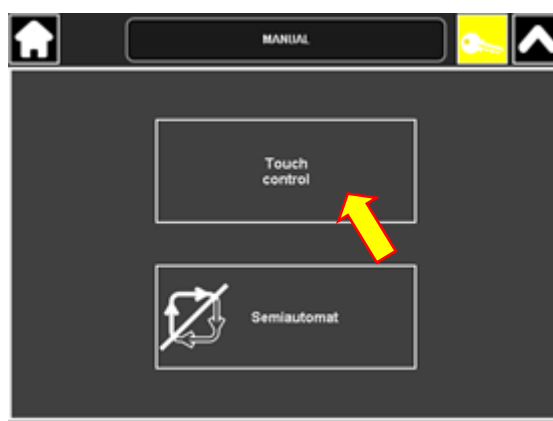
Note:

To display this screen, you can also choose the option for manual mode initiation on the main screen of the control software:

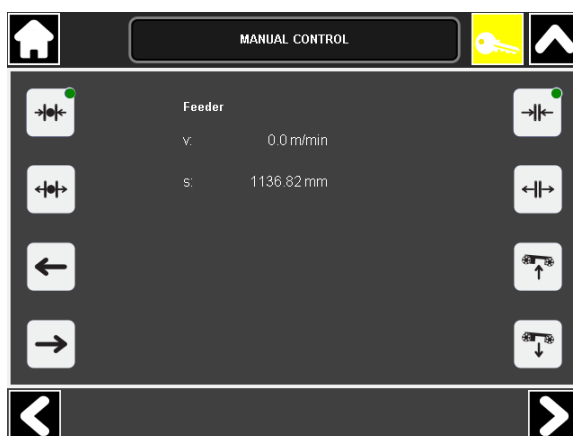


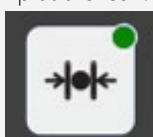
But control elements aren't functional if the mode selector isn't in manual mode position  !

- To control the machine manually, choose the „Touch control” option on this screen



- The following screen is used for manual control of the saw:



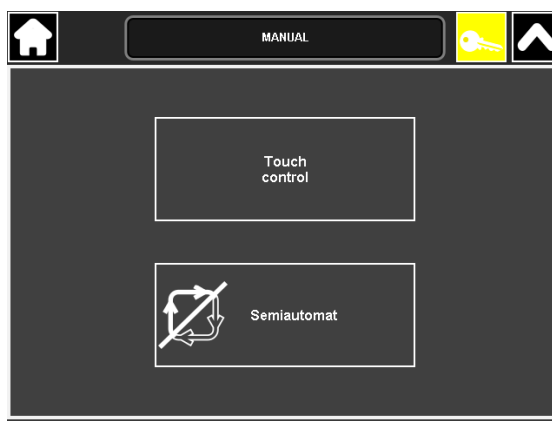
Pos.	Funkce
	Feeder vice open / close Vice clamping is indicated by lighting the green lamp at the icon. 
	Feeder movement from/to the saw

Pos.	Funkce
	Main vice open / close Vice clamping is indicated by lighting the green lamp at the icon. 
	Arm upward movement. The button must be pushed continually for the movement time. If the button is released, the movement stops.
	Arm downward movement The button must be pushed continually for the movement time. If the button is released, the movement stops.
Feeder v: 0.0 m/min s: 1136.82 mm	Course of feeder movement – current speed
Feeder v: 0.0 m/min s: 1136.82 mm	Course of feeder movement – current position

3.7. Semiautomatic mode

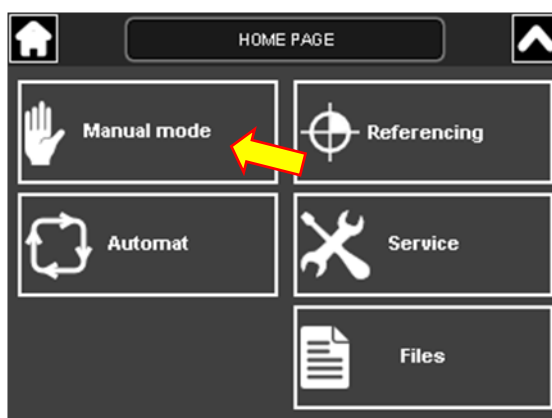
3.7.1. Cutting execution in semiautomatic mode:

1. In the manual mode, **move the arm all the way up**
2. In the manual mode, **open the saw vice and feeder vice sufficiently** with regard to the width of the material loaded.
3. To switch the machine to the semiautomatic mode, **turn the mode selector to the manual mode position** 
4. This screen with the options appears:
 - „Touch control” – to control the saw functions
 - „Semiautomat” – to control the saw in the semiautomatic mode



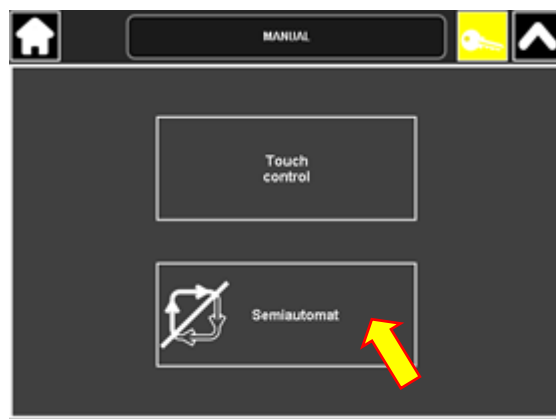
Note:

To display this screen, you can also choose the option for manual mode initiation on the main screen of the control software:



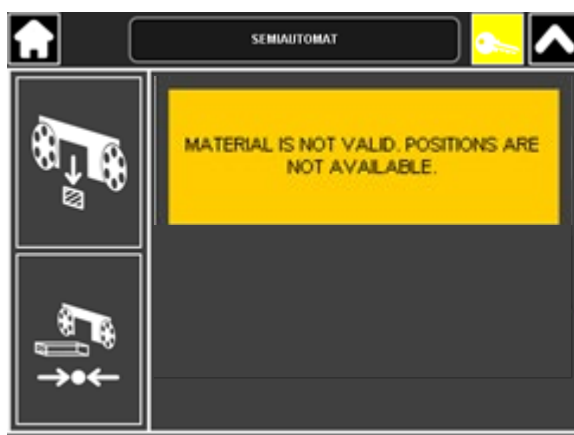
But control elements aren't functional if the mode selector isn't in manual mode position  !

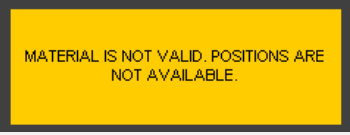
5. To initiate the semiautomatic mode, choose the "Semiautomat" option in this screen



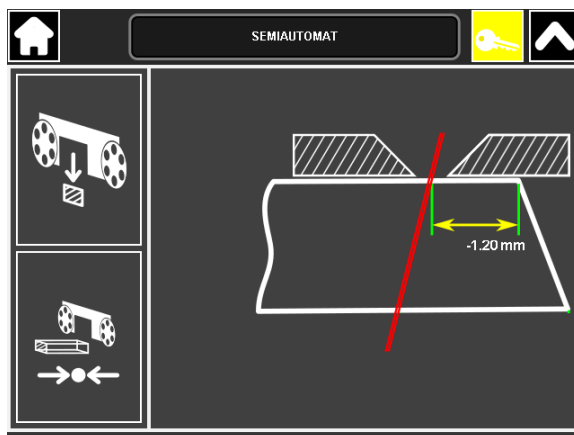
6. The screen appears for control of the machine in the semiautomatic mode, in one of the following variants, a) or b):

- a) Invalid material

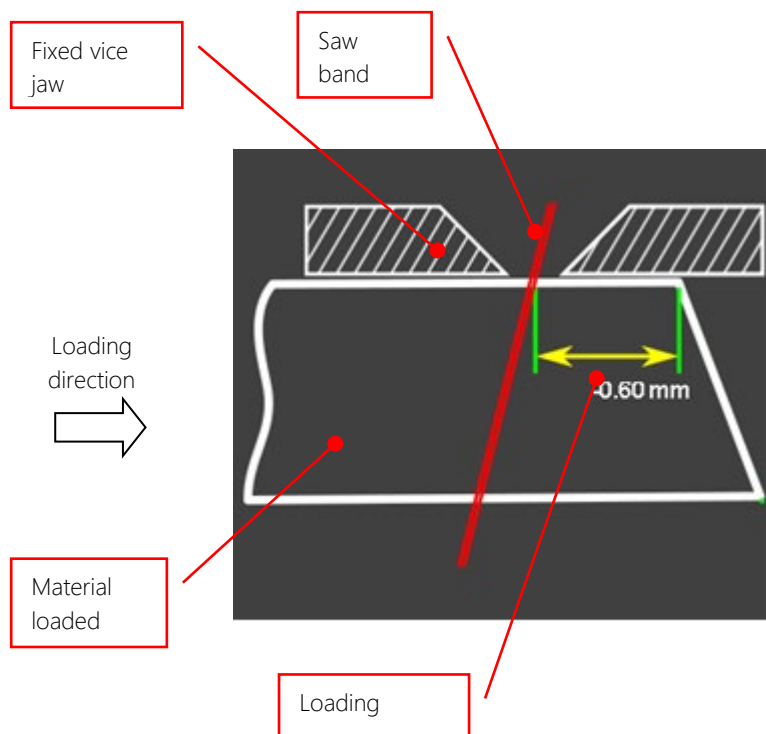


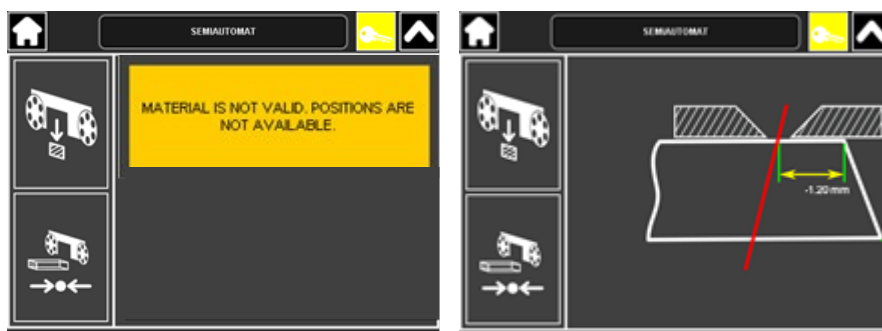
Pos.	Function
	Information that the machine has no information on the material face position.: Without a valid material, the semiautomatic mode enables: - entry of parameters - rotation of the arm by the given angle - cutting of material without a length entered To load the given material length in the semiautomatic mode, the material must be valid. Before loading the required material length, cut the material in!

a) valid material



If the material is valid, a sketch of the current state is shown in the box on the right side of the screen





Pos.	Function
	Option for length loading
	Semiautomatic cut setting

Options in the left screen column – options for setting the length loading and initiation of the screen for cutting start – they are only accessible if the mode selector is in the manual mode position!

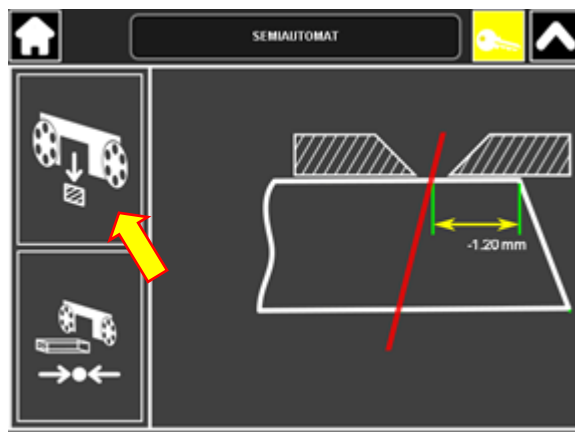
7. Insert material

The material can be loaded

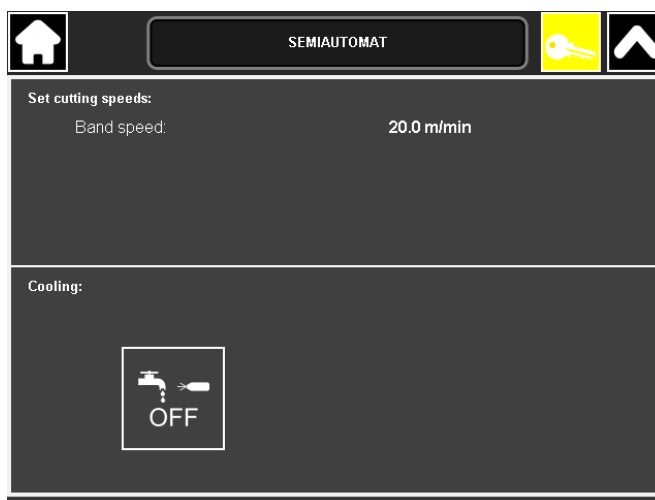
- with a manually controlled feeder – to the estimated length.
After loading, the material must be clamped in the main vice by means of the manual control
- with an automatically controlled feeder to the given length – see "Loading the required material length in the semiautomatic mode"

8. Set the cooling method

The material cooling method can be set in the semiautomatic-setting screen which appears after you choose the option for setting the semiautomatic cut in the screen for the machine control in the semiautomatic mode



Screen for setting the semiautomatic cut



Pos.	Function
Set cutting speeds	
Band speed	Set band speed
Cooling	

Pos.	Function
	Cooling method You can choose the cooling methods by repeatedly pushing.
	 - liquid cooling
	 - Micronizer cooling
	 - without cooling

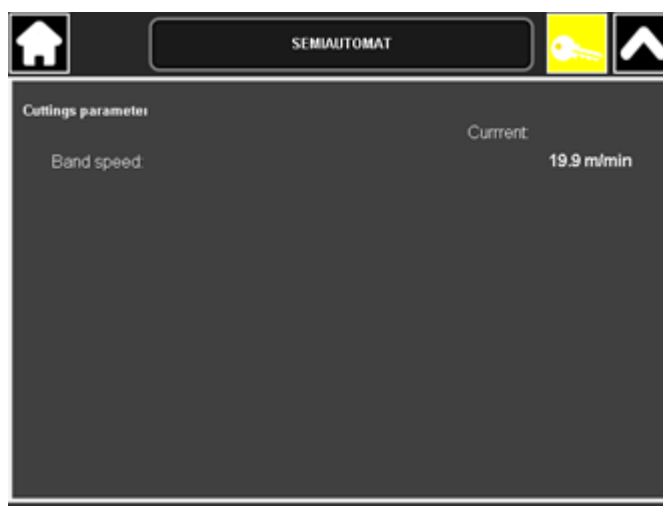
9. Set the arm starting position above the material to start the cut

After cutting in the semiautomatic mode is completed, the arm automatically returns to the position at which the cut was started; from this position, another cut can be started.

To set this position, move the arm (approx. 10 cm) above the material before starting cutting in the semiautomatic cycle by means of the manual control button on the control panel.

10. By means of the potentiometer on the saw control panel, **set the required cutting speed**
11. By means of the potentiometer on the saw control panel, **set the speed of the arm descent to cut**
12. By pushing the **START** button on the control panel, **start cutting**.
13. **After pushing START – semiautomatic cut process:**
 - a) The saw band starts up and the arm starts feeding to cut.
 - b) While the arm is descending to cut or even during cutting, you can adjust the saw band speed, speed of arm descent to cut and by means of the control elements on the machine control panel
 - c) On the control panel display, a screen appears with information on the cutting process.

Screen with information on the semiautomatic cut process



Pos.	Funkce
Cutting parameters	
	Set
Band speed	Set band speed
	Current
Band speed	Current band speed

14. After cutting in the semiautomatic mode is completed:
 - the arm automatically returns to the position at which the cut was started.
 - Completion of cutting in the semiautomatic mode is indicated by a message on the control panel display that the cut has been completed.
15. Remove the cut-off. Now you can repeat the entire procedure.

3.7.2. Loading the required material length in the semiautomatic mode

If the saw arm is turned so that it intervenes to the path of the feeder, the feeder automatically stops before collision. In this case the shortest length of the material loaded is longer than the length of the material loaded if the arm is turned so that there is not collision.

Attention!

Size of burr and unevenness of the material face has an effect on the precision of the length loaded by the feeder!

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.

1. If the machine reports invalid material before starting to load material to the required length in the semiautomatic mode:



- Make trim cut of the material

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

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

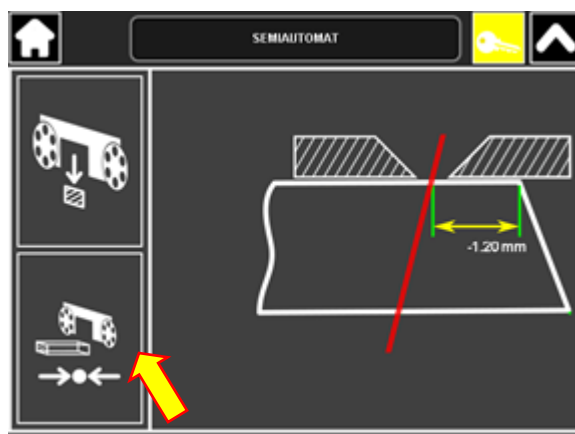
Attention!

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

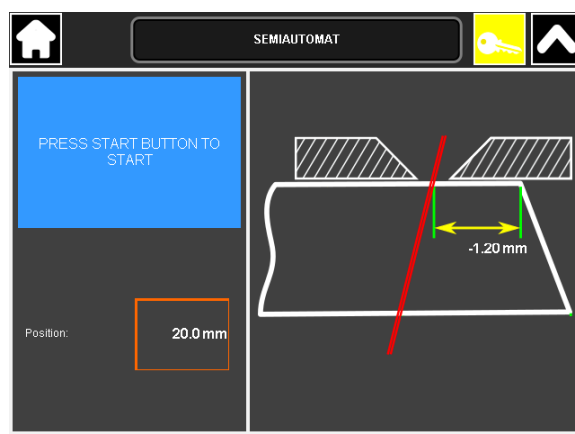
Attention!

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

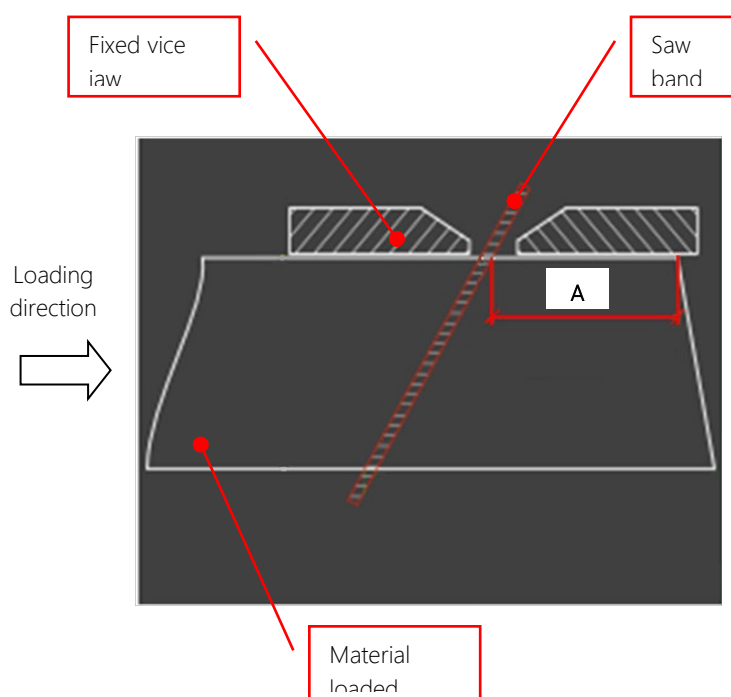
2. If the material is valid, choose the option for length loading



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



Pos.	Function
Position: 0.0 mm	Window for entry of the required length to be loaded. The length will be measured from the inlet end of the material to the outlet edge of the band – see Fig. 1 - dimension A.
PRESS START BUTTON TO START	Instructions for further procedure



Picture no.1

4. Enter the required length in the window for setting parameters on the screen for entry of the desired length to be loaded.
5. Push the **START** button to start loading of the material.

Caution!

Before the loading starts, the main vice must be opened sufficiently so that the material loaded does not collide with the vice jaw!

6. After the Start button is pushed to start loading of the material :
 - The feeder makes a movement to find the end of the material (if the material is detected with laser beam of the feeder, the feeder moves away from the saw, if the material isn't detected with laser beam of the feeder, the feeder moves towards to the saw).
 - the feeder clamps the material and loads it to the desired length
 - After loading, the material is automatically clamped by the main vice

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 TOTAL STOP button

- In emergency cases, push the **TOTAL STOP** button 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

3.8.1. Cutting execution in automatic mode

Caution!

Short pieces which the feeder cannot feed to the main vice cannot be cut in the automatic mode!

Imminent risk of collisions!

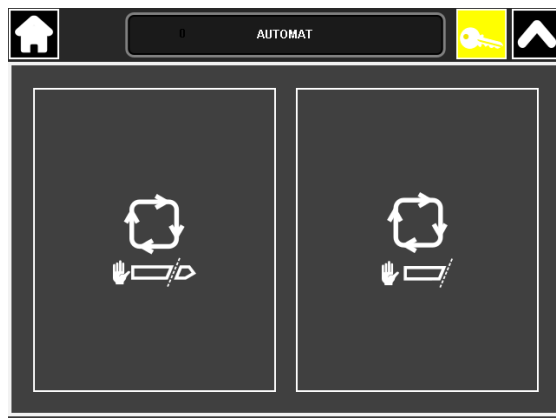
Caution!

Size of burr and unevenness of the material face has an effect on the precision of the length loaded by the feeder!

If the saw arm is turned so that it intervenes to the path of the feeder, the feeder automatically stops before collision. In this case the shortest length of the material loaded is longer than the length of the material loaded if the arm is turned so that there is not collision.

1. Turn the mode selector to the automatic mode position .

This screen appears with options for the material loading and cutting in



Pos.

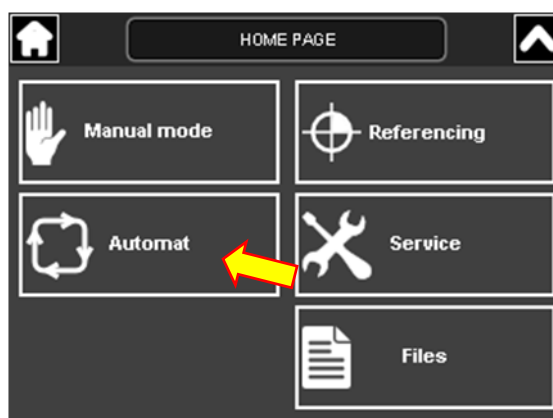
Funkce

Pos.	Funkce
	Manual loading of the material with cut-in - the first piece is loaded under the saw band manually - the cut-in length set manually (by estimation or measurement) - after cut-in, the automatic cycle is started automatically according to the given recipe - if an external loading system is installed, other pieces are loaded automatically and cut or not cut in according to the setting – see below
	This mode is only used: - if the automatic cycle has been interrupted and the operator wants to resume it - If an automatic cycle has been completed and the operator wants to continue in cutting the residual material, according to a different setting of the automatic cycle, however To continue in the interrupted cycle or cutting the same material without the necessity of cut-in, it is always necessary that the operator does not open the vices! (Spontaneous release if the hydraulics are switched off is not detrimental.)

Choose the method of material loading and material cutting in on this screen

Note:

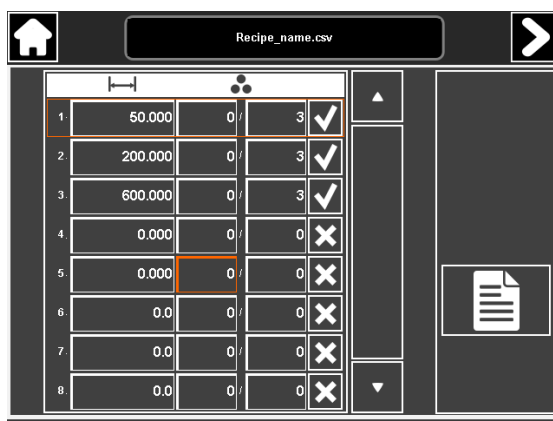
To display this screen, you can also choose the option for automatic mode initiation on the main screen of the control software.



But control elements aren't functional if the mode selector isn't in **automatic mode**

position !

- After you choose the loading and cut-in method, a screen appears for loading a recipe or entry of a new recipe.

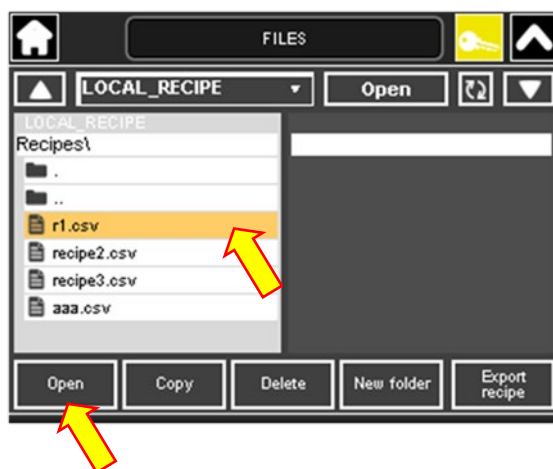


The selected recipe line is highlighted in an orange box.

To load a recipe or save the loaded recipe, choose the "Data" option



Further proceed in the way described in detail in the "Recipes" chapter – open and load the selected recipe by means of the "Load" option.



The recipe loading and modification screen also enables you to change the

selected recipe lines by checking  , them after executing the automatic cycle analogically to the recipe entry procedure.

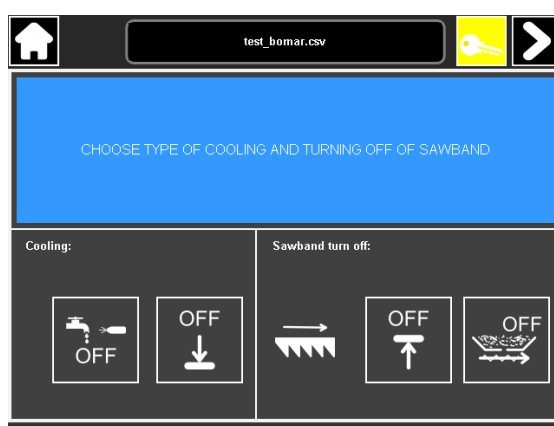
Attention!

If you do not save the modified or newly entered task (recipe) (see the "Recipes" chapter), the data entered will be lost the moment when you load another recipe.

The data entered after the last saving will not be lost if the machine is switched off or the cycle interrupted. (According to the operator's choice, only the information on the number of pieces cut may be lost – see information on cycle interruption).

The automatic cycle always starts with the first checked nonzero line, and continues stepwise with all of the following checked nonzero lines.

- By means of the browsing option  shift from the screen for recipe to the screen for **cooling selection and band switch-off**



Pos.	Funkce
	Cooling method You can choose the cooling methods by repeatedly pushing.
	 - liquid cooling
	 - Micronizer cooling
	 - without cooling

Pos.	Funkce
	Selection of the cooling switch-off method By repeated touch, you can choose the methods of cooling switch-off.  - switch-off if the arm is down  - switch-off if the arm is up
	State display  - band running  - band off
	Selection of the saw band switch-off method By repeated touch, you can choose the methods saw band switch-off.  - switch-off if the arm is down  - switch-off if the arm is up
	Swarf conveyer off/on

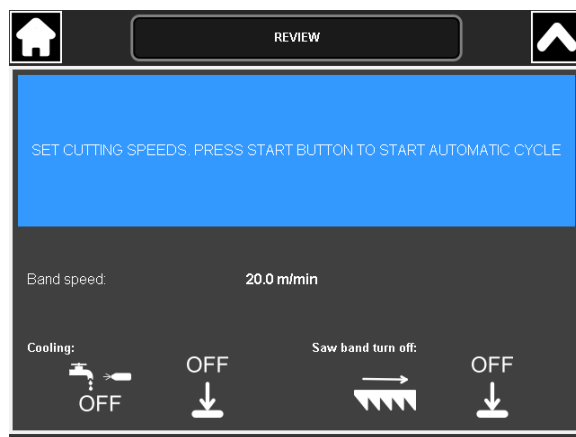
4. After setting all parameters, shift to the screen for the **automatic cycle start**.

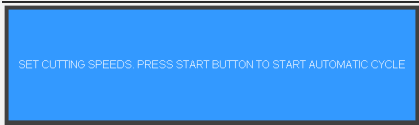
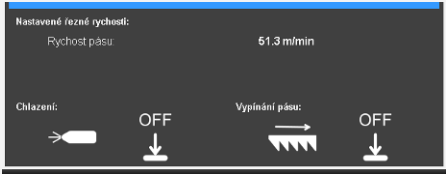
The screen for the automatic cycle start can be found by means of the browsing



option in the screen for cooling selection and band switch-off – if a mode without cut-in has been selected

The screen for start of automatic cycle:



Pos.	Funkce
	Instructions for further procedure
	Entered parameters display

5. Set the arm starting position above the material to initiate the cut

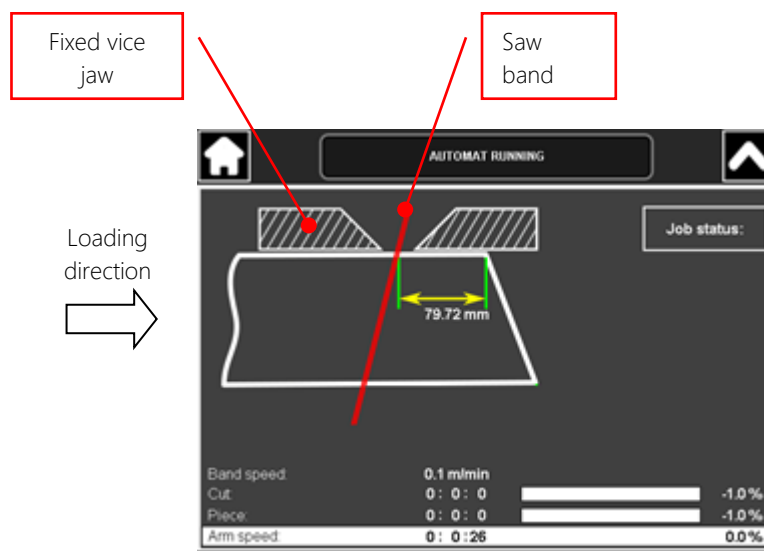
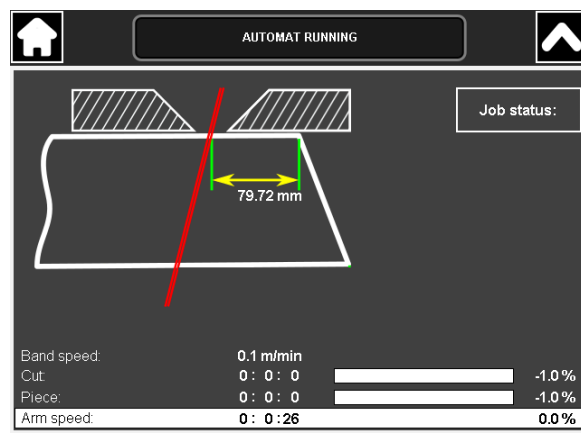
After finishing the cut in the semiautomatic mode, the arm automatically returns to the position at which the cut started; from this position, another cut can be started again.

To set this position, move the arm (approx. 10 cm) above the material by means of the manual control button on the control panel.

6. By means of the potentiometer on the saw control panel, **set the required cutting speed**
7. By means of the potentiometer on the control panel, **set the speed of the arm descent to cut**

8. Push the START button and start the automatic cycle

After the START button is pushed and the automatic cycle starts, a screen appears, showing the automatic cycle process

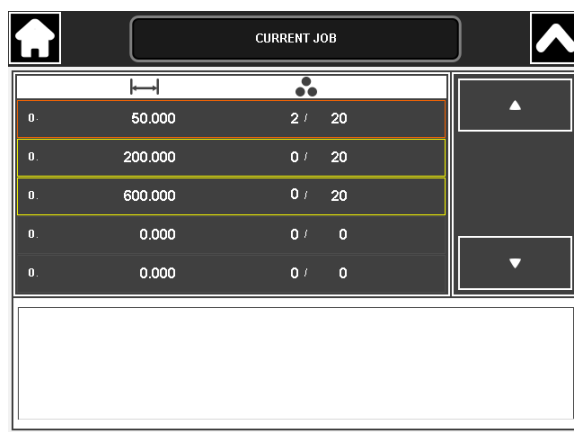


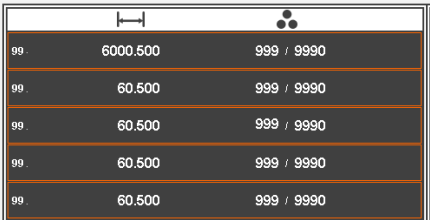
The horizontal dimension indicate the distance of the material edges from the band edges at the fixed and moving vice jaw – see the illustration in the screen.

Information on the course of cutting is at the bottom of the screen.

Pos.	Funkce
	Option for viewing the current order state After you push the "Material" option in the screen showing the automatic cycle process, a screen with the current order appears.

Screen showing the current order state



Pos.	Funkce
	Browsing between lines
	Currently loaded order Green line – currently cut Orange line – browsed up line
	Shape in the currently browsed up line (in orange box)

9. Automatic cycle process after pushing the START button

While the arm is descending to cut or even during cutting, you can modify the:

- saw band speed
- speed of the arm descent to cut

by means of control elements on the machine control panel.

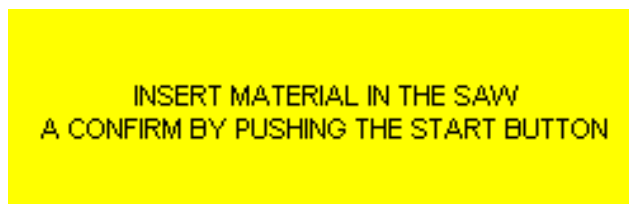
- Automatic cycle with manual material loading with cut-in m

Cautionr!

When manually loading the material with the feeder, pay increased attention to prevent collision between the material loaded and the main vice jaw. The main vice must be opened sufficiently!

After setting of the automatic cycle and its start with the START button:

- a) The operator is asked to insert the material.



- b) The operator confirms insertion of the material by pushing the START button.
- c) By means of the manually controlled buttons on the control panel, the operator transfers the material under the saw band, in which the cut-in length is defined.
- d) After loading the material under the saw band, push again the "START" button – cut-in will be started at the manually loaded material length.
- e) After cut-in, the cycle continues automatically according to the settings in the loaded recipe.

Firstly, the piece from the first checked nonzero line of the recipe will be cut.

The cycle continues stepwise with all of the checked nonzero lines of the recipe (for the cut in pieces with an identical cut-in length).

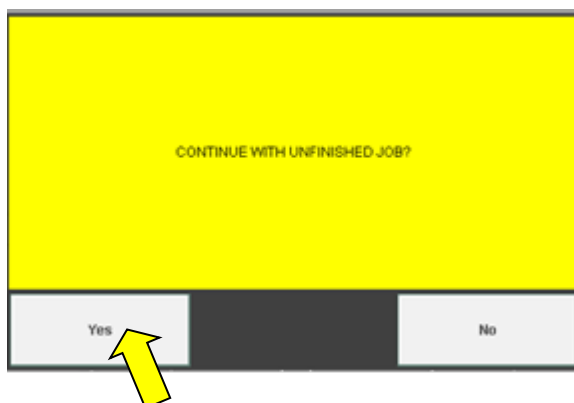
- **Automatic cycle with manual material loading without cut-in**

This mode is only used if the automatic cycle has been interrupted, not all of the pieces have been cut and the operator wants to resume the started cycle.

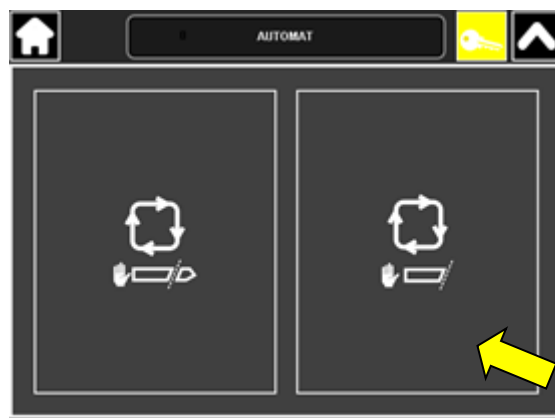
It is necessary for this mode that the material remains initiated (that is, the operator should not open the vices after the automatic cycle interruption).

- a) After the automatic cycle has been interrupted, the operator is asked whether to continue with the unfinished task:

To resume the started cycle, it is necessary to choose "Yes"



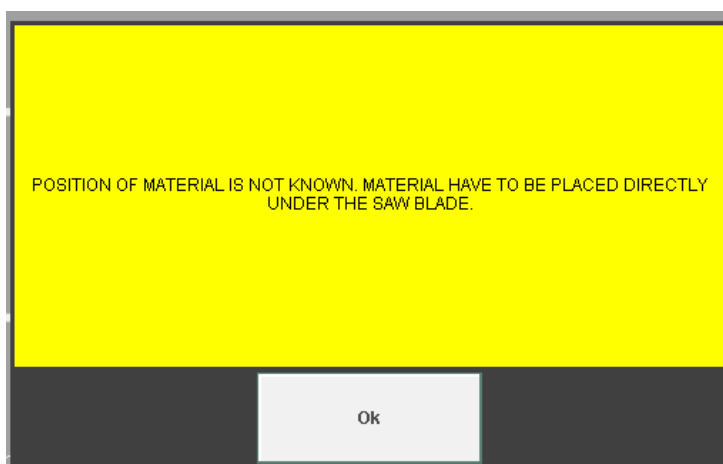
- b) After selection, the display shows a screen for selection of cut-in, in which the operator should choose **manual loading without cut-in**



- c) The screen with recipes appears, enabling the operator to:
- make alterations before the cycle continues
 - or directly, by means of the browsing options,  move on to the screen for starting the automatic cycle
 -
- d) Push START to initiate the automatic cycle – the cycle will proceed from the point at which it was interrupted.

NOTICE:

If the operator opened the vices after interruption of the automatic cycle and the machine lost information on the material, it will show a message after the START button is pushed to resume the cycle:



If you want to continue the cycle, confirm the message; the automatic cycle will start without cut-in of the material – this means that the saw feeds the material as if the cut-in had been done before feeding and the material had been aligned with the band before feeding.

If you do not want to continue with the cycle, shift to a mode other than automatic; thus you will cancel the unfinished cycle and be able to start a new cycle.

10. After completion of the cycle:
 - the arm automatically returns to the position at which the cut started
 - Finish of the cycle is announced on the display.
11. Remove the cut-off.
12. Now you can repeat the entire procedure.

3.8.2. Automatic cycle interruption

3.8.2.1. Procedure at the automatic cycle interruption (not „Pause“) if not all of the pieces have been cut through according to the task (recipe) set

1. After the automatic cycle interruption other than “Pause“, if not all of the pieces according to the task (recipe) set have been cut through by the moment when the automatic cycle was stopped; a screen appears with options for finishing the unfinished task or resuming the unfinished task.



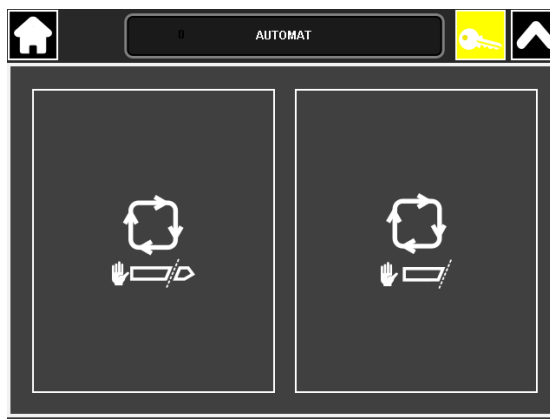
If you choose “Yes”

- the cycle can proceed from the point of interruption and the information on the number of cut pieces is kept.

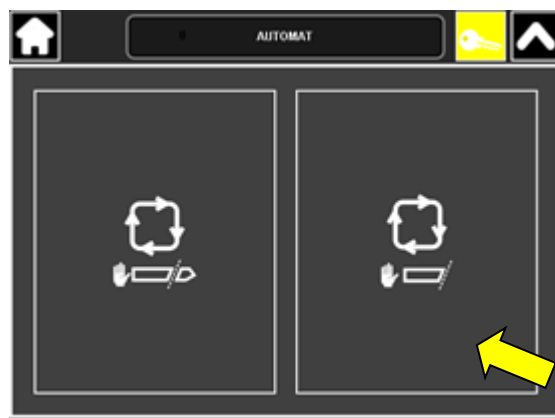
If you choose “No”

- the cycle can proceed from the point of interruption, but the information on the number of cut pieces is reset

2. If you choose Yes/No on the previous screen, a screen appears for starting the automatic cycle



3. If you want to resume the interrupted cycle, you should choose the option for the mode of manual loading without cut-in in this screen



- Further, see the Automatic cycle with manual loading without cut-in.
- In the mode of Automatic cycle with manual loading without cut-in, it is also possible to modify the recipe continuation.

If you do not want to resume the interrupted cycle, you can start another cycle in the screen for the automatic cycle start, move to another mode or switch off the machine.

3.8.2.2. Automatic cycle interruption with the STOP button

- **1 push - cycle interruption of the „Pause“ type**
- This interruption is only possible if the cut has not been started.
- After you push the Start button, the interrupted cycle will proceed from the point of interruption.
- **2 pushes – automatic cycle interruption**
- If the cut has been started, the machine does not respond to 1 push; the cut will be stopped only after the 2nd push of the STOP button.
- Double push of the STOP button can also be used to interrupt the automatic cycle at any other phase.
- After double push of the STOP button, if not all of the pieces have been cut through in the unfinished task, proceed according to the procedure above.

3.8.2.3. Automatic cycle interruption with the TOTAL STOP button

- In emergency cases, push the TOTAL STOP button on the control panel.
 - **1 push - interruption of safety circuits**
 - **- automatic cycle interruption**
1. Switch on the safety circuits again.
 2. If not all of the pieces have been cut through in the unfinished task, follow the procedure above.

3.8.2.4. Interruption of safety circuits

- Before the machine is restarted, the safety circuits must be switched on.
- Further, see the "Procedure of interruption (not the "Pause") of the automatic cycle if not all of the parts have been cut according to the given task (recipe)

3.8.2.5. Error

An error occurs during the automatic cycle and an error message appears on the control panel display.

- **To resume the interrupted cycle:**
 1. Remove the cause of the error.
 2. Confirm the error message.
 3. If not all of the pieces have been cut through in the unfinished task, and if it is enabled, follow the above procedure.
- If the screen for resuming the unfinished task does not appear after you have removed the error, you must start the cycle again.

3.9. Recipes

3.9.1. Creation of a new recipe and modification of an existing recipe

A new recipe can only be created by modification of the loaded recipe – that is, by creating a modified version of an existing recipe and saving this modified version under a different name.

An existing recipe can be modified in the same way (the modified recipe cannot be saved under the same name).

One recipe can only be entered for one material width.

If you cut more widths, you must gradually create and load a special recipe for every width.

In the recipe setting menu, you can set up to **21 lines**, each line corresponding to a series of pieces of the same shape, cut in sequence.

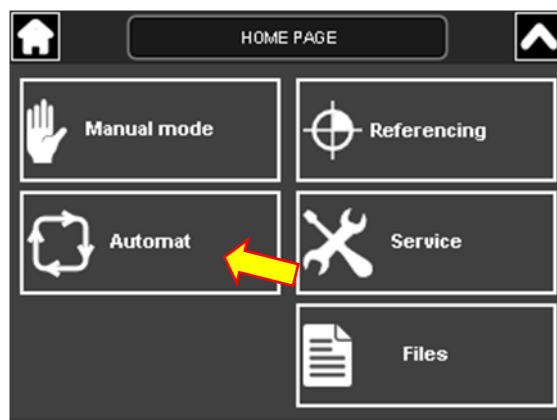
In this menu, you can also check the required lines to configure execution of a specific cutting cycle.

The created recipe can also be saved in the machine memory or an external memory – see below.

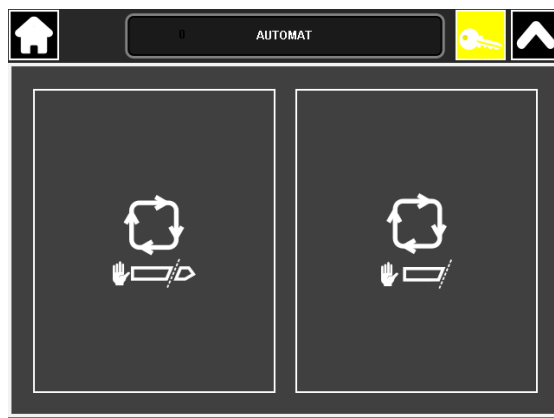
The automatic cycle always starts with the first checked nonzero line of the recipe, and proceeds stepwise by all of the following nonzero lines checked.

3.9.2. Procedure of a recipe creation (modification)

1. Switch the mode selector to the automatic mode position  and choose the option for the automatic cycle initiation on the main screen of the control software:



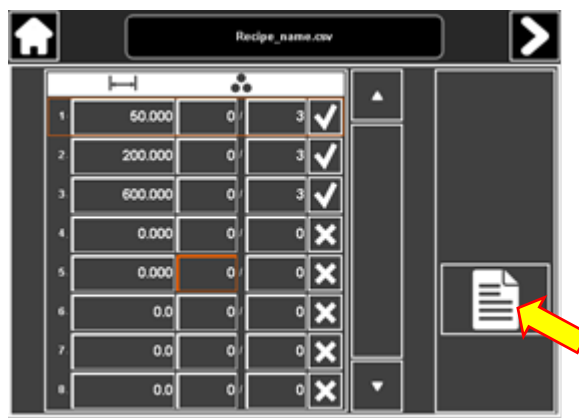
2. A screen appears with the options for material loading and cut-in

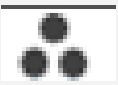


In this screen, choose the device, either as necessary or choose any option.

3. After you choose the loading and cut-in method, a screen appears for setting of a new recipe or modification of an existing one – loaded task (recipe)

Adjust either the currently loaded recipe on this screen or load a new recipe using the "Data" - see the procedure described in the section in the chapter about loading a saved recipe



Pos.	Funkce
	Browsing between lines The browsed up line is highlighted in an orange box
	Data – icon for work with recipes (saving, loading, deleting...)
	Cut piece length
	Required number of pieces / Number of pieces already cut
	 - cut the given recipe line  - not cut the given recipe line

The values in the browsed up line can be modified directly in the line boxes.

- After setting the recipe lines, you must set the recipe configuration for the specific cutting cycle process by checking the lines which are to be executed in the cycle.

Check the lines which you want to execute in the given cycle.



Cross the lines which you do not want to execute.



- Save the created recipe – see the chapter about saving of the recipe.

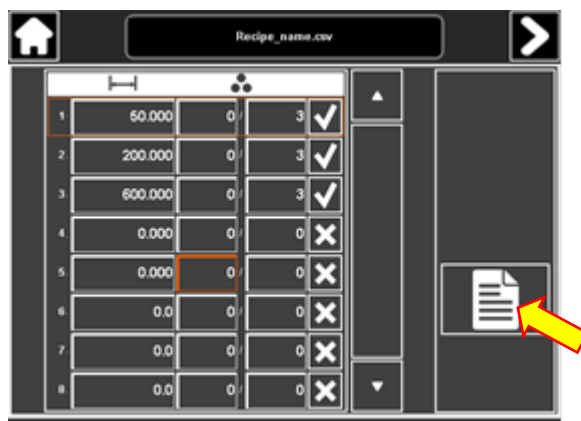
Attention!

If you do not save the modified or newly entered task (recipe), the data entered will be lost the moment when you load another recipe.

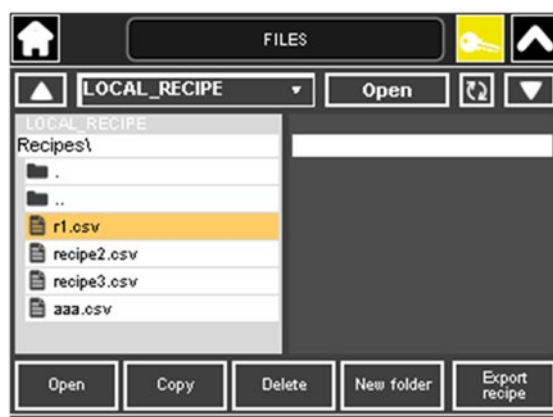
3.9.3. Saving the created recipe

If the created (modified) recipe is not saved, the entered data will be deleted when another recipe is loaded.

1. Compile a recipe by the procedure described in the chapter on the recipe creation.
2. In the screen with the created recipe, choose the Files option



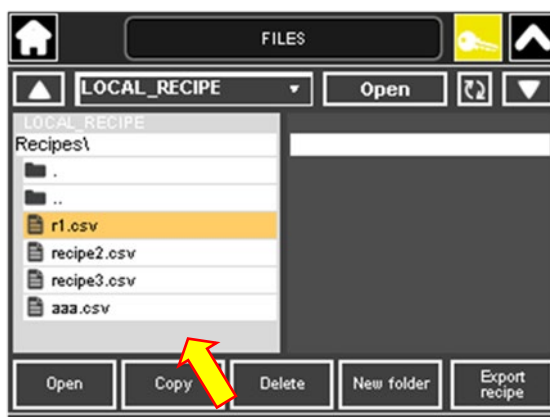
3. A screen appears for saving and loading of recipes.



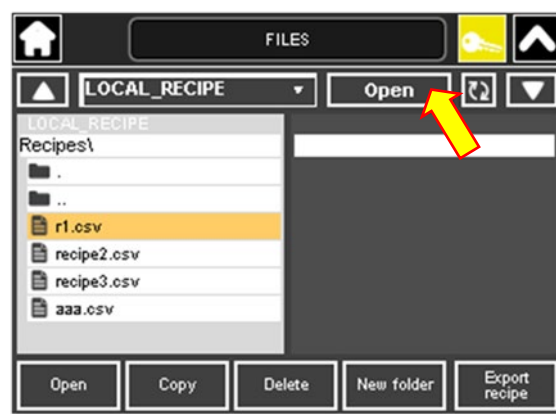
Pos.	Function
Open	open the marked folder or marked file
Copy	copy the marked folder or marked file
Delete	delete the marked folder or marked file
New folder	create a new folder
Export recipe	export the marked folder or marked file

Pos.	Function
	Pull-down menu for selection of disk (memory) for loading or saving By default, the Topline 510.350 DGANC machine only allows you to save in the internal memory of the machine.
	Open disk (memory) – selected in the pull-down menu
	Load USB By default, the Topline 510.350 DGANC machine only allows you to save in the internal memory of the machine.
	Browsing / marking a file / folder

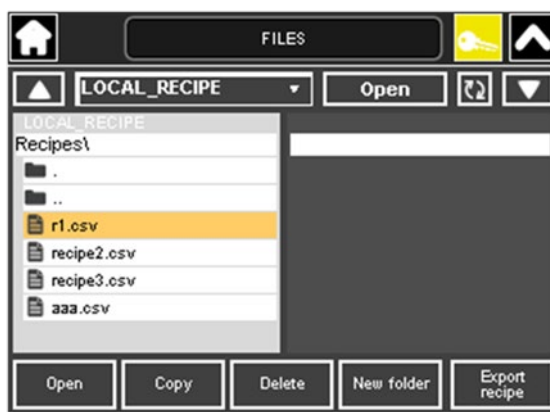
- By touching, choose the active side of the window to view the memory in which you are to save – the screen is backlit in light grey.



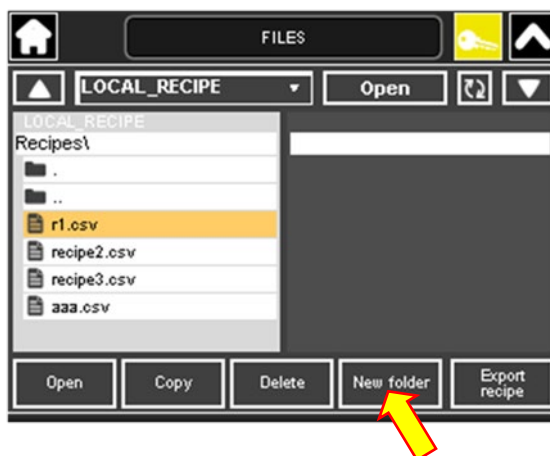
- In the pull-down menu, choose LOCAL_RECIPE– option for saving in the machine memory.



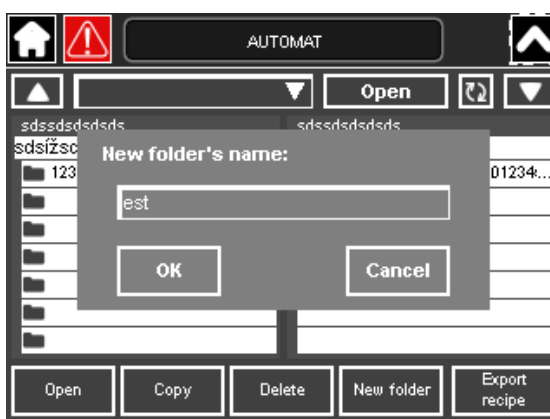
6. If the memory is not open, open it (Open – above) – its content will be displayed in the active (grey) window.



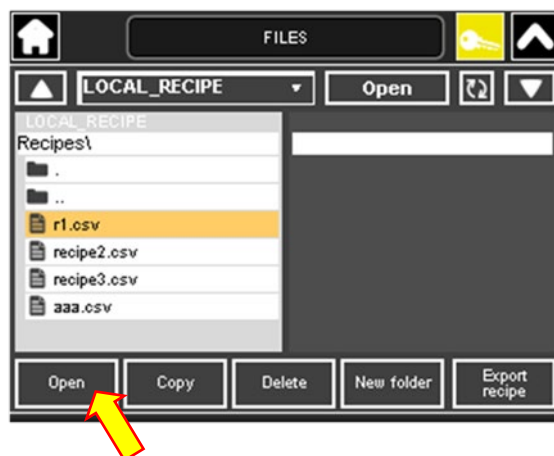
7. By means of the New folder option, you can create a folder in the memory to insert a file with a recipe sequence.



When creating a new folder, you will be asked to enter its name. The name can be entered after touching the coloured window with the keyboard on the display.

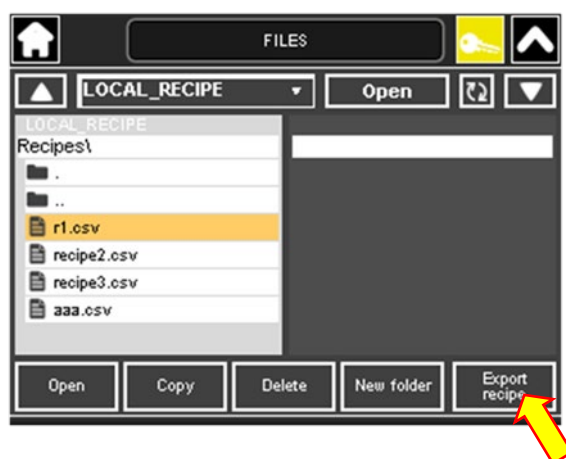


8. If saving in the folder, mark the pertinent folder; to open it, choose the Open option in the bottom left-hand corner.

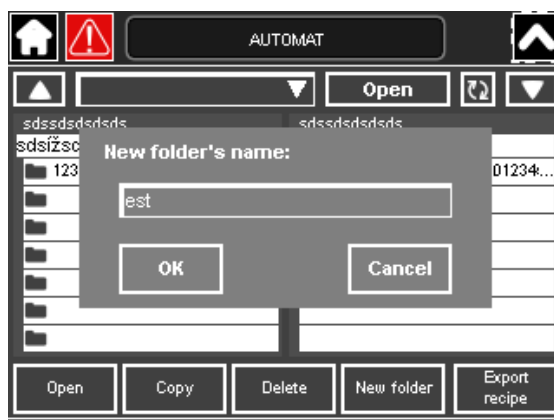


Otherwise the given sequence will be saved as a file in the memory directly.

9. Now you can save the prepared recipe in the pertinent open folder or memory by means of the Save recipe option.



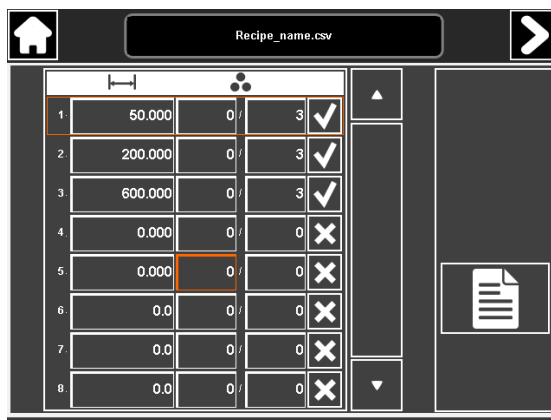
You will be asked to enter the file name under which the given recipe is to be saved.



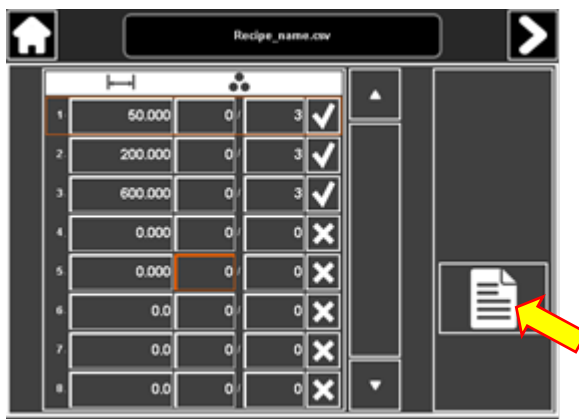
The prepared recipe will be saved in the selected place as a **file with the given name and the .csv extension**

3.9.4. Loading a saved recipe

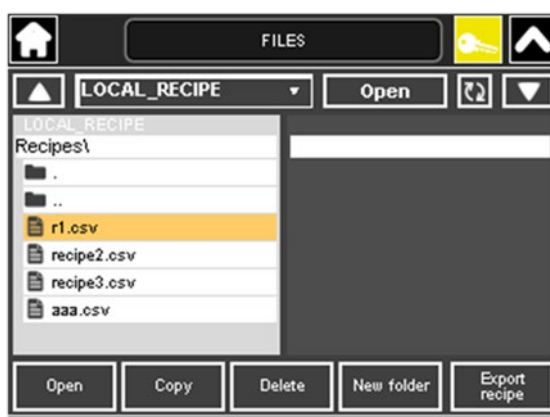
1. After the way of material loading and cut-in in the automatic cycle is chosen, a screen appears for loading a recipe, entering a new recipe or editing the loaded task (recipe)



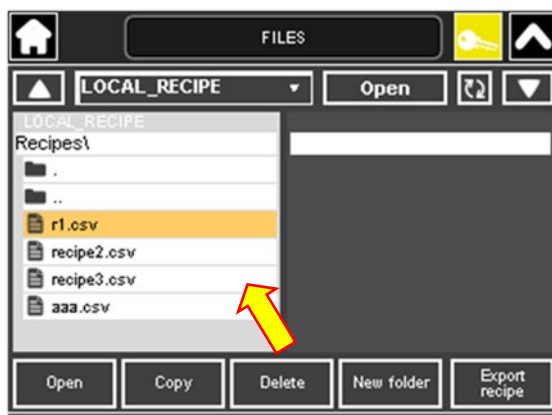
2. Choose the Files option on the screen showing the recipe



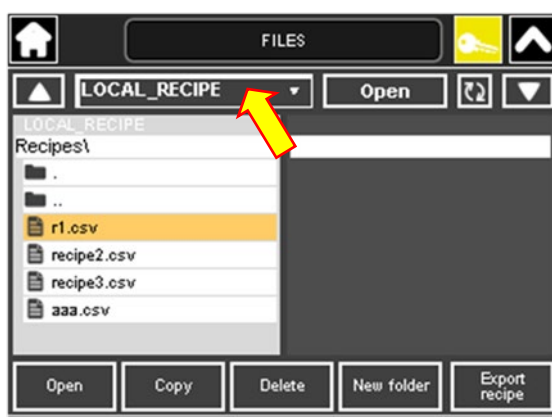
3. A screen appears for saving and loading of recipes



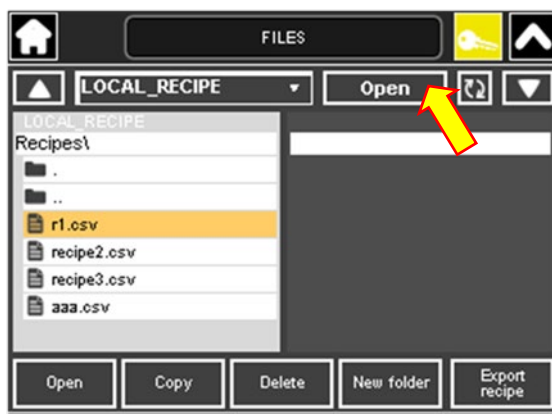
4. By touching, choose the window side which will be active to view the memory from which you want to load – the screen will be backlit in light grey



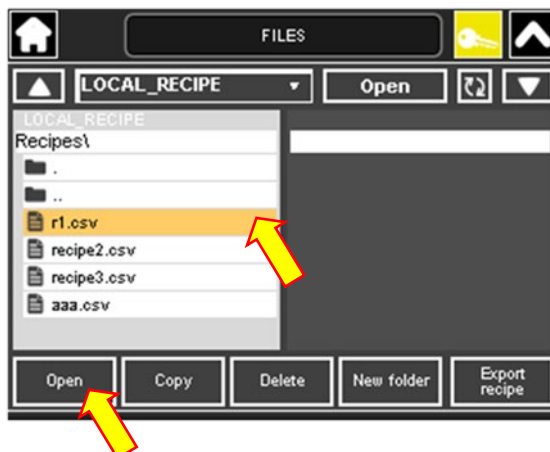
5. In the pull-down menu, choose LOCAL_RECIPES – to load from the machine memory.



6. If the memory is not opened, open it (Open – above) – its content will be displayed in the active (grey) window.

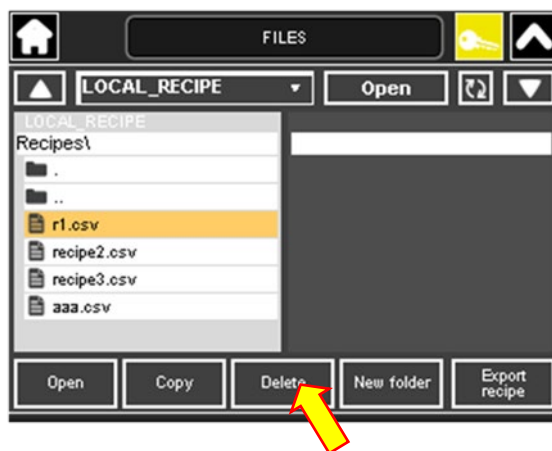


7. Browse up the pertinent recipe (.csv file) and open it with Open – left at the bottom.



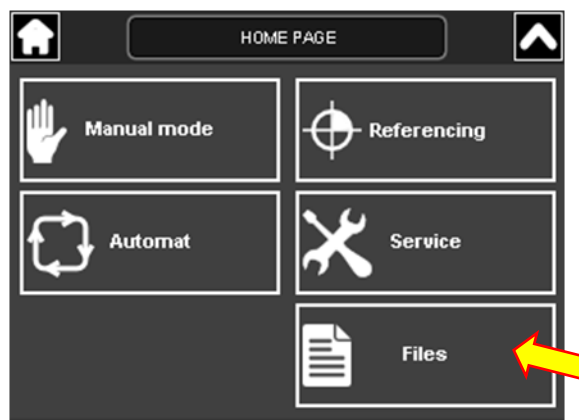
3.9.5. Deleting a recipe from the machine memory

1. Open the selected memory in which you want to delete by **analogical procedure** – see above.
2. Browse up the pertinent file or folder, mark and delete it with the **"Delete"** option.



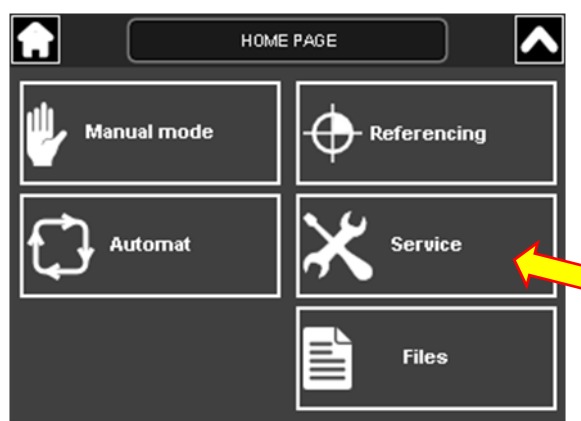
Note:

The recipe saving and loading screen can also be opened by means of the "Files" option on the main screen of the control software.

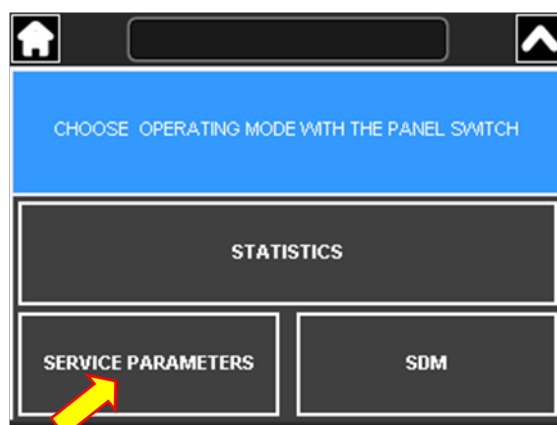


3.10. Setting of service parameters

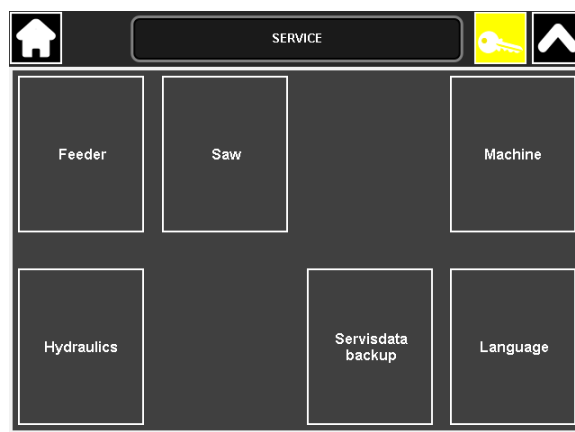
1. Choose the option for setting of service parameters.
 - in the main screen of the control software:



- or in the screen which appears on the touch display after you switch the mode selector to the "0" position.



2. A screen appears with options for selection of setting units.



3.10.1. 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.

The parameter setting options are protected by passwords at three hierarchical levels.

The password for the hierarchical level 1 is 1234

Parameters at the hierarchical level 2 can be set by a specially trained service engineer.

Parameters at the hierarchical level 3 can only be set by the manufacturer.

The icon for password entry appears at the top of the screen.

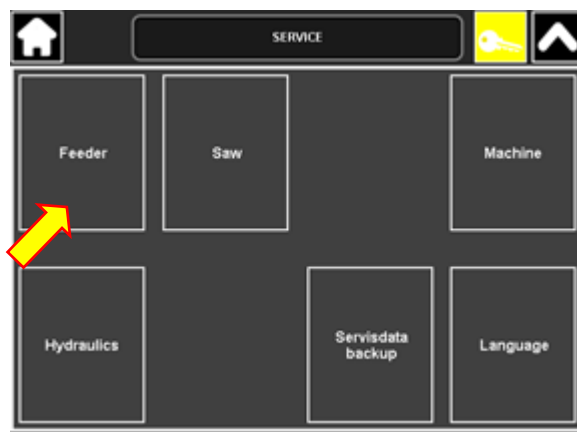


After touch, the menu for password entry opens up. The password can be entered any time during parameter setting.

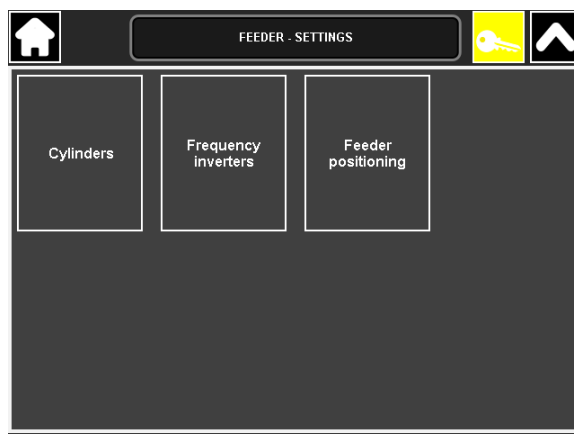
Again, you can enter the password with the keyboard activated by touching in the box for password entry.

3.10.2. Setting the feeder service parameters

1. In the screen for selection of setting units, choose the "Feeder" option.



2. The next screen contains options for setting the feeder units

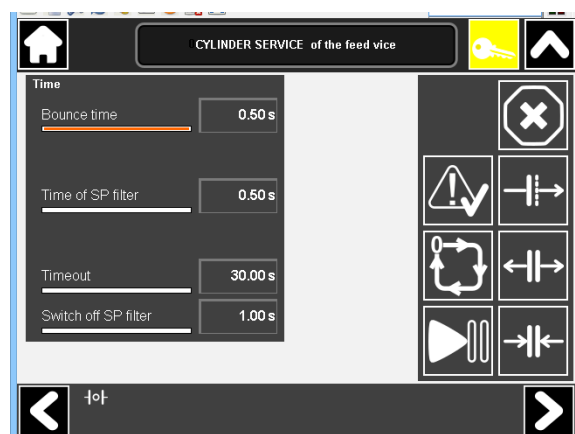


3.10.2.1. Feeder cylinder

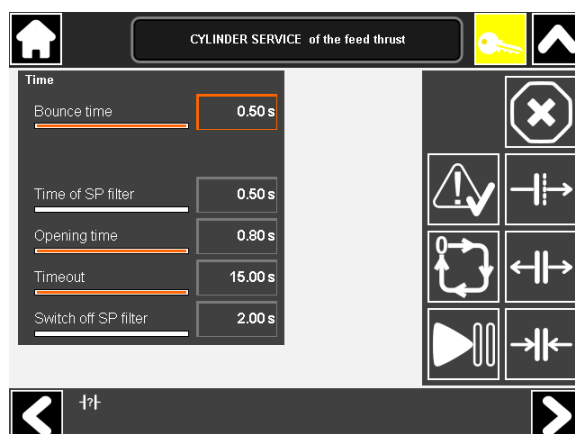


In the "Cylinders" service parameter under the service parameter settings, you can set the individual service parameters of hydraulic cylinders:

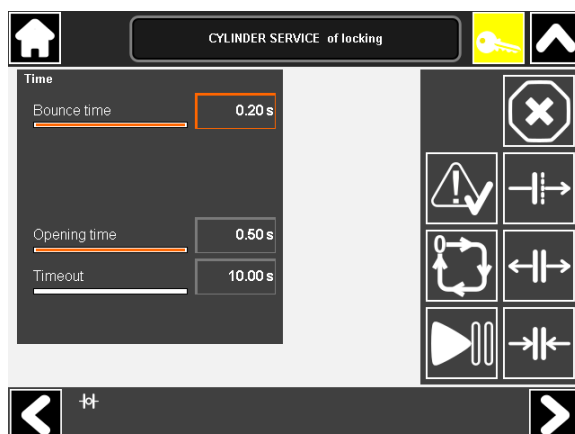
- feeder clamping jaws (hierarchical level 2)



- Upper thrust clamping jaws (hierarchical level 2)



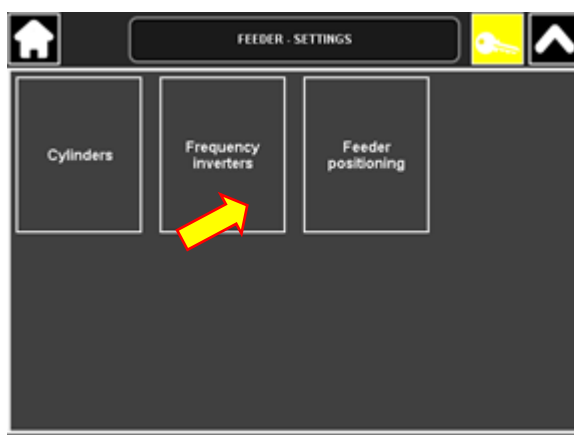
- locking (hierarchical level 2)



Pozice	Function
Bounce time	Vice cylinder bounce-off time
Time of SP filter	Switching filter time, filter for attenuation of overswings at the limit switch during movement toward the limit switch.
Opening time	Vice opening time
Timeout	Time limit for opening and closing of the vice
Switch of SP filter	Switching filter time, filter for attenuation of overswings at the limit switch, when leaving position
	Current state display  - vice is opening  - vice is closing  - unknown state
	Error message. If no error occurs, the error message box is empty.
	Error confirmation
	Restart, value settings remain.

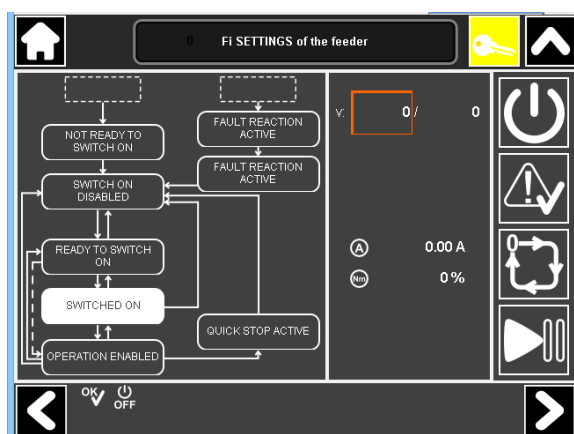
Pozice	Function
	Interruption and restarting the line.
	Stop
	Vice bounce-off
	Release vice
	Clamp vice

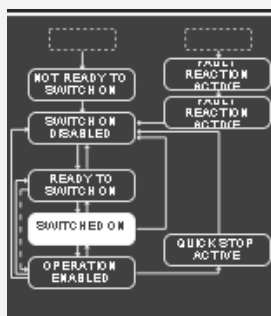
3.10.2.2. Feeder frequency converter diagnostics

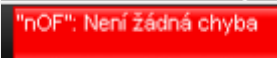


In the "Frequency converters" service parameter, parameters are displayed for diagnostics of the feeder frequency converter.

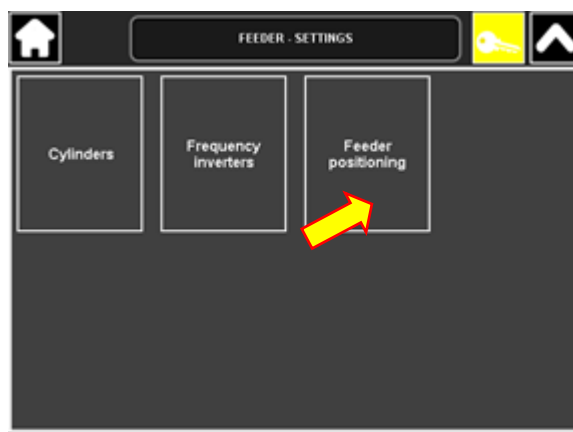
- Feeder frequency converter (hierarchical level 2)



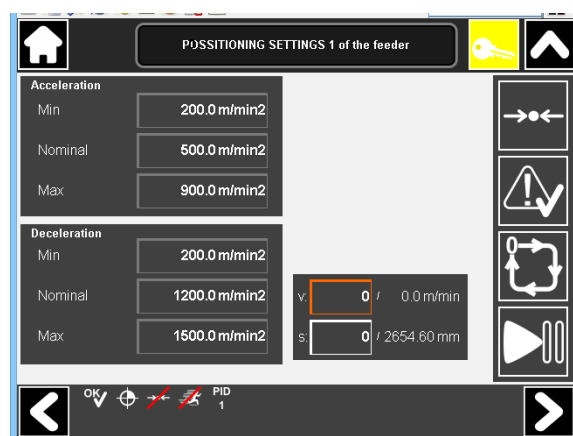
Pos.	Function
	State diagram of the current frequency converter
	- OK – start-up state of the frequency converter - Converter state: ON / OFF - Error message on the given frequency converter
	Entered / real converter speed 0.1 Hz or in rpm
	Current value of the current flowing to the motor

Pos.	Function
 100.0%	Current value of the motor torque, 0 to 100 %
	Error message. If no error occurs, the error message box is empty.
	Switch on / off the converter
	Error confirmation
	Restart, value settings remain
	Converter stop and restart

3.10.2.3. Feeder positioning parameters setting

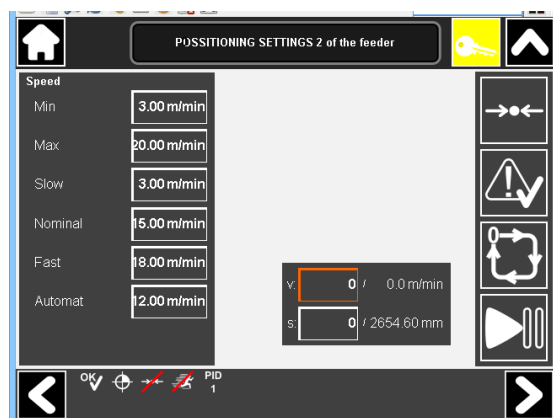


- Screen no.1 (hierarchical level 2)



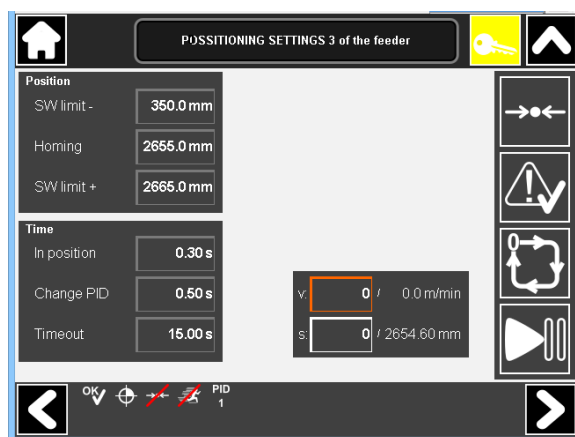
Pos.	Function
Acceleration Min 2 100.0 m/min² Nominal 2 1000.0 m/min² Max 2 2000.0 m/min²	Setting of unit movement acceleration in the given axis
Deceleration Min 2 100.0 m/min² Nominal 2 1000.0 m/min² Max 2 2000.0 m/min²	Setting of unit movement deceleration in the given axis

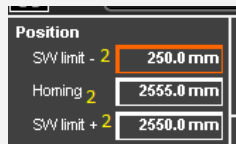
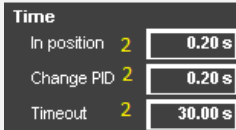
- Screen no. 2 (hierarchical level 2)



Pos.	Function
Speed Min 2 1.00 m/min Max 2 15.00 m/min Slow 2 5.00 m/min Nominal 2 15.00 m/min Fast 2 15.00 m/min Automat 2 10.00 m/min	Setting of positioning speed parameters - Minimum speed - Maximum speed - Low speed - Nominal speed - High speed - Speed in the automatic mod

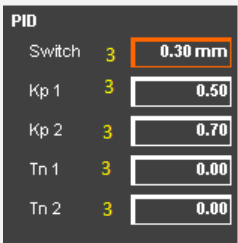
- Screen no. 3 (hierarchical level 2)



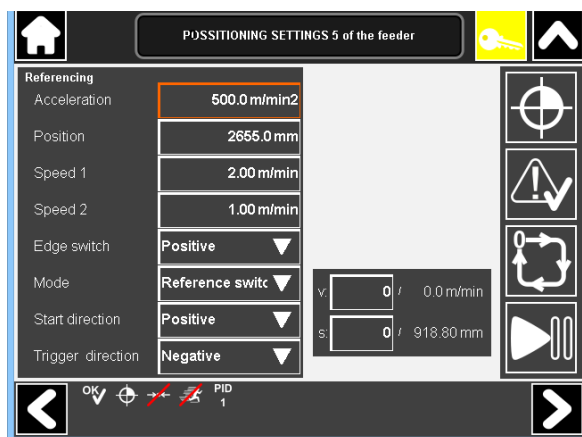
Pos.	Function
	Setting of minimum allowed unit position - Unit reference position - Maximum allowed unit position
	- The "in position" time value is the time for which the position must be in tolerance to finish the movement. - The "Change PID" time value is without function. - The "Timeout" time value is the time after which the regulator parameters are switched; after the double of the preset value, an error is reported, positioning is impossible.

- Screen no. 4 (hierarchical level 3)



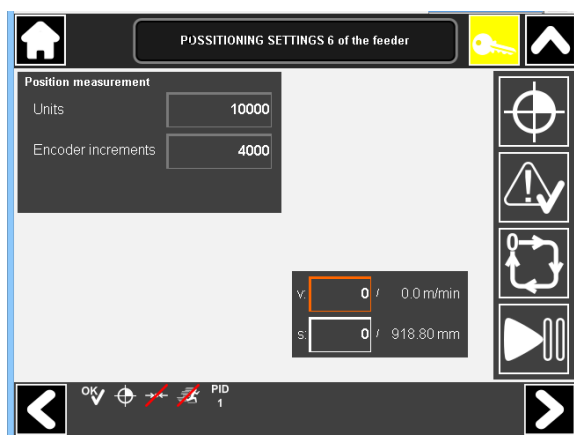
Pos.	Function
	PID regulator - Switch-over – position tolerance after switch-over of parameters - KP1 – parameter, proportional component 1 - Tn1 – parameter, integration component

- Screen no. 5



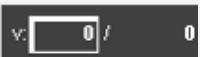
Pos.	Function
Acceleration (hierarchical level 2)	Unit acceleration at reference
Position (hierarchical level 2)	Unit reference position
Speed 1 (hierarchical level 2)	Speed at search for reference switch
Speed 2 (hierarchical level 2)	Speed of running from reference position
Edge switch (hierarchical level 3)	Edge at which movement stops during search for reference switch
Mode (hierarchical level 3)	Reference type • Directly to the reference switch • To the limit switch
Start direction (hierarchical level 3)	Feeder direction at referencing start • Positive – from the saw • Negative – to the saw
Trigger direction (hierarchical level 3)	Feeder starting direction • Positive – from the saw • Negative – to the saw

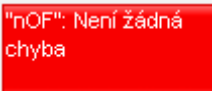
- Screen no. 6 (hierarchical level 3)



Pos.	Function
Units Encoder increments	Position measurement – used for measurement correction

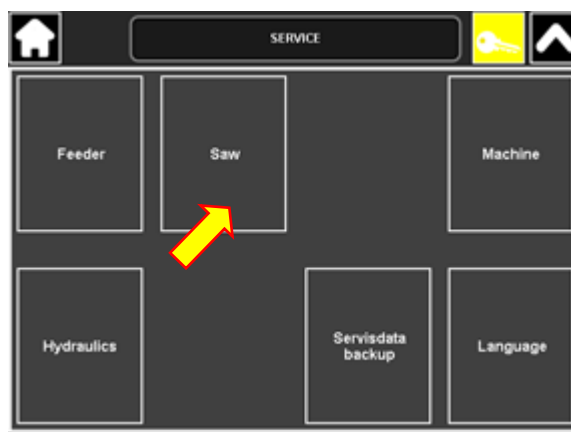
Meaning of other symbols on the screens for positioning:

Pos.	Function
	Unit prepared
	The unit is / is not referenced
	The unit is / is not in position
	Currently used PID regulator settings
	Entered / real unit speed
	Entered / real unit position
	Unit travel to position
	Error confirmation

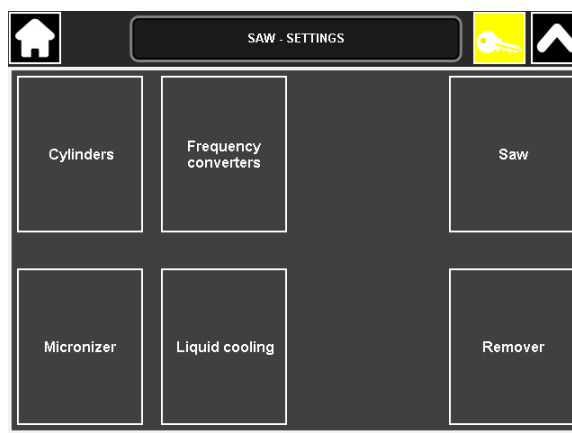
Pos.	Function
	Reset
	Stop and restart
	Error message. If no error occurs, the error message box is empty.

3.10.3. Setting of the saw service parameters

- In the screen for setting unit selection, choose the "Saw" option



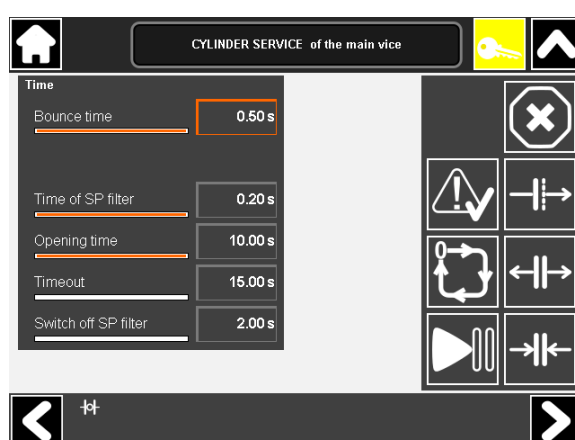
- The following screen contains options for the saw unit settings.



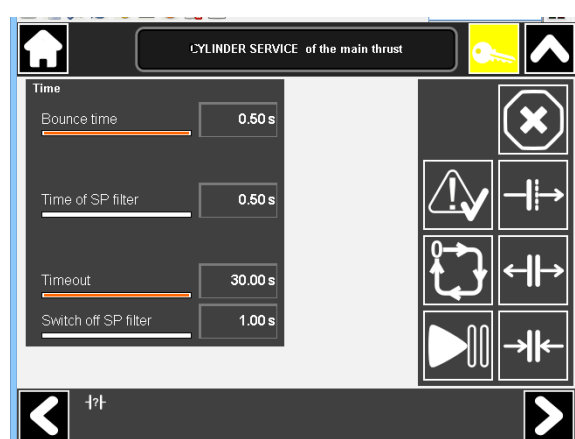
3.10.3.1. Service parameters of the saw hydraulic cylinders



- Screen no.1 – service of the cylinder of the main vice (hierarchical level 2)



- Screen no.2 - service of the cylinder of the main upper clamping (hierarchical level 2)

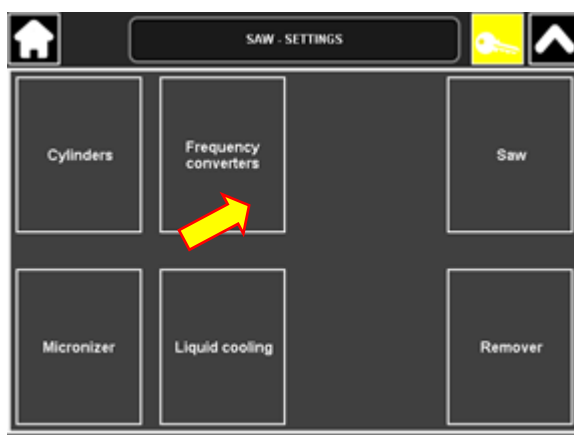


The description of the cylinder screens applies to all screens for setting of cylinder service parameters:

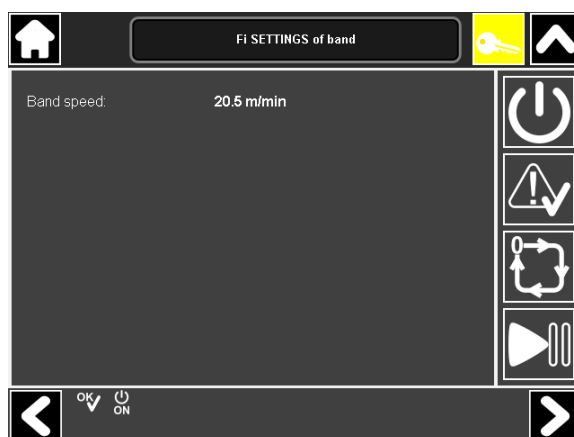
Pozice	Function
Bounce time	Vice bounce-off time
Time of SP filter	Switching filter time, filter for attenuation of overswings at the limit switch, during movement toward the limit switch

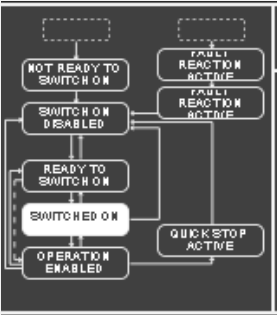
Pozice	Function
Opening time	Time limit for the vice opening
Timeout	Time limit for the vice opening and closing
Switch off SP filter	Switching filter time, filter for attenuation of overswings at the limit switch, during leaving position
	Current state display  - is opening  - vice is closing  - unknown state
	Error message. If no error occurs, the error message box is empty.
	Error confirmation
	Restart, value settings remain.
	Interruption and restarting the unit
	Stop
	Bounce-off
	Release
	Clamp

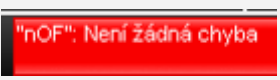
3.10.3.2. Diagnostics of the saw frequency converters (hierarchical level 2)



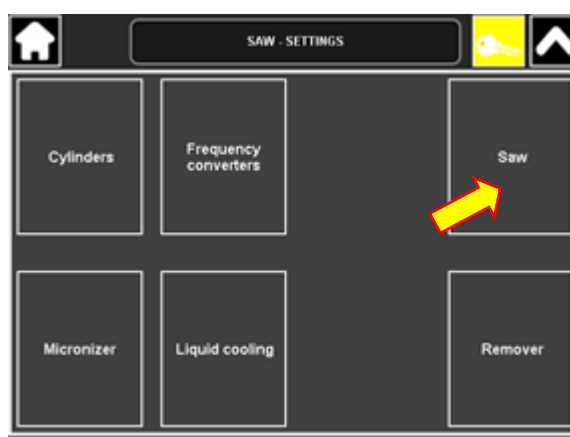
The "Frequency converters" service menu under the saw settings enables display of the individual service parameters of the frequency converters for setting the band speed and arm rotation speed.



Pos.	Function
	State diagram of the current frequency converter.
	Converter state: ON / OFF OK – frequency converter start-up state Error message at the given frequency converter
	Entered and real speed of the frequency converter 0.1 Hz or in rpm

Pos.	Function
	Current value of the current flowing to the motor
	Current value of the motor torque, 0 to 100 %
	Error message. If no error occurs, the error message box is empty.
	Switch on / off the converter
	Error confirmation
	Restart, value settings remain.
	Converter stop and restart

3.10.3.3. Saw settings



- Screen No.1



Pos.	Funkce
Transmission (hierarchical level 3)	Value for conversion of the detected motor frequency to speed in m/min
Min.v: (hierarchical level 2)	Minimum band speed Minimum recommended value Min v = 20; at a lower speed, there is a risk of the band stopping in the material.
Max.v: (hierarchical level 2)	Maximum band speed Maximum recommended value Max v = 120
Speed (hierarchical level 2)	Current band speed

- Screen no.2



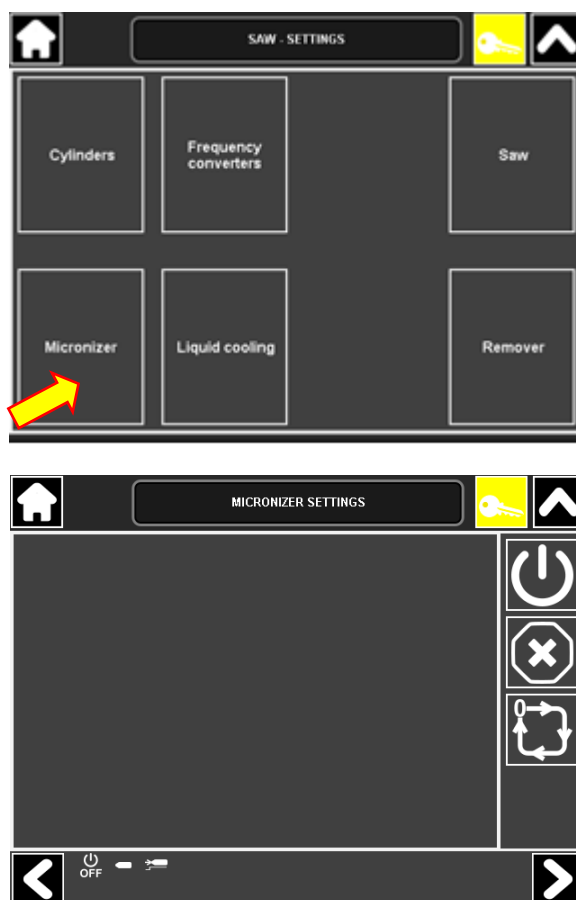
Pos.	Funkce
Min. (hierarchical level 3)	Minimum band speed Minimum recommended value Min v = 20; at a lower speed, there is a risk of the band stopping in the material.

Pos.	Funkce
Max. (hierarchical level 3)	Maximum band speed Maximum recommended value Max v = 120
Max. AI hierarchical level 2)	Maximum range of the potentiometer for the band speed. Set by the manufacturer Change the given setting in consultation with the manufacturer only.
Speed	Current band speed

Meaning of other symbols in the screens for saw band settings:

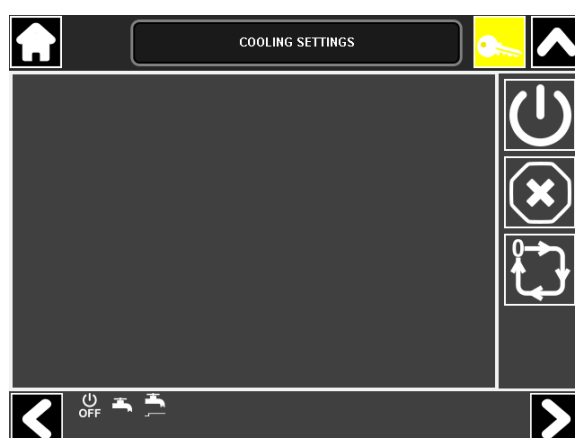
Pos.	Function
	The saw band is / is not rotating
	The unit is / is not in position
	Start the saw band
	Stop the band
	Error confirmation
	Restart, value settings remain
	Arm upward movement. The button must be pushed continually during movement. If you release the button, the movement stops..
	Arm downward movement The button must be pushed continually during movement. If you release the button, the movement stops.
	Arm downward movement with fast feed The button must be pushed continually during movement. If you release the button, the movement stops.

3.10.3.4. Setting of Micronizer (hierarchical level 2)



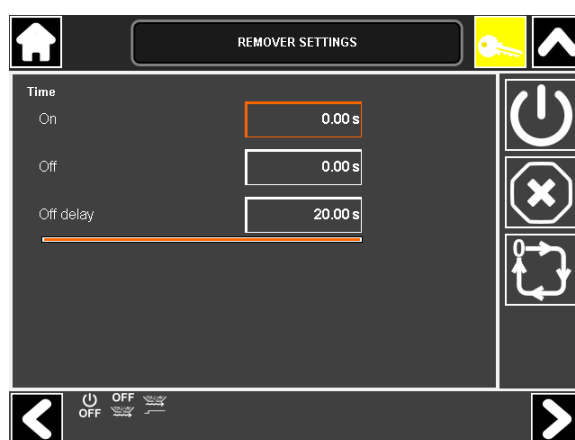
Pos.	Funkce
	Micronizer state: ON or OFF
	Micronizer is set without timing, continues to run.
	Switch on/off the Mikronizer
	Stop
	Restart, value settings remain.

3.10.3.5. Setting of the cooling (hierarchical level 2)



Pos.	Function
On	Cooling on + set timing
Off	Cooling off + set timing
	Cooling state: ON or OFF
	Cooling pump on state
	Cooling setting indication
	Switch on/off the cooling
	Stop
	Restart, value settings remain.

3.10.3.6. Chip remover settings - optional accessory (hierarchical level 2)

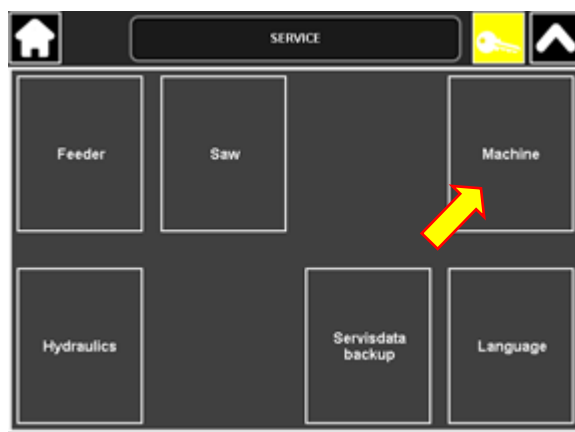


Pos.	Function
Pulse length	Time, for which the remover motor is on
Perioda	Time duration of the interrupted cycle of chip removal
Off delay	Time in which the chip removing process is finished after the last cut is completed
	Remover state: ON or OFF
	Remover on state
	Remover setting indication
	Switch on/off the cooling
	Stop

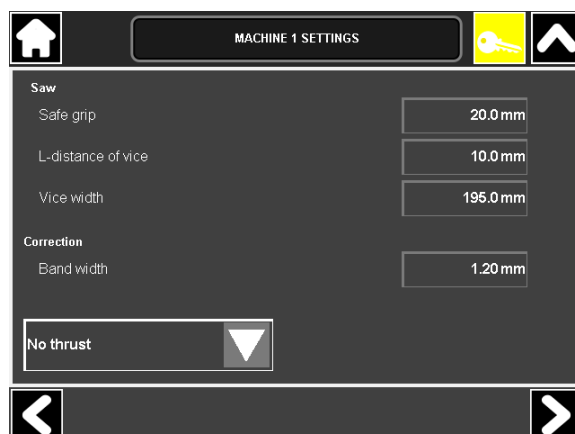
Pos.	Function
	Restart, value settings remain.

3.10.4. Setting of the machine service parameters

On the screen for selection of setting units, choose the "Machine" option"



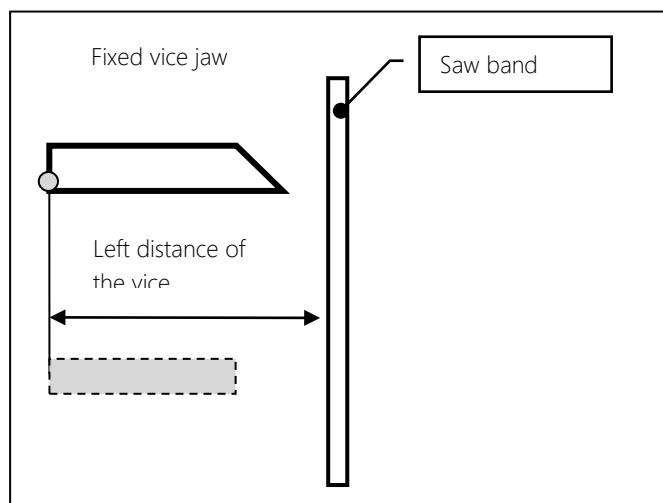
- Screen no.1



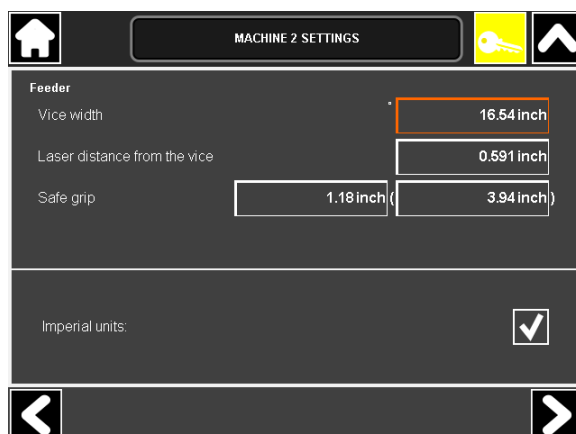
Pos.	Funkce
Saw	
Safe grip (hierarchical level 2)	Minimum length beyond which the main vice can clamp the material safely.. If the resultant clamping length of the cut piece is shorter, the piece is evaluated as residual.
L-distanceof vice (hierarchical level 2)	Left distance of the vice See Picture 1

Pos.	Funkce
Vice width (hierarchical level 2)	Vice width = width of the moving jaw of the vice
Correction	
Band width	Band width correction (cut-through correction) The parameter has an effect on the cut length precision! Enter the real cut-through width.
Pull-down menu (hierarch. level 1)	
No thrust	Upper thrust disabling
1.Vice 2. Thrust	First the main vice is clamped, then the thrust.
1. Thrust 2. Vice	First the upper thrust is clamped, then the main vice.
If the upper thrust is installed on both the feeder and the main vice, the option applies to both of the thrusts simultaneously.	

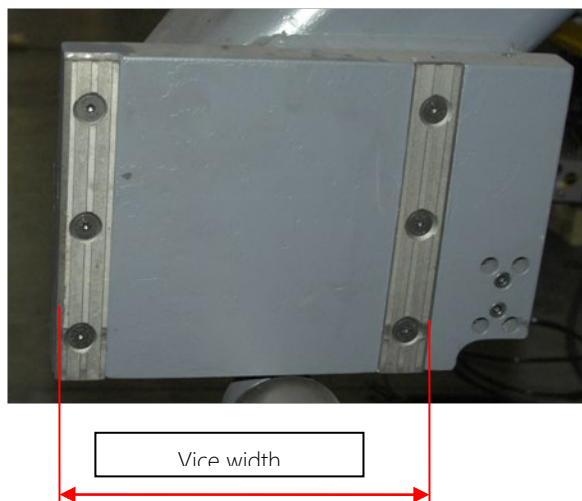
Picture 1 Left distance of the vice



- Screen no.2



Pos.	Funkce				
Feeder					
Vice width (hierarchical level 2)	Feeder vice jaw width See Pict. 1				
Laser distance from the vice (hierarchical level 2)	Distance of the laser beam from the nearest edge of the feeder jaw See Pict. 2				
Safe grip	Minimum length beyond which the feeder vice can clamp the material safely.. <table> <tr> <td>30.0 mm (</td><td>• without upper clamping</td></tr> <tr> <td>(100.0 mm)</td><td>• using upper clamping</td></tr> </table>	30.0 mm (	• without upper clamping	(100.0 mm)	• using upper clamping
30.0 mm (	• without upper clamping				
(100.0 mm)	• using upper clamping				
Imperial units	Units selection • the selection is checked – Inches • the selection isn't checked - mm				



Picture 1

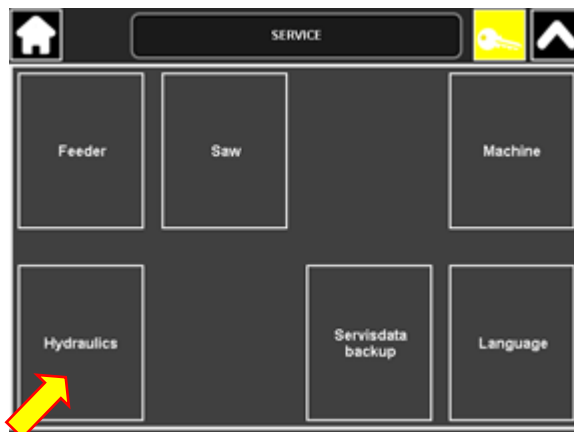


Laser distance from
the vice

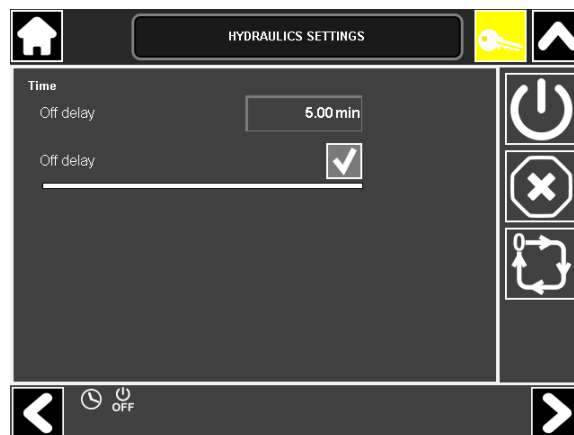
Picture 2

3.10.5. Setting the hydraulic service parameters

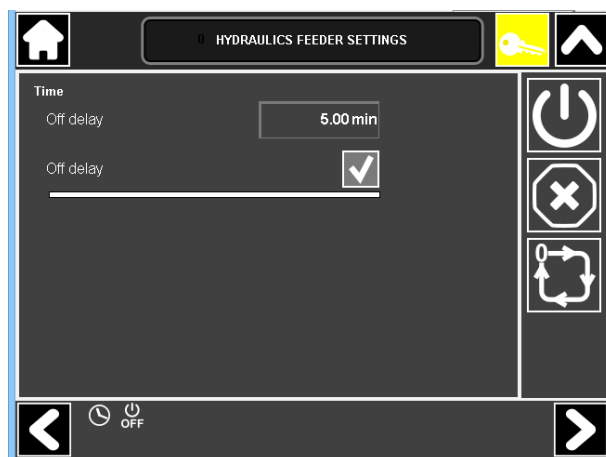
- In the screen for setting units selection, choose the "Hydraulics" option "



- The screen appears for setting of hydraulic parameters. (hierarchical level 2)
- Screen No. 1

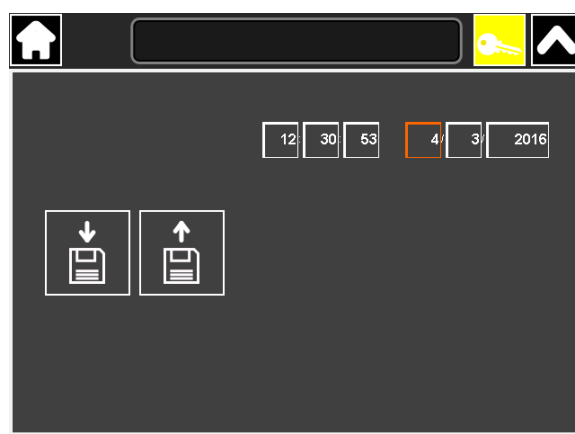
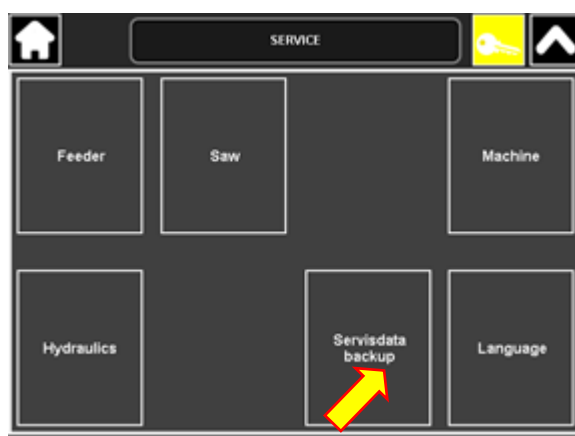


- Screen No. 2



Pos.	Function
Off delay	Switch-off time of the hydraulic unit. If none of the following operations is executed for the preset time: - hydraulic cylinder movement - cut - positioning The hydraulic unit is witched off automatically in any of the working modes (manual, semiautomatic, automatic). After the hydraulic unit is switched off, the vice jaws may be released – the saw evaluates the release of the jaws as an error. If the hydraulic unit is switched off during the automatic mode, the automatic cycle must be resumed after the error message. In as much as the machine still remembers the material position even after spontaneous release of the vices (the operator must not release the vices!), the automatic cycle can be resumed by starting of the automatic with manual loading without cut-in.

3.10.6. Saving of service settings

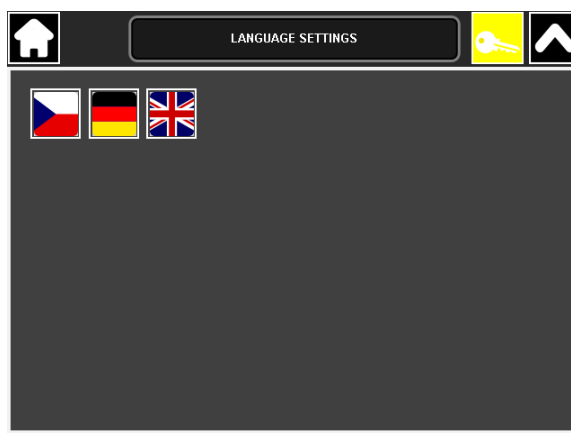


Pos.	Funkce
12 30 53 4 3 2016	Date and time
	Save service parameters (hierarchical level 2)
	Load service parameters (hierarchical level 2)

3.10.7. Language selection



In the "Language" service parameter, it is possible to set language mutations for the device control.



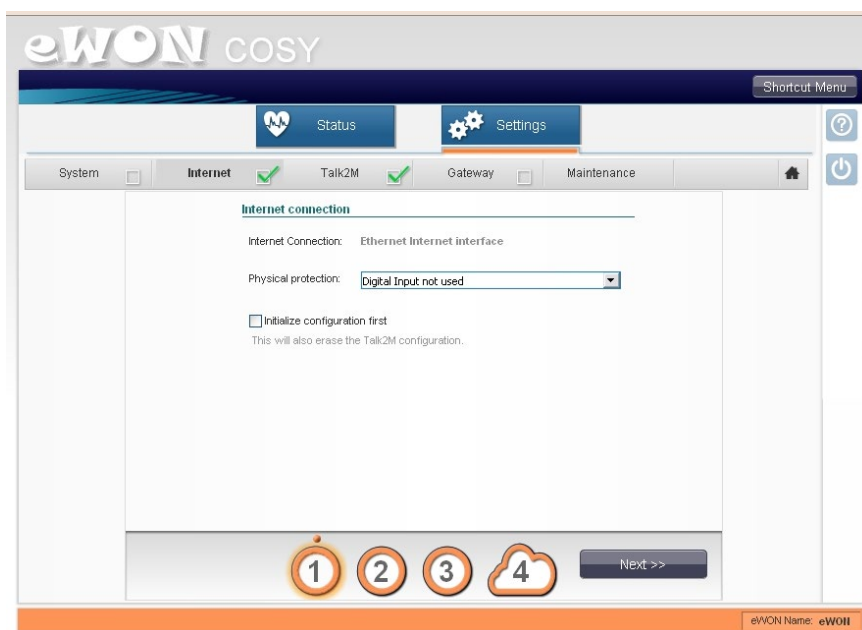
3.11. Remote control

3.11.1. Connection for remote control - requests:

The speed of internet connection has to be at least 2 MB/s.

3.11.2. Setting of Ewon Router COSY

1. Connect private Laptop to one of the LAN port of our EWON router.
2. Set the IP address of laptop's network card to 192.168.77.100 (forbidden to use addresses 192.168.77.1– 99)
3. Open internet browser and write address 192.168.77.10 to address line.
4. Main screen appears -> Click on Settings and set user: adm and password: adm.
5. Click on folder Internet. Physical protection has to be set to **Digital Input not used**.



6. Click Next button and configure your WAN IP address according your internet provider.

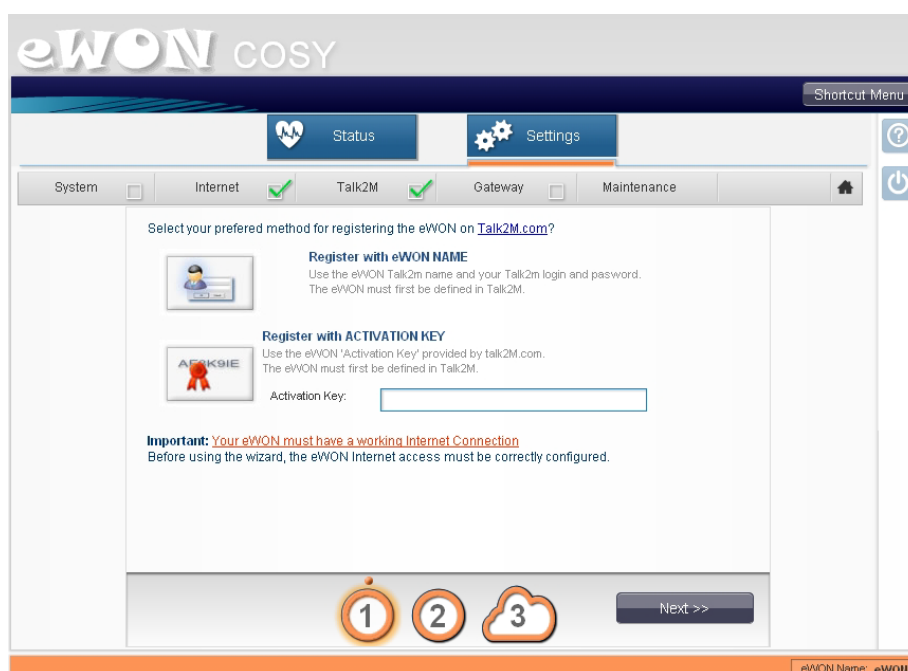


The screenshot shows the 'eWON COSY' web interface. The 'Settings' tab is active, and the 'Internet' status is checked. The 'Ethernet WAN connection' section is expanded, showing 'Address Setup' set to 'DHCP'. The IP Address is 192.168.1.100, Subnet Mask is 255.255.255.0, and Default Gateway is 192.168.1.254. The 'DNS' section is checked 'Via DHCP', with Primary DNS at 192.168.1.254 and Secondary DNS at 0.0.0.0. The 'HTTP Proxy' section is unchecked. At the bottom, there are navigation buttons: '<< Prev', a sequence of four numbered circles (1, 2, 3, 4) where circle 4 is highlighted, and 'Next >>'. The status bar at the bottom right shows 'eWON Name: eWON1'.

7. Click Next and execute Test of internet connection. If test passed internet connection should be set properly.

Note: You can test it by connecting the ethernet cable to your laptop with same setting of network card like eWON has and you suppose to be able browse on internet.

8. After that click on Talk2M folder and choose Register with ACTIVATION KEY .



The screenshot shows the 'eWON COSY' web interface. The 'Talk2M' status is checked. The 'Register with ACTIVATION KEY' section is selected. It prompts the user to 'Select your preferred method for registering the eWON on Talk2M.com?'. Two options are shown: 'Register with eWON NAME' and 'Register with ACTIVATION KEY'. The 'Register with ACTIVATION KEY' option is selected, and an 'Activation Key' input field is visible. Below the input field, there is an 'Important' note: 'Your eWON must have a working Internet Connection. Before using the wizard, the eWON Internet access must be correctly configured.' At the bottom, there are navigation buttons: '1', '2', '3' (highlighted), and 'Next >>'. The status bar at the bottom right shows 'eWON Name: eWON1'.

9. To column write the activation key from e-mail and click Next.
10. Execute Test. If test passed the setting is completed and we can test it from our site

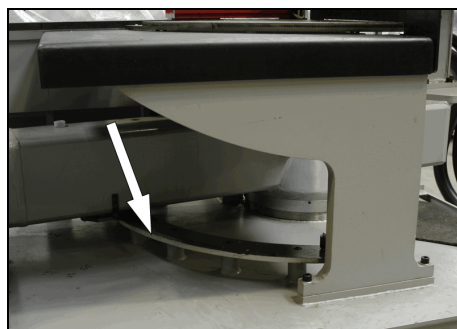
3.12. Band saw adjusting

3.12.1. Cutting angle setting

Band saw **Individual 520.360 GANC** allows to make cuts in angles between 0° to 60° . For easy setting of the positions $0^\circ - 60^\circ$ the machine is equipped with stops.



1. Release the fastening lever.
2. Swivel the frame to the desired angle by pulling the saw arm. Angle is shown:
 - a) on scale (standard (standard design



- b) At the display of the device for electrical measurement (optional accessory)



3. After cutting angle setup tighten securing lever.

Attention!

During automatic loading - if the saw arm is turned so that it intervenes to the path of the feeder, the feeder automatically stops before collision. In this case the shortest length of the material loaded is longer than the length of the material loaded if the arm is turned so that there is not collision.

During manual loading - be careful when the feeder goes to the arm! If the saw arm is rotated to a greater angle than 0°, there is a risk of collision between the arm and the feeder.

3.12.2. Electronic angular cut setting – optional accessory

Desired cutting angle is shown on LCD. How to use electronic measurement is described in special instruction manual.

Intended for applications with frequent mitre cuts

The digital indicator of the arm turning angle prevents possible mistakes caused by inaccurate reading of an angle on the scale, and increases the speed of preparation for cutting. In connection with LaserLine, the digital indicator will make every band saw the most effective tool for mitre cuts.

A large, easy to read display and accurate measuring of the arm position with a magnetic tape allow the angle to be set with the maximum accuracy.

The measuring unit is set by the manufacturer. However, its further functions may be easily controlled with four keys.

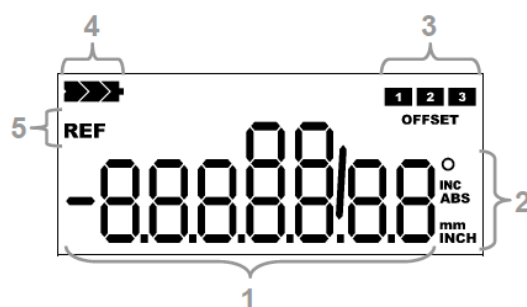


Zero position setting

1. Turn the saw arm to a zero angle position.



2. Push the Incr/Abs key (even several times) until "0" is shown on the display.



Digital measuring adjustment

Position	Description
1	Current position
2	Unit, measuring mode
3	Active additional constant (* key)
4	Battery status
5	Reference record shall be made – after the apparatus is switched on.

Description of key functions:

Key	Stop mode	Setting mode
	Basic key	Entering parameters (3 sec) Saving parameters and returning (3 sec)
	Reference recording (P09 value)	-
	Change of displaying in inches	Selection of following decade
	Absolute and incremental measuring	Change of active decade o +1
	Selection of additional constant	Change of sign □

Description of key functions at measuring initialisation:

Key	Description
	Induces calibration of the apparatus when it is switched on (battery inserted).
	Induces calibration of the apparatus and sets default values when the apparatus is switched on.

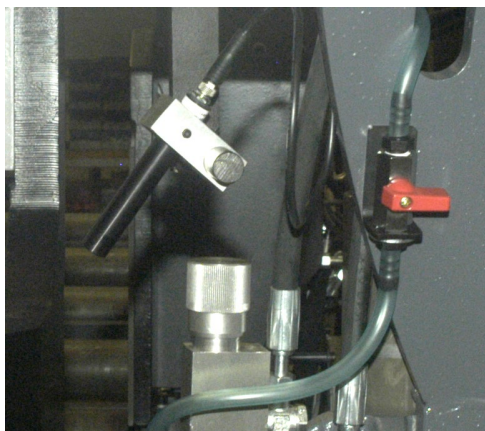
Description of digital measuring parameters:

Parameter	Description	Default value
P01 A	Measuring configuration: A = 0: positive direction of measuring A = 1: negative direction of measuring	0
P02 A	Measuring unit: A = 0: mm / symbol "mm" A = 1: inch / symbol "Inch" A = 2: mm / symbol "m" A = 3: mm / symbol "o" A = 4: mm / no symbol	0
P03 A	Decimal point (0...4) > only for mm	2
P05 ABC	Key blocking: A: "Set" key (0 = active / 1 = inactive) B: "Incr/Abs" key (0 = active / 1 = inactive) C: "*" key (0 = active / 1 = inactive)	000
P08	Correction factor (0.0001...9.9999)	1.0000
P09	Reference (-9999999 ... +9999999)	0
P10	Additional constant 1 (-9999999 ... +9999999)	0
P11	Additional constant 2 (-9999999 ... +9999999)	0
P12	Additional constant 3 (-9999999 ... +9999999)	0
P13 A	Configuration of additional constants (0...3) A = 0: inactive (cannot be selected) A = 1: Additional constant 1 active A = 2: Additional constants 1 & 2 active A = 3: Additional constants 1 & 2 & 3 active	3
P90	No function	0
P99	Displaying firmware version	x.xx

3.12.3. Laserliner – optional accessory

The device is used to ascertain exact position of the material cut before cutting.

The cut is indicated by the laser beam projected on the surface of the prepared material.



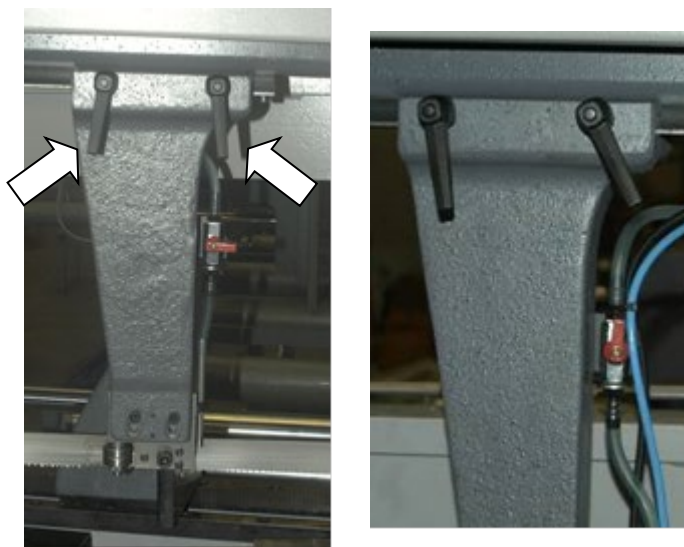
The switch for Laserliner is located on the side of the control panel, next to the main switch.



3.12.4. Adjusting band guides

If you want to achieve a smooth and precise cut, it is helpful to position the guide cube as close as possible to the material.

1. Press button **STOP** on control panel (position **8**) to switch off the hydraulics and stop on 2 second.
2. Release the stopping lever of the listel (see picture).



3. Move the left part of the guide apparatus so that the left guide cube edge is as close to the cut material as possible.
4. Tighten the lever of the gib and check the guide cube setting for possible collision with binding table or vice jaw.

3.12.5. Setting of the cutting speed

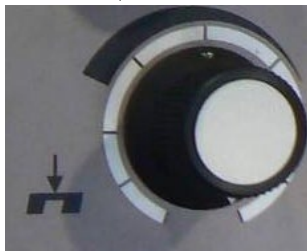
The speed of the saw band can be gradually adjusted from 20 to 120 m.min⁻¹. Set the speed as follows:



- Set the switch of the frequency changer on the control panel (position **6**) to required speed. The band speed is displayed during *semiautomatic cycle*.

3.12.6. Speed adjustment of the arm lowering

Set the speed of the arm lowering to the cut by control valve for Cutting pressure regulation (position **10**) on control panel.



- Set the **lower** speed of the arm lowering to the cut by turning the switch **clockwise**.
- Set the **higher** speed of the arm lowering to the cut by turning the switch **anti-clockwise**.

Notice:

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.

3.12.7. Digital display of speed of the saw arm lowering to cut (optional accessory)

An actual value of the speed of the saw arm lowering to a cut is shown at the display.



The display is located at the top of the saw arm.

3.12.8. Saw frame lift stop setting

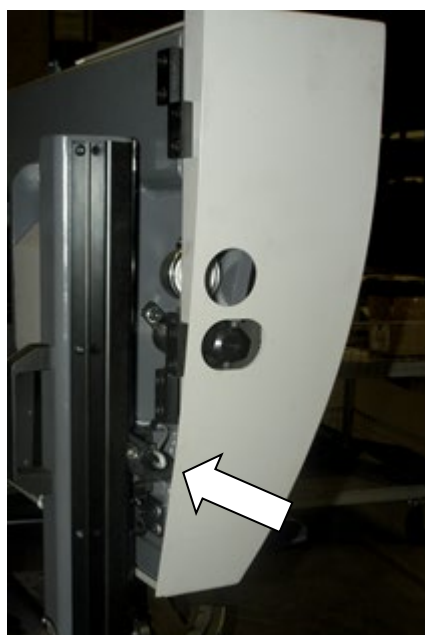
Stop position the upper arm position is monitored by readers and terminals, which are located in the back of the arm.

If you want to shorten the time of operations in automatic cycle, you have to adjust the height of the saw arm according to the height of the cutting material.



1. Lift the saw arm to the upper position.
2. Take the arm using the button **Arm up** (position **4**) to the highest position.
3. Insert a material into the vice and carefully lower the saw arm to the material using the button **Arm down** (position **4**) or with **rapid**.
4. Stop the saw arm **5 -10mm** above the material.
5. Lift height adjust arm (by turning the locking knob) according to the height of material so that the upper part of the adjustable eccentric with a scale showing the desired value (the value of the scale height of the eccentric Responsible worth of material)
6. Press the **START** button (position **8**) to the beginning of the cutting cycle.

Set arm lowering using incremental encoder position into the upper arm (optional accessories):





1. Lift the saw arm to the upper position.
2. Take the arm using the button **Arm up** (position **4**) to the highest position.
3. Insert a material into the vice and carefully lower the saw arm to the material using the button **Arm down** (position **4**) or with **rapid**.
4. Stop the saw arm **5 -10mm** above the material.
5. Press the **START** button (position **8**) to the beginning of the cutting cycle.
6. After sawing material to the bottom position of the arms incremental encoder returns to the upper position of the arm, ie. to the position it was in before being put into action by pressing the **START** button (remember you saw this position – frame lift stop)

3.12.9. Frame bottom stop position setting

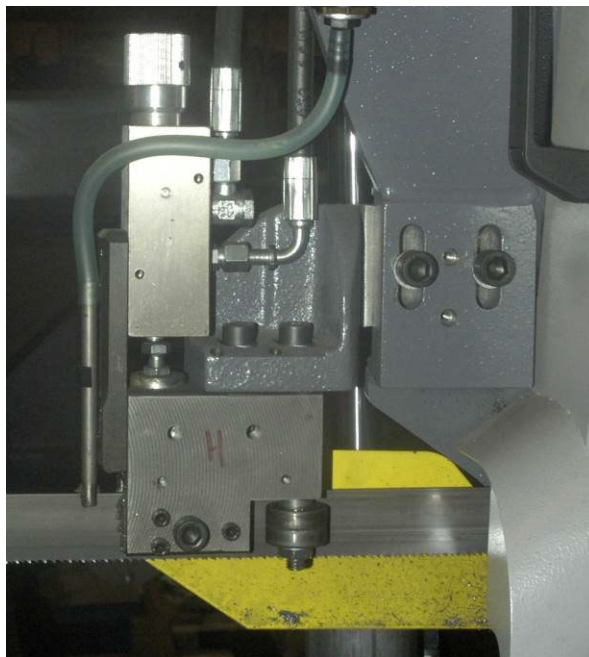
The bottom stop position of the frame limits the lowest position of the frame. This position must be checked once per month. In case of wrong setting the vice may be cut or the material is not cut completely.



Setting of frame bottom stop position is made by adjustable excenter on the frame beam.

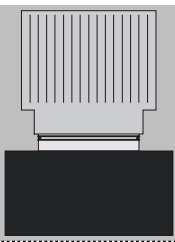
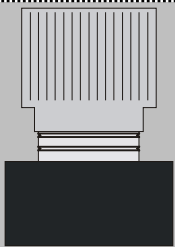
3.12.10. Einstellen der Schnittdruckregulierung

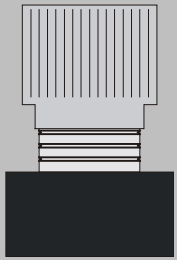
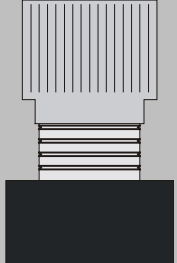
Die Bandsäge wird mit der Schnittdruckregulierung an dem rechten Bandführungsklotz ausgerüstet.



Die Schnittdruckregulierung stellen Sie mit dem Regelventil ein. Schrauben Sie das Regelventil herunter, wird der Schnittdruck erhöht. Schrauben Sie das Regelventil hinauf, wird der Schnittdruck reduziert.

Schnittdruck	Verlauf
<i>Niedrigerer Andruck in den Schnitt</i>	wird durch Drehung gegen Uhrzeigersinn eingestellt
<i>Höherer Andruck in den Schnitt</i>	wird durch Drehung im Uhrzeigersinn eingestellt

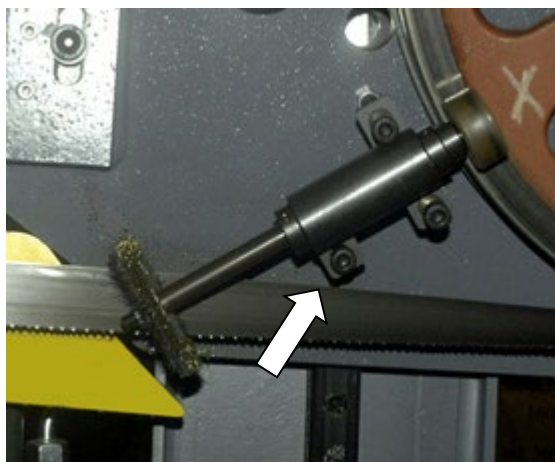
	1 sichtbarer Einstich Vollmaterial über Ø200 mm.
	2 sichtbare Einstiche Vollmaterial von Ø80 bis Ø200 mm.

	3 sichtbare Einstiche Rohre und Profile: Wandstärke von 10 bis 15 mm. I-Profil: Breite 200 - 280 mm. Vollmaterial: bis Ø80 mm.
	4 sichtbare Einstiche Rohre und Profile: Wandstärke bis 10 mm. I-Profil: Breite bis 200 mm

3.12.11. Einstellen der Spänbürste

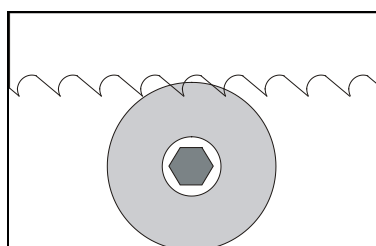
Die Spänbürste hat einen maßgeblichen Einfluss auf Schnittleistung, Lebensdauer des Sägebandes, der Laufräder und der Hartmetallführungen, und der Schnittgenauigkeit. Eine schichtweise Kontrolle ist deshalb unerlässlich. **Einstellung der Bürste muss jede Schicht kontrolliert werden.**

1. Rahmenabdeckung öffnen



2. Position der Bürste gegen das Sägeband durch Drehen der Einstellschraube einstellen)

Die Bürste muss die Sägebandzähne berühren.



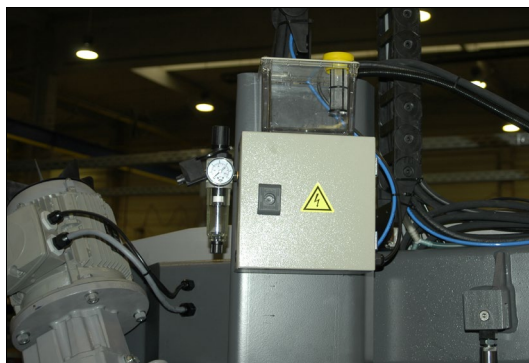
Achtung!

**Die Bürste darf nicht Ende der Sägebandzähne
erreichen!**

Ovládání stroje
Bedienung der Maschine
Machine control

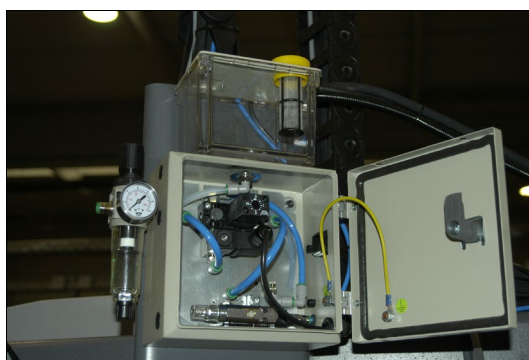
3.12.12. Micronizer(box) – mist lubrication 24V (optional accessories)

The placement of a Micronizer at the machine is pursuant to this photo



Next photos, which are inserted to next text, are determined for illustrations only.

Miconizer is a device used to create a lubricating oil mist in precise dose mixture of oil and air, which is then applied directly to the blade.



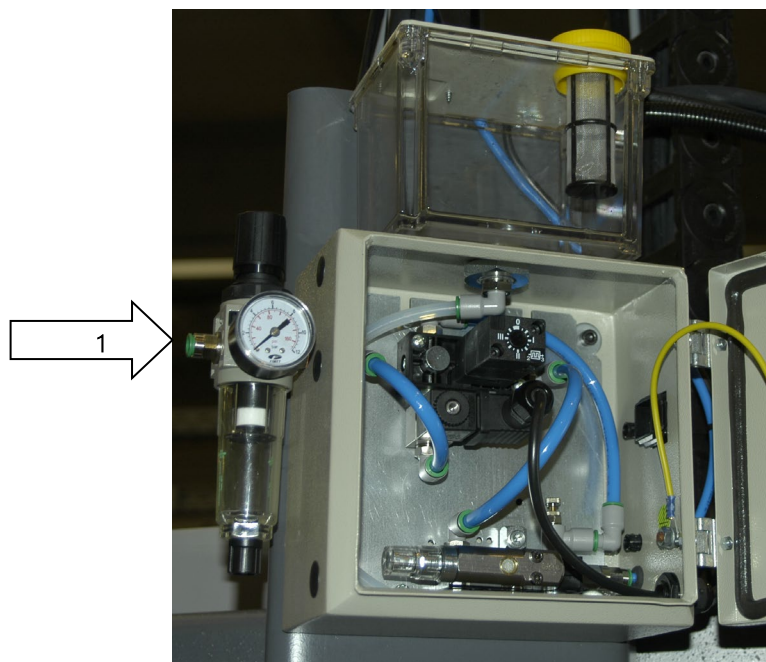
Microniser is the ideal device for cooling and lubrication of the cutting blade closed profiles, which helps to maximize ease of cut.



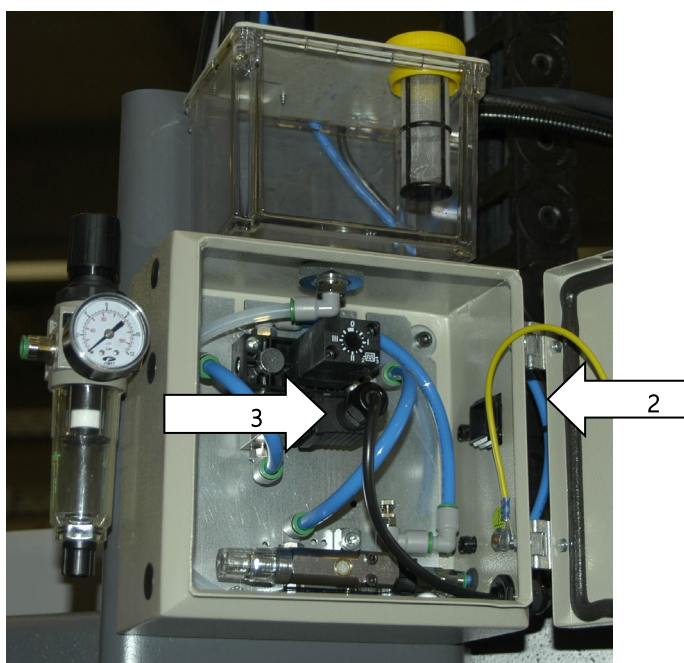
Does not leak coolant when cutting profile material outside the working area sawmills.

Equipment adapted for all brand Bomar band saws. *Microniser setting is as follows:*

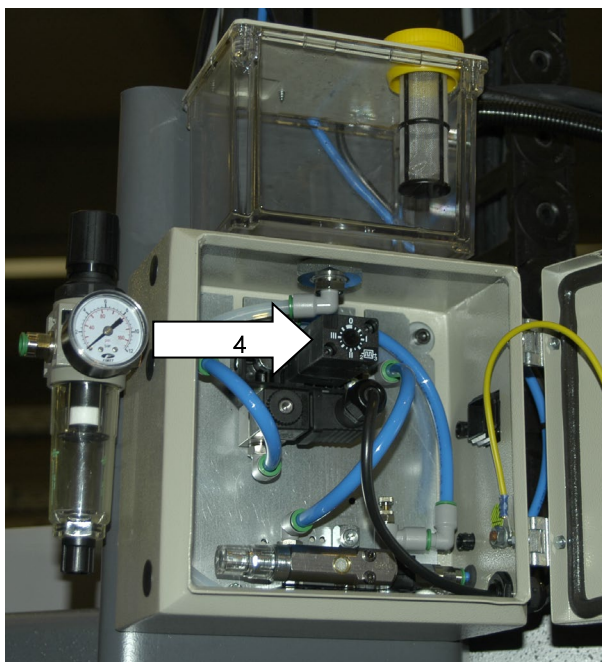
1. For proper operation microniser pressure must be applied (dry, clean air free of particles) tires in the range of 0.5 to 0.5 MPa (5-6 bar) - arrow 1



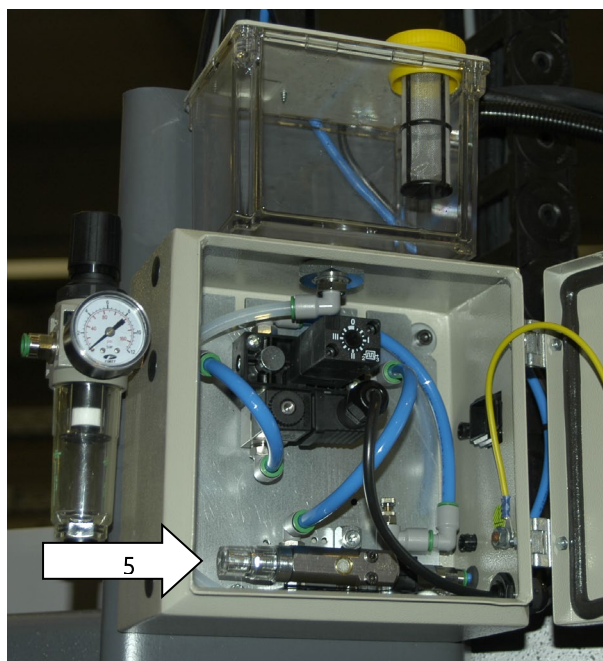
2. Arrow 2 - shows the output of the cooling medium (air + oil).
- Arrow 3 - shows the input for the power supply cable.



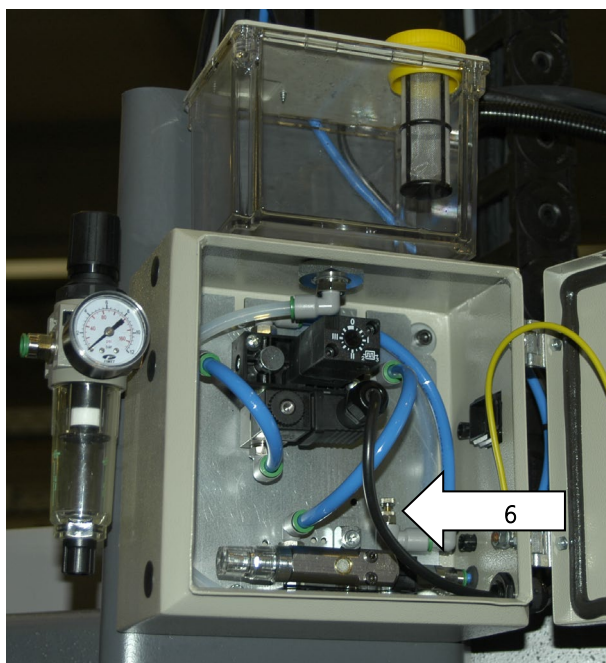
3. Set the microniser - arrow **4** the interval of cutting oil dispersion (3-20 pulses / min.). This interval adjust the parameters of the cutting strip and cut material



4. Adjust the amount of oil the regulator - arrow **5**



5. Setting the air quantity regulator make - arrow 6



6. Microniser switch on/off is controlled in dependence of control system of individual machines – see chapter "Machine control".

Recommended cutting oils for micronization:

Manufacturer	Cutting oil
Biona	Biocut
Paramo	Paramo cut 22

Featured are cutting oil with a viscosity 22.I

Add cleaning is possible after removing the filler cap. After completing a cap must be screwed again.

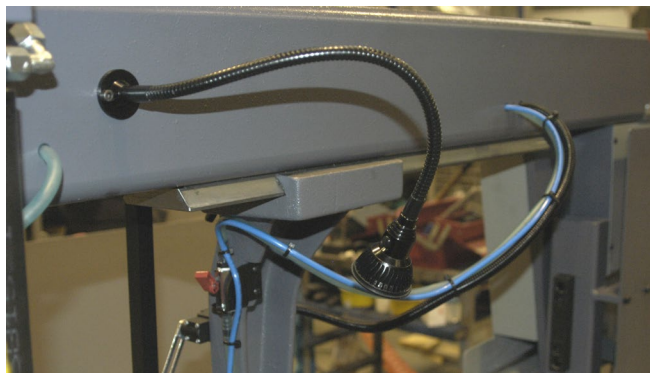
Package Includes: tank with regulators, connecting hose 6m, diffuser.

3.12.13. Halogen lighting of working area (optional accessory)

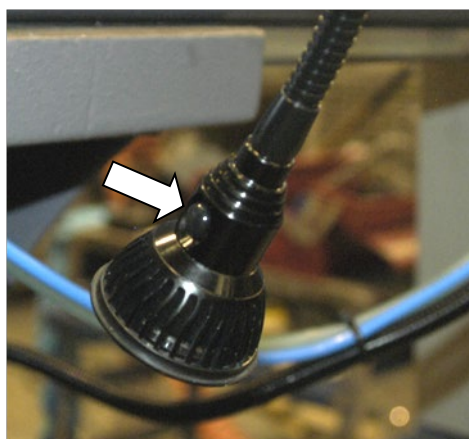
Light the working area of the machine with natural light and helps to facilitate cutting with a band saw.

Proper lighting in your work area greatly enhances ergonomics machines

Thanks flexible arm halogen light can accurately adjust to the desired location.



Turn on and off light switch is made directly to the halogen light.



Design lighting unit meets IP54 - Protection against water jets.

Technical data halogen light :

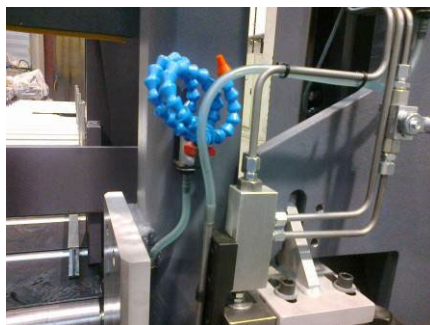
Supply voltage	230 V
Lenght flexible arm	300 mm
average	Ø 5,5 mm
lenght	80 mm

Package includes: lighting unit, flexible arm, holder for attachment to the machine, transformer, wiring.

3.12.14. Third cooling inflow (optional accessory)

Flexible coolant supply allows to bring the coolant to the desired location.

Third, easily routable and adjustable coolant supply with nozzle ensures sufficient lubrication and cooling of the strip in the middle of the cut material



Particularly suitable for cutting materials with a larger average, where the opening of the guide blocks larger blade and prevents proper lubrication and cooling of the entire length of the cut

For normal cutting off the third cooling inflow may be easily disconnected by closure



When adjusting the nozzle, pay increased attention that the inlet hose does not stand in the way of the saw band.

The third coolant inflow get in the package complete package including all jumpers and hoses - just connect to existing cooling divorce

Complete package includes: flexible hose (length 600 mm), shunt valve, inlet plastic hose (depending on the type of machine - min. 1m), interconnection schedule, holderto the machine screws (2xM5), transformer and wiring.



3.13. Material insertion

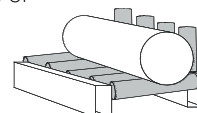
- Never walk under a suspended load!
- Never climb onto the gravity-roller conveyor!
- Do not hold the material for clamping material to the vice! The vice can cause injury!

3.13.1. Handling agent selection

- Use the strong handling agents to lift and transfer the material!
- Handle with the material only with the lift truck or use the suspension strands and the crane!
- Do not use the lift truck or crane in case that you do not have the license to handle with it!

3.13.2. Insertion

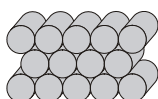
Insert material to the vice and ensure that the material cannot move in the vice or fall from the vice after the clamping. If you cut long pieces of the material (for example rod, tube), you must use the roller conveyors for material shifting to the band saw. Contact Bomar for more information about roller conveyors



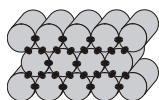
Make sure the conveyor is long enough and the material cannot tip off the conveyor.

Be especially careful with round materials that it always stays on two vertical rollers and that it cannot fall off the conveyor!

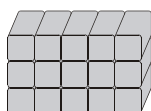
3.13.3. Bundle material cutting



Pokud chcete řezat materiál ve svazku, uvádíme zde If you want to cut the material in the bundle, there are suggestions for the positioning of bundles



Round material bundle: Take care especially with round material that the bars are put according to the picture. If the bars are put differently, you may have problems with movement.



Always weld the material at the rear end of the bundle to secure it from moving.

Before welding always, switch the machine off at the main switch! The magnetic fields, which often occur during welding, may damage the controls!

Attention:

Not all material shapes are suitable for bundle cuts. Keep the recommendation of your supplier of the saw bands for material insertion to the bundle.

3.13.4. Hydraulic fixture bundles (Top clamping - auxiliary vice) – optional accessory

To better maintain the workpiece in the vise recommend using **hydraulic fixture bundles** of material that is not part of the standard equipment, optional accessories only. It is suitable especially in the case of uneven cutting material.

Fixture bundles (top clamping) is situated

- At the band saw

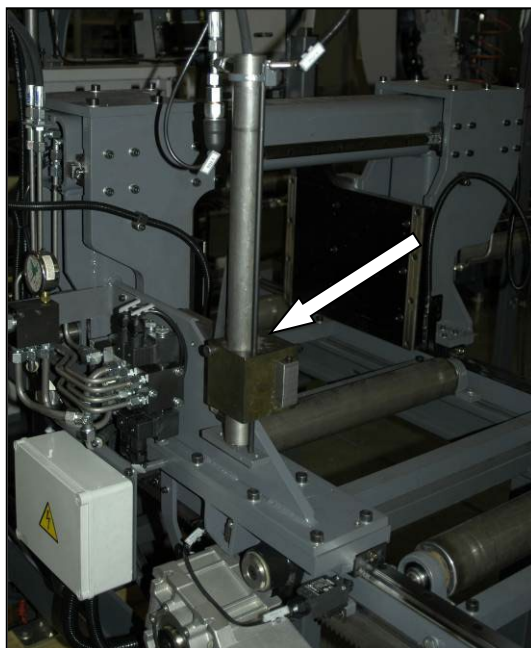


- At the feeder



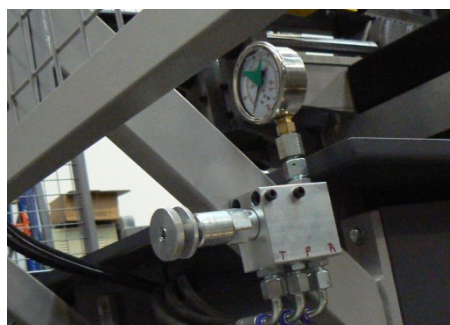
Note

If the upper thrust is not used, put it on the feeder trolley.



3.13.5. Device for regulation of clamping pressure (optional accessory)

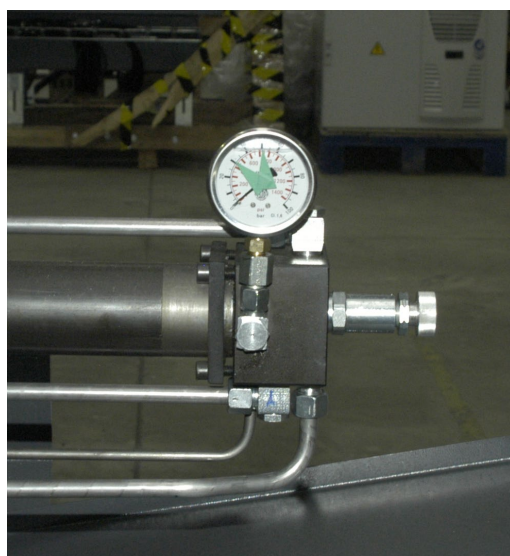
The hydraulic pressure device is determined for pressure setting on the main vice and feed vise.



SDRA



SDRA



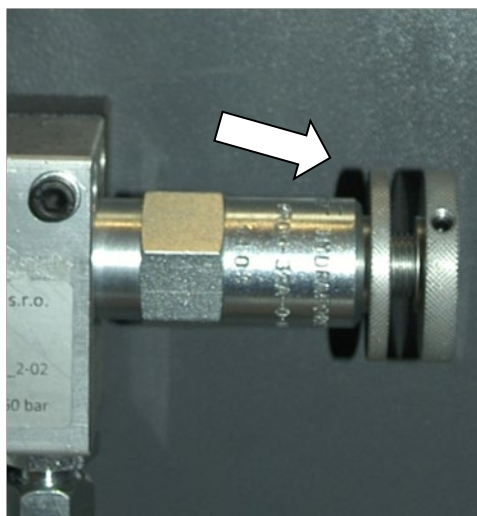
SDRS

Warning !

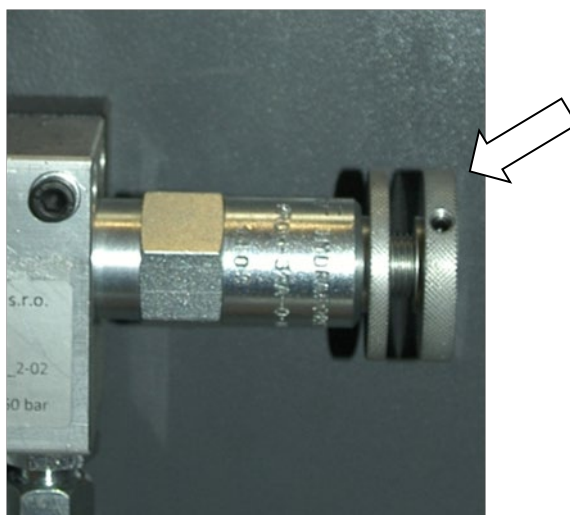
Because the hydraulic pressure equipment pressure 2,2 – 4 MPa, loosen the screws with caution!

Instruction for adjustment of clamping pressure

1. Release the locknut of the control screw at the pressure valve



2. Adjust the clamping pressure to the required value using the control screw.



- When turning the pressure valve *clockwise the pressure increases*.
- When turning the pressure valve *counterclockwise lowers the pressure*.

The indicator at the manometer at the device for clamping pressure adjustment indicates the set value.

The recommended pressure value is between the values defined through the green arrows at the manometer at the device for controlling of the clamping pressure.



3. Tighten the locknut of the control screw at the pressure valve .

Attention:

It isn't necessary to adjust the hydraulic pressure of the whole saw in order to adjust the clamping pressure

4. **Údržba stroje / Wartung / Machine service**

4.1. Saw band installation and dismantling

4.1.1. Saw band dismantling – mechanical saw band stretching

1. Lift the saw arm to maximum position.
2. Disconnect the machine from electricity, it secures, that the machine can't be switched on randomly.

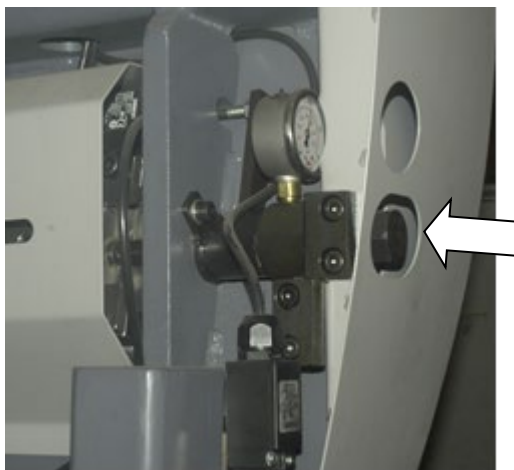


3. Open all three covers on the saw arm.





4. Dismantle left protective covers of the band. Covers are fastened by screws.
5. Release the screw holding the brush. Turn the brush to the side.



6. Turn by stretching star to the left side, release saw band stretching and pull down the saw band from the wheels.
7. Pull down the band from the wheels.
8. Pull up the saw band from the guiding cubes.

4.1.2. Saw band dismantling – hydraulic saw band stretching

1. Switch switcher DEBLOCK into position „1“ – this turns off safety circuit and the button ons for the saw band tensioning arms are active.



2. Raise the arm to the top position with a third button.



3. Open all three covers on the saw arm.





4. Dismantle left protective cover of the band. Cover is fastened by screws.
5. Release the screw holding the brush. Turn the brush to the side



6. Use the buttons on saw arm to loosen the saw belt.
7. Pull down the band from the wheels.
8. Pull up the saw band from the guiding cubes.

4.1.3. Saw band installation

1. Prior to installation, clean all track wheels, guide cubes and inner side of the arm thoroughly of all traces of chips and dirt. *Keep in mind the teeth direction when installing the saw band.*
2. Insert new saw band in the guide cubes. Make sure the saw band runs between both guide rollers and it is pushed all the way to the top.
3. Put the saw band on both guide wheels. Make sure that the saw band ridge fits tightly to the wheel rim. Then push the saw band as far back as possible.
4. Stretch the saw band by means of the screw, that the band did not falls from wheels. If the machine is equipped with a hydraulic tensioning belt, stretch belt with buttons.
5. Install yellow protective cover of the band.
6. Move the brush to the saw band. Tighten the securing screw.
7. Close the covers of both driving wheels.
8. When machine is equipped with Hydraulic belt tension Turn ON the safety circuit. Also swich DEBLOCK key into position "0".
9. Saw band installation is finished.

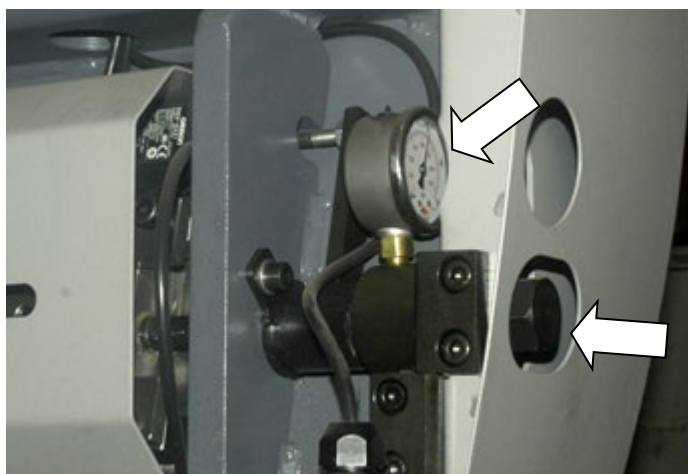
4.2. Saw band stretching and inspection

Right saw band stretching is one of the most important criteria's, which influents accuracy and saw band service life. Stretch the saw bands according to the selected saw band and the band saw. Keep the recommendation of your manufacturer.

Pilový pás Sägeband Saw band	Napětí pilového pásu Sägebandspannung Blade tension	Napětí pilového pásu PSI (pro Tenzomat) Sägebandspannung PSI (für Tenzomat) Blade tension PSI (for Tenzomat)
20 x 0,9 mm	160 N.mm ⁻²	23 500
27 x 0,9 mm	180 N.mm ⁻²	26 500
34 x 1,1 mm	210 N.mm ⁻²	30 500
41 x 1,3 mm	240 N.mm ⁻²	35 000
54 x 1,3 mm	240 N.mm ⁻²	35 000
54 x 1,6 mm	280 N.mm ⁻²	40 600
67 x 1,6 mm	290 N.mm ⁻²	42 000
80 x 1,6 mm	300 N.mm ⁻²	43 500

4.2.1. Mechanical saw band stretching

- Switch on the hydraulic aggregate after the saw band installation check the saw band stretching on the manometer .



- Use the screw to stretch the saw band until it is stretched to the recommended value.

4.2.2. Hydraulic tensioning of the saw band

If the band saw is equipped with hydraulic tightening of the saw band, the band tightening value is adjusted by the manufacturer directly.

Push the button (see arrow) until the sawband isn't stretched.



4.3. Adjusting of the saw band run

Regularly check the saw band in the guiding cubes and on the wheels. Especially when saw band was changed it is important to set the run of saw band properly..

4.3.1. Saw band inspection

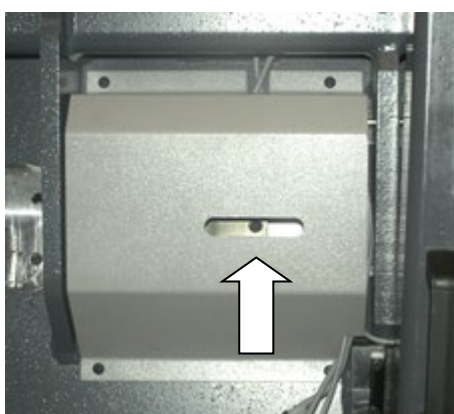
If the belt is not running properly, you may experience the following problems:

- Saw band can fall from the wheels - the belt and the belt guard can be damaged.
- Saw band is running along the shoulder of the tension wheel – it can cause damage of the belt and the shoulder of the wheel



1. Switch on the saw band for a short time and switch it off.
2. Switch off the main switch.
3. Open cover(s) of the wheels and check position of the saw band on the both wheels.
 - If the distance between backside of the saw band and the offset wheel is **1 mm**, setting is right..
 - If the distance is bigger than **1 mm**, or the saw band is on the offset of the wheel, set the saw band.
4. Close cover of the saw band.

4.3.2. Saw band run setting



Saw band run is set with screw (arrow) in the stretching cube on the saw arm. Right distance rear part of the saw band from wheel rim is **1 – 3 mm**.

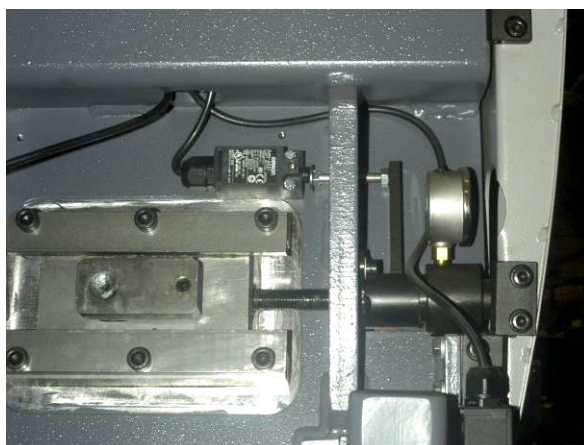
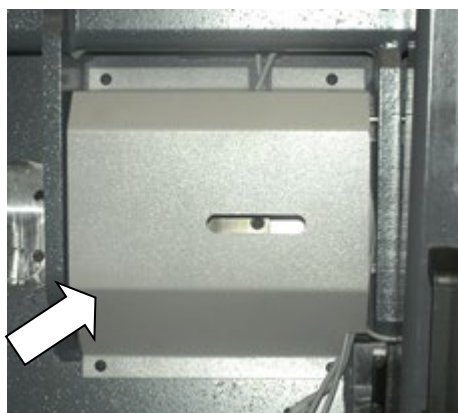
- Turn with the screw to the right, the saw band is closer to the stretching wheel rim.

- Turn with the screw to the left, the saw band is far from the stretching wheel rim

Check saw band run adjustment again.

4.4. Adjusting of the limit switch of the saw band stretching

After the saw band is replaced, the saw band stretching must be checked. If the limit switch is not adjusted correctly, the band is stretched too little or too much.



1. Dismantle the protective cover.
2. Tighten the saw band by means of the TENZOMAT on the optimal value (table is on the Tenzomat).
 - If the drive engine is switched on, but it is not running, turn with the screw clockwise, until the engine begins run..
 - If the drive engine is possible switched on, turn with the screw anticlockwise, until the engine is stopped and then turn with the screw clockwise, until the engine begins run.
3. Mount the protective cover

4.5. 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 behaviour increases • emulsions stability deteriorates • sticky residue develops

4.5.1. Coolant device inspection

The state of the cooling agent has significant influence on the cutting quality and on the operational life of the machine. Lifetime of the cooling liquid is 1 year, after this time we recommend change the cooling liquid. This time is dependent on the degree of pollution cooling liquid (especially with oils) and on the other factors.

Check level of the cooling liquid and function of the pump periodically!

Note:

If the state of the cooling liquid is not satisfactory, the cooling liquid must be changed.

Check the state of the cooling agent according to the following table:

Testing	Interval	Method	Condition	Precaution
Liquid level	daily	visually	too low	after concentration check, refill with water or emulsion
Concentration	daily	refractometer densimeter	too high too low	refill water refill base emulsion
Smell	daily	by sense of smell	unpleasant smell	good ventilation, add biocides or renew coolant
Contamination	daily	by sense of smell	visible oil leaks, sludge fungi	surface cleaning, fix leaks, add biocides or fungicides, or coolant renewal after added system cleanser*
Corrosion-protection	when necessary	visually chip test Herbert-test	insufficient corrosion protection	test stability, if necessary – increase concentration or pH value
Stability	when necessary	refractometer	oiling	add concentrate, enquiries to supplier
Foam reaction	when necessary	shaking test	too much foam, foam disperses too slowly	avoid aeration, increase water hardness, ix with defoamer

* According to manufacturers' instructions

4.5.2. 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.

4.5.3. Tool cleaning machines from chips after cutting. - optional accessory



With custom pump (min. capacity 16 l / min.) The coolant gets into the rinsing pistol with the trigger lever.

Sufficient pressure to the chips and debris were eliminated from the bearing surfaces of the base material and the saw.

Gun cleaning machine from the chip is supplied with a sufficient supply hose for easy handling (diameter of 12/8 mm).

Package includes:

1. Ergonomic handle allows easy handling of the gun during cleaning machine.



2. Brass adjustable nozzle allows for smooth width rinse stream.



3. Valve for setting maximum coolant flow



4. Also included is a convenient holder for postponement gun after use



5. Connecting part equipped with a transparent tube with a connecting part for coupling the cleaning pistol to the pump.



6. Transparent inlet hose to couple the pistol to the connecting part.



Suitable for machine brand Bomar

4.6. Hydraulic, Greases and oils

4.6.1. Gearbox oils

In gearboxes, oil is used for the whole lifetime of the gearbox. We recommend replacing of the filling oil in case of repair.

Attention:

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 must not be mixed!

Use oils with specification DIN 51517 in the gearboxes. Select the viscosity grade ISO VG according to the original oil fill.

Recommended oils and quantity according to the type of the band saw

Band saw	Gearbox oil	Capacity
Individual 520.360 GANC	Shell Tivela S 320	3,3 l
Swarf conveyor	Shell Tivela S 320	0,075 l

Comparative table of the gearbox oils

Manufacturer	Viscosity grade		
	ISO VG 100	ISO VG 220	ISO VG 320
BP	Energol GR-XP 100	Energol GR-XP 220	Energol GR-XP 320
Castrol	Alpha SP 100 Alpha MW 100	Alpha SP 220 Alpha MW 220	
Elf	Reductelf SP 100	Reductelf SP 220 Reductelf Synthese 220	Reductelf SP 320
Esso	Spartan EP 100	Spartan EP 220	Spartan EP 320
Mobil	Mobilgear 627	Mobilgear SHC 220 Mobilgear 630	Mobilgear 632
ÖMV		PG 220	
Paramo	PP 7	Paramo CLP 220	Paramo CLP 320
Shell	Shell Omala 100	Shell Omala 220 Shell Tivela S 220	Shell Omala 320 Shell Tivela S 320
Total	Carter EP 100	Carter EP 220	Carter EP 320

4.6.2. 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.

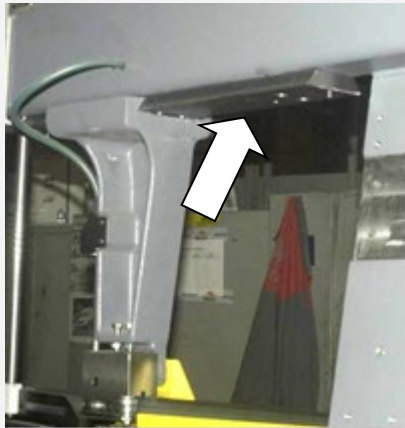
Comparative table of the lubricant greases:

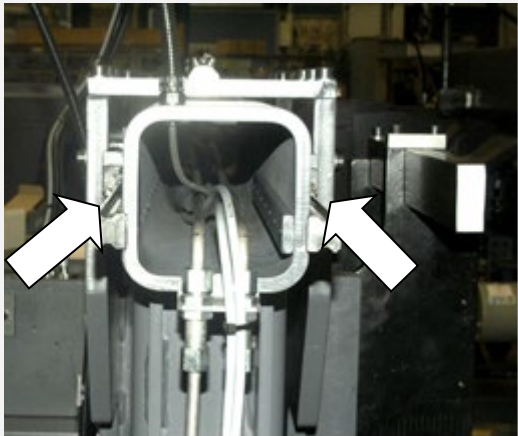
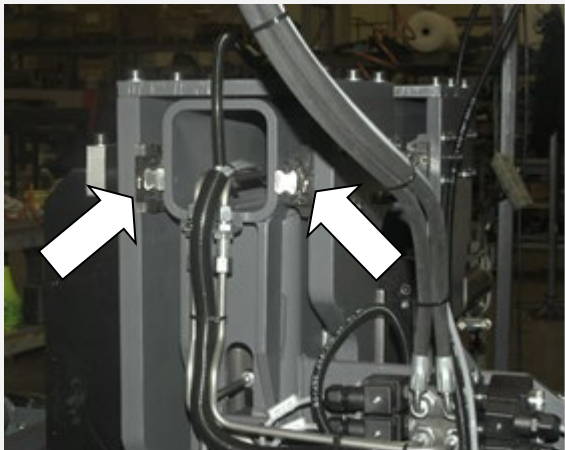
Manufacturer	Type of the lubricant grease
BP	Energ grease LS - EP
DEA	Paragon EP1
Esso	FETT EGL 3144
	Beacon EP 1

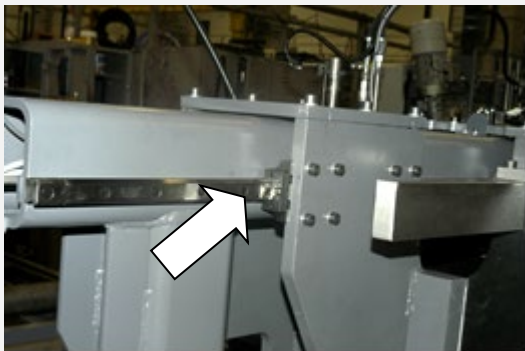
Manufacturer	Type of the lubricant grease
	Beacon EP 2
FINA	FINA LICAL M12
	Microlube GB0
Klüber	Staburags NBU8EP
	Isoflex Spezial
Optimol	Optimol Longtime PD 0, PD1, PD2
Shell Aseol AG	ASEOL Litea EP 806-077
Texaco	Multifak EP1

4.6.3. Lubrication

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

Lubrication place	Lubrication
	The guiding cubes leading Grease with oil from both sides once a week.
	The linear guiding 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.

Lubrication place	Lubrication
	The linear guiding 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
 	The linear guiding of the jaw of the feeder vice 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.

Lubrication place	Lubrication
	The linear guiding of the feeder 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 guide of the upper clamping of the feeder 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.

4.6.4. Hydraulic oils

Replace the hydraulic oil once a year, 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!

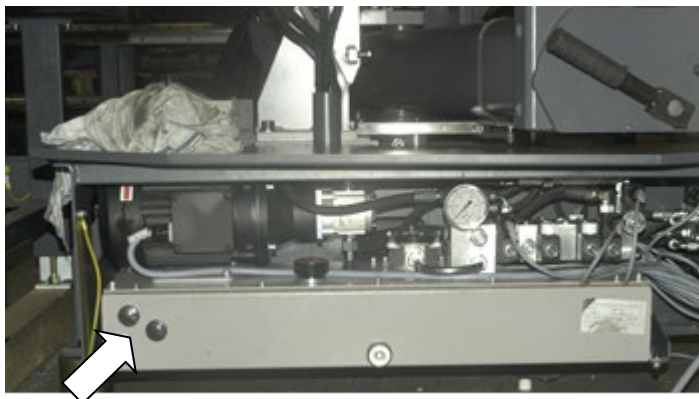
Comparative table of the hydraulic oils

Manufacturer	Type	Manufacturer	Type
Agip	Oso 32	Ina	Hidraol 32 HD
Aral	Vitam GF 32	Klüber	Lamora HLP 32

Manufacturer	Type	Manufacturer	Type
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		

4.6.5. Hydraulic oil level check

Pull up the gauge and check the state of the oil. The oil level must be situated between water-glas.



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.

4.7. Machine cleaning

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

- Clamping jaws of the vices
- Linear guides of the clamping jaws of the vices
- Loading surface of the vice
- Guiding surfaces of the feeder

4.7.1. Tool cleaning machines from chips after cutting. - optional accessory

The tool can be used for cleaning of a machine from chips which were produced during cutting proces.

As a cleaning liquid is used coolant which spouts from the nozzle of the „gun“ when its handle is pushed down.



With custom pump (min. capacity 16 l / min.) The coolant gets into the rinsing pistol with the trigger lever.

Sufficient pressure to the chips and debris were eliminated from the bearing surfaces of the base material and the saw.

Gun cleaning machine from the chip is supplied with a sufficient supply hose for easy handling (diameter of 12/8 mm).

Package includes:

7. Ergonomic handle allows easy handling of the gun during cleaning machine.



8. Brass adjustable nozzle allows for smooth width rinse stream.



9. Valve for setting maximum coolant flow



10. Also included is a convenient holder for postponement gun after use



11. Connecting part equipped with a transparent tube with a connecting part for coupling the cleaning pistol to the pump.



12. Transparent inlet hose to couple the pistol to the connecting part.

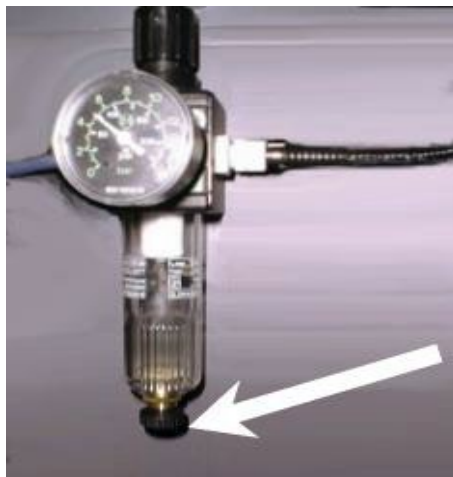


Suitable for machine brand Bomar

Závady
Störungen
Troubleshooting

4.7.2. Pressure system servicing

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



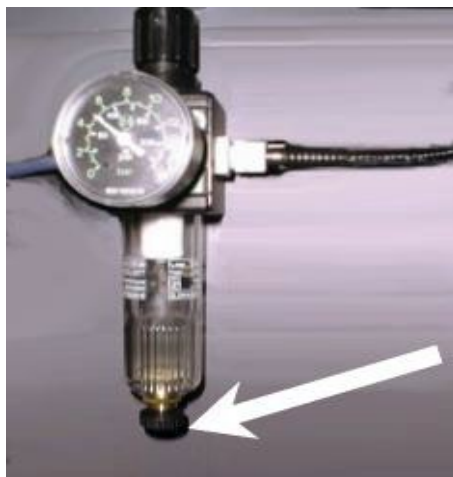
Close the pressure air supply. Screw off the screw and let to drain sediments to the reservoir. Screw on the screw again.

WARNING!

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

4.7.3. Pressure system servicing

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



Close the pressure air supply. Screw off the screw and let to drain sediments to the reservoir. Screw on the screw again.

WARNING!

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

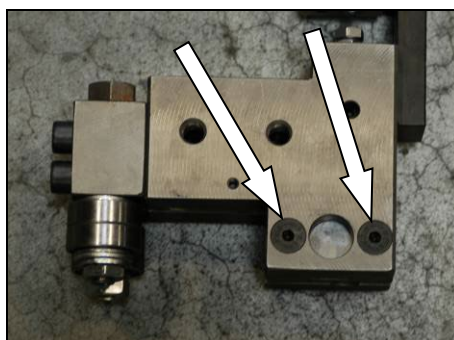
4.8. Worn pieces replacement

4.8.1. Pushing bearing replacement

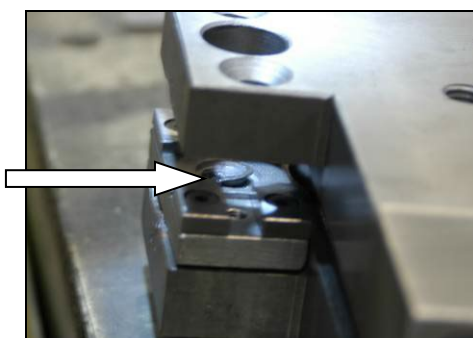
If it is impossible to adjust the bundle gripping assembly and the pushing bearing is worn, it needs to be replaced



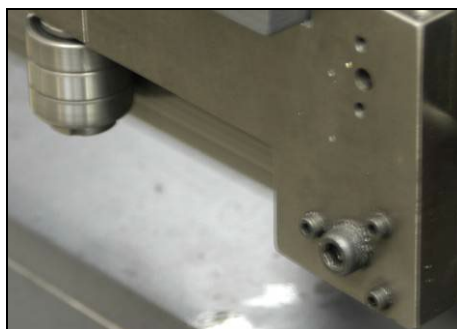
1. Dismantle the saw band.
2. Disconnect the hose from the cooling agent eventually unmount microniser.
3. Unmount guiding cube from holder on saw.



4. Loosen the 2 clamp screws solid carbide guides and remove them..
5. Remove fixed hardmetal.



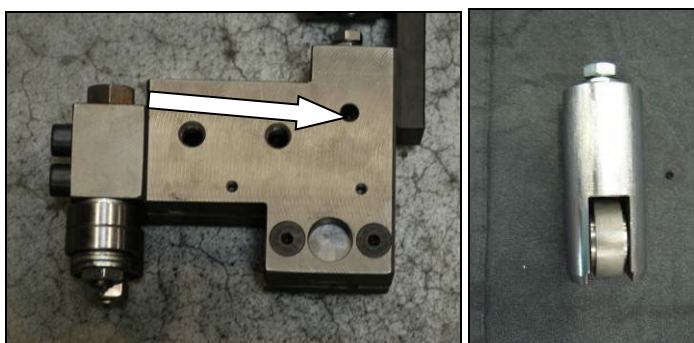
6. Remove retaining ring. Then unmount adjusting screw.



7. Remove other three screws.



8. Carefully remove the hardmetal. Remove disc springs.



9. Loosen the mounting worm (allen wrench no. 3). Remove the pivot with bearing from the guiding cube.



10. Insert the pivot to the vice.

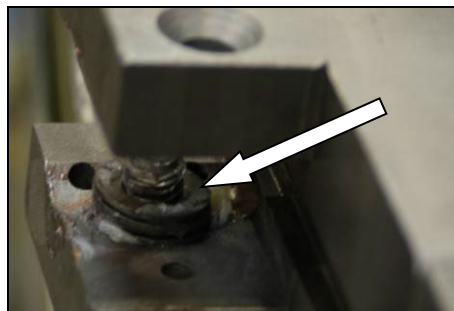
Attention:

The vice has aluminium jaws, eventually, there has to be an aluminium agent to protect the pivot from damage.

11. Remove the bearing pivot from the bearing holder by means of the swager.



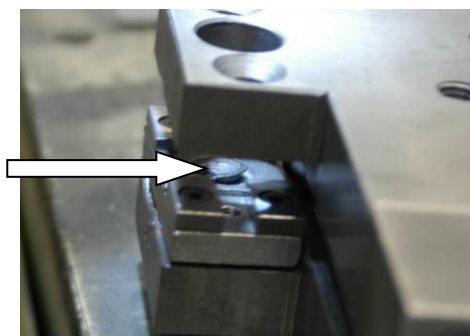
12. Remove the worn bearing and other damaged parts.
13. Fasten the holder to the vice.
14. Insert the bearing and washers and return the pivot to its original place.
15. Place the assembled piston guide cube. Piston must move freely in a guiding cube.
16. Worm screw defines the operation of the piston (piston has a slot in which is the worm). Tighten the worm, but with a minimum clearance to the piston could move.



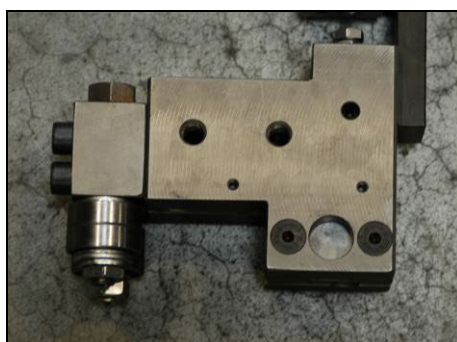
17. Insert the disc springs. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the harmetal carbide.



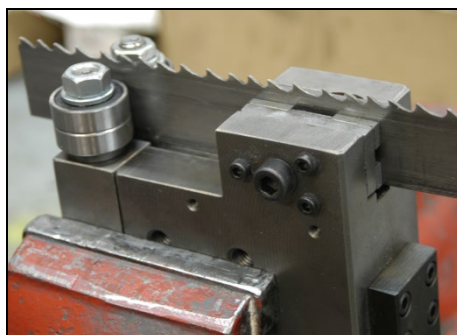
18. Insert the new hard metal guide. *Attention, Do not lose disc springs.* Ensure proper position of carbide guides – holes for 3 stop screws must be in the same position as the holes in a guiding cube.
19. Insert and tighten central screw.



20. Insert the retaining ring on central screw.
21. Insert 3 stop screw around central screw.



22. Insert fixed hardmetal guiding and mount hard metal with two screws.



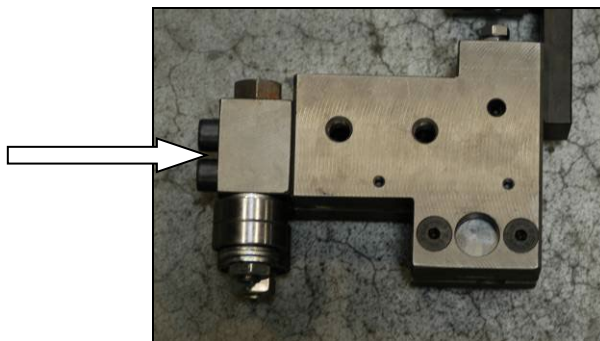
23. Using a short piece of the blade used on the machine, adjust the width of the gap between the guides. Loosen the central screw. Set the gap by central adjusting screw. Belt guides must walk freely without large and will also not scrub.

4.8.2. Saw band guiding pulleys replacement

Attention:

Guiding pulleys must be replaced together on both guiding cubes!

If the saw band is not sufficiently guided by guiding pulleys or if the pulleys are obviously worn, the pulleys should be replaced.



1. Release 2 screws. Dismantle the guiding cube of the saw band.

Attention:

Mark both eccentrics placing and components on the eccentric! Eccentrics must not be replaced with each other!



2. Tighten the guiding cube to the vice and dismantle both eccentrics with bearings following way.
3. Screw off nuts from eccentrics.
4. Remove eccentrics from bearings by means of the swager.



5. Change all bearings and other worn parts.

6. Install eccentrics to the cubes. Install components on both eccentrics in given

Attention:

Do not replace the eccentrics placing in the cube.

order. Put bearings by means of the preparation on eccentrics.



7. Screw on nuts on both eccentrics and tighten them.



8. Insert the saw band to the guiding cube (cca 15 – 20 cm). Secure the movable hard metal guide with scotch so, that the saw band is pressed with guides and it is possible to move with saw band

Optimal distance between the band and the pulley is 0,05 mm.

9. Set the eccentrics by means of the wrenches, the saw band must run in the centre. Guide pulleys must not press too much on the band, but must spin freely during the band run
10. Tighten nuts on both eccentrics.
11. Remove the testing piece of saw band from the cube lead. Install the guiding cube on the machine.

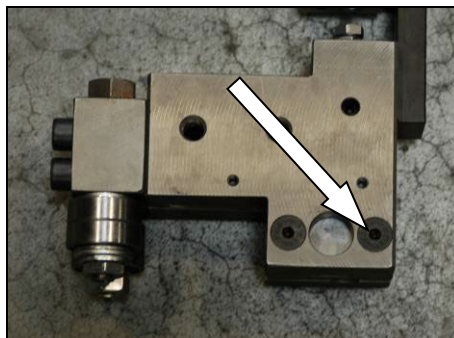
4.8.3. Hard metal guides replacement

ATTENTION!

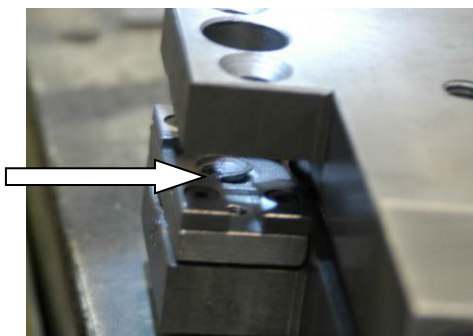
Hard metal guides must be replaced together on both guiding cubes!!

If the hard metal guides cannot be adjusted, they have to be replaced

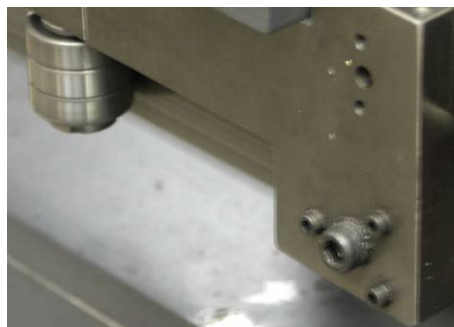
1. Dismantle the saw band.
2. Disconnect the hose from the cooling agent eventually unmount microniser.
3. Unmount guiding cube from holder on saw.



4. Loosen the 2 clamp screws solid carbide guides and remove them..
5. Remove fixed hardmetal.



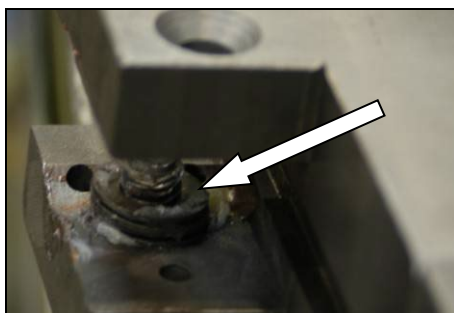
6. Remove retaining ring. Then unmount adjusting screw.



7. Remove other three screws. .



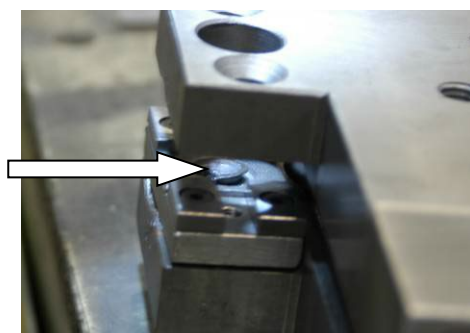
8. Carefully remove the hardmetal. *Pozor, nesmí dojít ke ztrátě talířových pružin.*



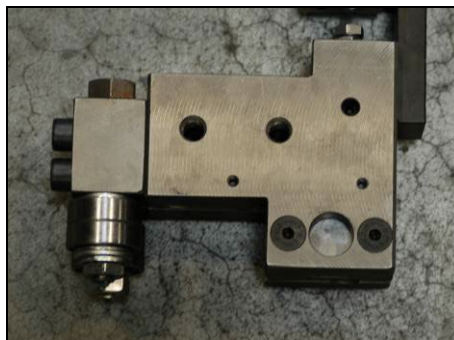
9. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the harmetal carbide.



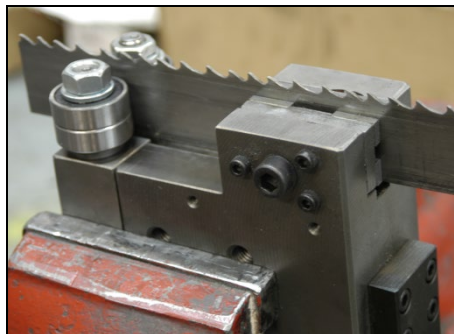
10. Insert the new hard metal guide. **Attention, Do not lose disc springs.** Ensure proper position of carbide guides – holes for 3 stop screws must be in the same position as the holes in a guiding cube.
11. Insert and tighten central screw.



12. Insert the retaining ring on central screw.
13. Insert three stop screw around central screw.



14. Insert fixed hardmetal guiding and mount hard metal with two screws.

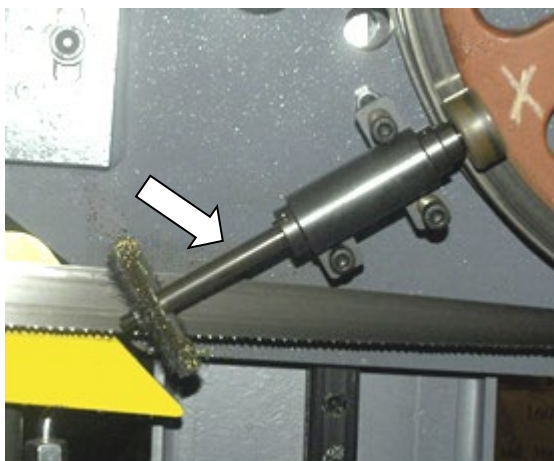


15. Using a short piece of the blade used on the machine, adjust the width of the gap between the guides. Loosen the central screw. Set the gap by central adjusting screw. Belt guides must walk freely without large and will also not scrub.

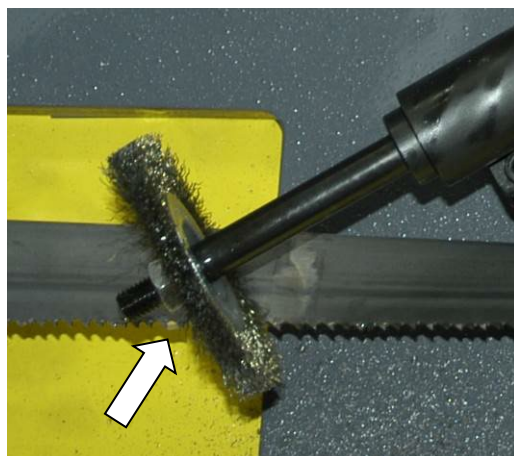
4.8.4. Austausch der Spänbürste

Ist die Spänbürste soweit abgenutzt, dass sie Ihre Aufgabe nicht mehr erfüllt, und kann sie auch nicht mehr nachgestellt werden, so ist es unbedingt notwendig die Bürste auszutauschen.

1. Rahmenabdeckung öffnen



2. Bürstenwelle z.B. mit einem Schlüssel aufhalten



Závady
Störungen
Troubleshooting

3. Lösen Sie die Mutter an der Spänbürste, ziehen Sie die Spänbürste herunter, setzen Sie die neue Spänbürste an, und ziehen Sie die Mutter wieder fest.
4. Stellen Sie die Spänbürste zum Sägeband; dass sie das Sägeband berührt.
5. Rahmenabdeckung schließen.

5. **Závady / Störungen / Troubleshooting**

5.1. Mechanical problems

Problem	Possible causes	Repair
1. Slanting cut	- Wrongly adjusted hard metal guides.	Set according to the chapter „Servicing and adjustment“
	- Worn hard metal guides.	Replace to the chapter „Worn pieces replacement“
	- Wrongly adjusted cubes of the saw band guiding.	Set according to the chapter „Servicing and adjustment“
	- Worn bearings of the saw band guiding.	Replace according to the chapter „Worn pieces replacement“
	- Wrongly adjusted swarf brush.	Set according to the chapter „Servicing and adjustment“
	- Worn swarf brush.	Replace according to the chapter „Worn pieces replacement“
	- Insufficient saw band stretching.	Rise the saw band stretching and set the limit switch.
	- Wrongly chosen tooth system of the saw band.	Replace the saw band and keep the instructions of manufacturer on new saw band choice.
	- Worn saw band.	Replace the saw band.
	- Wrongly balanced roller conveyor.	Set the roller conveyor.
	- Dirty feeding board.	Cleanse the feeding board from debris, chip and residue material.
	- Guiding arm and guiding cube are loosened.	Clamp the guiding arm.
	- Guiding arm and cube are too far from the material.	Set the guiding cube to the material.
	- Too fast cutting rate.	Lower the material feeding speed.
2. The cut is not cut upon desired angle	- Unexpected oscillation in material quality.	Set the cut and feeding speed to the relevant material.
	- Securing lever is loosened.	Check the securing lever efficiency and carry out its adjustment according to chapter „Servicing and adjustment“.
	- Set angle does not match the cut angle.	Check the angle adjustment with a protractor and possibly set it according to chapter „Servicing and adjustment“.
	- Insufficient saw band stretching.	Stretch the saw band and set the limit switch according to chapter „Servicing and adjustment“.
	- Guiding arm and guiding cube are loosened.	Fasten the guiding arm and the cube.
3. Short lifetime of the saw band	- Dirt between material and clamping jaw.	Cleanse the material and mating jaw.
	- Insufficient saw band stretching.	Raise the tightening of the saw band set the scanner of saw band tightening according to chapter „Servicing and adjustment“.
	- Worn swarf brush.	Check the swarf brush condition and replace it in case of excessive use as described in chapter „Worn pieces replacement“
	- Wrongly adjusted swarf brush.	Check swarf brush adjustment, set it according to chapter „Servicing and adjustment“

Problem	Possible causes	Repair
	- Over stretched saw band	Lower stretching of the saw band and set the limit switch of the saw band stretching according to chapter „Servicing and adjustment“
	- Wrongly adjusted hard metal guides.	Check the adjustment of the hard metal guides and carry out adjustment as described in chapter „Servicing and adjustment“
	- Worn hard metal guides of the saw band.	Check the condition of the hard metal guide and if it is too worn, replace hard metal guides according to chapter „Worn pieces replacement“
	- Worn saw band guide bearings.	Check guiding bearings and if you notice some sort of excessive damage, replace them according to chapter „Worn pieces replacement“
	- Wrongly adjusted guiding cubes of the saw band.	Set guiding cube according to chapter „Servicing and adjustment“
	- Wrongly adjusted down feed and saw band speed.	Adjust the feeding and speed of a saw band according to values published by saw band manufacturer.
	- Different material quality.	Adjust feeding and speed of a saw band according to desired material (try cut-test).
	- Low-class saw band	Replace the saw band (contact your local accessory supplier for more information)
	- Wrongly chosen saw band tooth system.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrongly adjusted tracking.	Check the space between top of a saw band and driving wheel. Perhaps adjust the tracking as described in chapter „Servicing and adjustment“
4. Insufficient cut output.	- Worn saw band.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrong saw band tooth system.	Replace the saw band and keep instructions of the manufacturer on the choice.
	- Wrongly set down feed and speed of a saw band.	Set feed and speed of a saw band according to values published by saw band manufacturer.
5. The cut is not finished.	- Wrongly adjusted lower stop point of the saw frame.	Check lower limit switch and screw.
	- Stop point surface is messed-up.	Cleanse stop point surface of the limit switch from debris and residue material.
6. By choke is not possible turn	- Metal clamps between valve and panel.	Clamps must be removed and put on the shaft O-Ring about 10x2 mm.
	- Metal clams are in body of valve.	Valve must be cleared or changed.
7. Saw band drive cannot be started.	- Pressure switch is adjusted wrong.	Set the pressure switch according to chapter „Servicing and adjustment“
	- Pressure switch is defective.	Replace defective parts of the pressure switch.
8. The saw bands are cracked.	- In stretching wheel is wrong adjusting geometry.	Adjust distance band from recess wheel c.2 mm according to operating instructions.
	- Hard metal plates of circuit saw band are not adjusting.	Hard metal plates of circuit saw band must be adjusting according to operating instructions.
	- Guiding cubes are not adjusting (bearings + hard metal circuit)	Guiding cubes must be adjusting (bearings + hard metal circuit) according to operating

Problem	Possible causes	Repair
		instructions.
	- Bearings of guiding cubes are used (rolling elements are damaged or outside ring of bearing has conical form).	Bearings of guiding cubes must be replaced. Bearings must be adjusting according to operating instructions.
9. Damage tooth system of the saw band	- In gripping the lifting cylinder is backlash.	
	- Squeezed pin upper or downer holder of the lifting cylinder.	Exchange complete upper or downer holder of lifting cylinder.
10. The saw is cut downing.	- Geometry of hardmetal guiding cubes is wrong adjusted.	Hardmetal guiding cubes must be adjusted.
	- Bearings of guiding cubes are used.	Bearings of guiding cubes must be replaced.
11. Cleansing of the saw band is not functional.	- Elastic wheel of the brush drive is worn-down.	Elastic wheel of the brush must be changed.
	- Knurling of the driving wheel is worn-down.	Driving wheel must be changed.
	- The shaft of the brush drive is rusted.	The shaft of the brush must be cleaned and oiled.
	- The brush position and the brush cover is adjusted wrong – with the brush cannot be turned.	The brush cover must be posed, in order to the brush can be turned.
12. The saw arm periodically rise and fall during the cut; this cause short lifetime of the saw band.	- Backlash in driving wheel lodgement on the shaft.	Change the driving shaft for a long one, new bearings, distance ring, new driving wheel, spring, two covers on the forehead of the shaft + screws.
	- Worn channel for spring.	

5.2. Electric and hydraulic problems

Problem	Possible causes	Repair
1. Machine is not possible start.	- In socket is not voltage	Line voltage must be checked.
	- Transfer relay is closed (thermal protector)	Each FA relay must be checked.
	- Limit switch of saw band stretching, cover of frame or cover of saw band is not started.	Check of saw band stretching and covers closing.
2. When cut is finished, the frame is not raising.	- Bottom limit switch is adjusted wrong.	Bottom limit switch must be adjusted according to chapter ADJUSTING.
	- In hydraulic (pneumatic) ring is error. HYTOS (BOSCH) is not acting to frame uplift.	Function of magnetic valve must be checked, valve must be closed, voltage of clamps and inductor must be checked.
3. Electric motor and pump are without voltage. Between contactor and thermal protector is not voltage.	- Wrong contactor.	Replace contactor of engine.

Problem	Possible causes	Repair
4. The indicator of speed saw band is not functional.	- Sensor of speed is not adjusted.	Sensor of speed must be adjusted.
	- Defective display	The display must be changed.
	- Wrong sensor – diode of indicator speed is not light.	Sensor must be changed and adjusted.
5. Protector is switched off from engine hydraulic aggregate MA3 sometimes.	- Into hydraulic system is high working pressure.	Service engineer must reduce the pressure in hydraulic system.
6. The hydraulic aggregate cannot be started	Auxiliary contact on thermo-relay FA1 is defective.	Replace the defective contact on motor starter FA1.
7. Hydraulic aggregate is switched on but the saw arm or the main vice is not functional	- Wrong connection of electrical supply. The electrical phases are connected conversely.	The phases must be switched. Only service engineer can do this.
8. Cooling is not active	Lack of cooling agent.	Fill the tank with cooling agent.
	- Thermal relay is defective	Change the thermal relay
	- Input hosepipe is broken or obstructed.	Check the cooling circuit and perhaps cleanse cooling system.
	- Cooling pump protection is defective	Check the protection of cooling pump if need change it.
	- Cooling pump is defective.	Replace the cooling pump.

6. **Schémata / Schemas / Schematics**

Schémata
Schemas
Schematics

6.1. Elektrické schéma /
Elektroschema /
Wiring diagrams 3x400V + PE/50Hz

Schémata
Schemas
Schematics

	BOMAR s.r.o. Těžební 1236/1 CZ 627 00. Brno	Stroj/Machine/Maschine: INDIVIDUAL 520.360 GANC LS	Řízení strojů/Name page/Name side: Úvodní strana / Start page / Startseite	Verz. /Version/Version: Typ/Typ/Power supply/Einspeisung: Datum/Date/Date: ES-L300D-201/202-V7.1 3x400V + PE / 50Hz 3.2.2017	2
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2.a	Obsah / Content / Inhalt	5.6.2017
3	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.a	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.b	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.c	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.d	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.e	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.f	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.g	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
4	Plán konektoru -X2 / Connector plan -X2 / Stecker Zeitplan -X2	5.6.2017
5	Plán konektoru -X3 / Connector plan -X3 / Stecker Zeitplan -X3	5.6.2017
6	Rozmístění prvků v rozvaděči R1, R2/ Placement of elements in enclosure R1, R2	5.6.2017
7	Ovládací panel / Control panel / Schalttafel	5.6.2017
8	Slonová část / Power part / Feld partie	5.6.2017
9	Čerpadlo chlazení, Hydraulika / Coolant pump, Hydraulics / Kühlmittelpumpe, Hydraulik	5.6.2017
10	Vynášec třísek / Swarf removal / Späneentfernung	5.6.2017
11	Pilový pás / Saw belt / Sägerriemen	5.6.2017
12	Podavač / Feeder / Zubringer	5.6.2017
13	Napájení ovládací části 24Vdc / Power supply of control part 24Vdc / Stromversorgung des Steuerteils 24Vdc	5.6.2017
14	Bezpečnostní obvod / Safety circuit / Sicherheitskreis	5.6.2017
15	Bezpečnostní závory / Safety barriers / Sicherheitsbarrieren	5.6.2017
16	CPU - AI, DI	5.6.2017
17	CPU - DI, RS232	5.6.2017
18	CPU - DI	5.6.2017
19	CPU - DI, FDI	5.6.2017
20	CPU - DO, DI	5.6.2017

1	BOMAR, s.r.o. Třebeň 1236/1 CZ 627 00, Brno	Strajf/Machine/Maschine: INDIVIDUAL 520.360 GANC LS	Název obrázku/Name page/Name section: Obsah / Content / Inhalt	Verze/Version/ Vergleich/Power supply/Ernennung: Datum/Date/Datum: Zpracoval/Processed/Has, version:Kosba	ES-L3000-201/202-V7.1 3x400V + PE / 50Hz 5.6.2017 Kosba	Lib: 2 Lib: 37
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23	Vstupy / Inputs / Eingänge	5.6.2017
24	Výstupy / Outputs / Ausgänge	5.6.2017
25	Výstupy / Outputs / Ausgänge	5.6.2017
26	Napínání pásu / Belt tensioning / Riemenspann	5.6.2017
27	Display, klávesnice / Display, keyboard / Display, Tastatur	5.6.2017
28	Topologie / Topology / Topologie	5.6.2017
29	Příslušenství / Accessories / Zubehör	5.6.2017

BOMAR, s.r.o. Třebeň 1236/1 CZ 627 00, Brno	Strap/Mechanic/Mechanik: INDIVIDUAL 520.360 GANC LS	Název stránky/Name page/Name seiten: Obsah / Content / Inhalt	Verze/Version: Napájení/Power supply/Ermächtig: Datum/Date/Datum: Zpracoval/Processed/Has vera: toget:	ES-L3000-201/202-V2.1 2x400V + PE / 50Hz 5.6.2017 Kozla	Let: 2.a Lich:	37
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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
-A5.1	Modul digitálních vstupů Digital input module Digitales Eingangsmodul	X20D9371	B&R	91.995.212	1	/23.0
-A5.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/23.0
-A5.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/23.0
-A7.1	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul	X20D08332	B&R	91.995.213	1	/24.0
-A7.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/24.0
-A7.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/24.0
-A7.2	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul	X20D08332	B&R	91.995.213	1	/25.0
-A7.2	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/25.0
-A7.2	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/25.0
-A8.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/28.3
-A8.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/28.3
-A8.1	Sběrníkový vysílač X2X link Bus transmitter X2X link Bus Sender X2X Link	X20ET9100	B&R	91.995.713	1	/28.3

The manufacturer reserves right to use an equivalent replacement device.

2.a	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Mechanism/Modul: INDIVIDUAL 520.360 GANC LS	Název dílů/Items name/Name artikel: Kusovník artiklů / Parts list / Artikelstückliste	Verz./Version/Version: Napájení/Power supply/Alimentation: Datum/Date/Datum: Zpracoval/Processed/Not. vera. laget: Kosla	ES-13000-201/202-V7.1 3x400V + PE / 50Hz 5.6.2017 Kosla	3.a	Uit: 3 37
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The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těšební 1236/1 ČZ 627 00, Brno	Stroj/Machine/Machine: INDIVIDUAL 520.360 GANC LS	Název stránky/Website: Kusovník artiklů / Parts list / Artikelsuchliste	Verze / Version/Version: F51.13000.701.0202.VP7.1	Idet.: 3-5
			Název / Name / Name/Emplacement: 29x3009 x PE / 58Hre	Idet.: 3-5
			Datum/Datum/Date: 5.5.2017	Idet.: 37
			Zdrojové číslo/Source code/Source code: K0000	

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
-F.U1.2	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	/13.4
-F.U1.3	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/TH5SU	WIELAND	91.251.102	1	/13.4
-F.U1.3	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/13.4
-H1.1	Signálka zelená na adaptér Green light for Eaton adapter Grünes Licht für Eaton-Adapter	M22-LED-G	EATON	91.061.023	1	/20.3
-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	/14.6
-I.RC2.1	Lineární inkrementální snímač - 10-30VDC/10-30VDC Linear Encoder - 10-30VDC / 10-30VDC Linear-Encoder - 10-30VDC / 10-30VDC	LMIX2-026-08-0-1-00-L	ELGO	92.270.018	1	/19.5
-KL	Převodník matricové klávesnice na RS232 Matrix keyboard converter to RS232 Matrix Tastatur Konverter auf RS232	HT4666-232	ASTP s.r.o.	91.995.101	1	/27.2
-KL	Klávesnice fólová Foil keyboard Folientastatur	31.ER2530-303	AKI ELECTRONIC spol.s r.o.	31.ER2530-303	1	/27.2
-KM1.1	Minisvkač - 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
-KM1.2A	Svkač - 4kW/400V, 3P Contactor - 4kW/400V, 3P Schütz - 4 kW / 400V, 3P	AF09-30-01-11	ABB	91.040.047	1	/21.2
-KM1.2B	Svkač - 4kW/400V, 3P Contactor - 4kW/400V, 3P Schütz - 4 kW / 400V, 3P	AF09-30-01-11	ABB	91.040.047	1	/21.3
-KM1.2B	Mechanické blokování Mechanical interlock unit Mechanische Interlockeinheit	VM4	ABB	91.041.045	1	/21.3

The manufacturer reserves right to use an equivalent replacement device.

3.a	BOMAR, s.r.o. Tržební 1236/1 CZ 627 00, Brno	Strap/Mechanical/Mechanisch: INDIVIDUAL 520.360 GANC LS	Název dílů/Items name/Items name: Kusovník artiklů / Parts list / Artikelstückliste	Verz./Version/Version: Napájení/Power supply/Anschaltung: Datum/Date/Datum: Zpracoval/Processed/Her. vera./gepr.	ES-13000-201/202-V7.1 3A 5.6.2017 Kosla	3.c	37
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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
-KM1.2B	Pomocný kontakt - 1xNO Auxiliary contact - 1xNO Hilfskontakt - 1xNO	CA4-10	ABB	91.041.044	2	/21.3
-KM1.3	Ministrykač - 4kW/400V, 3P Mini contactor - 4kW/400V, 3P Mini-Schütz - 4kW/400V, 3P	86S-30-10-1.7-71	ABB	91.040.048	1	/24.6
-KM11	Stykač - 5,5kW/400V, 3P Contactor - 5,5kW/400V, 3P Schütz - 5,5kW / 400V, 3P	AF12-30-01-11	ABB	91.040.051	1	/14.7
-KM12	Stykač - 5,5kW/400V, 3P Contactor - 5,5kW/400V, 3P Schütz - 5,5kW / 400V, 3P	AF12-30-01-11	ABB	91.040.051	1	/14.8
-LQ2.1A	Laserová závara - vysílač Laser barrier - transmitter Laserschranke - Sender	BLS 18KW-XX-1LT-S4-L	BALLUFF	91.400.004	1	/23.6
-LQ2.1B	Laserová závara - přijímač Laser barrier - receiver Laserschranke - Empfänger	BLE 18KW-PA-1LT-S4-C	BALLUFF	91.400.003	1	/23.5
-M1.6	Ventilátor 24VDC, 154CFM Fan 24VDC, 154CFM	RDH1238 B2	Xinnilian Electronic Co.	91.015.126	1	/11.8
-PA1.1	Pojistkový odřinač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schaller Sicherung für den Zylinderreinsätze - 3P	E93/32	ABB	91.241.014	1	/11.1
-PA1.1	Pojistka válcová - 16A, 10x38, pomalá Tube fuse - 16A, 10x38, slow Rohrsicherung - 16A, 10x38, langsam	PV10 16A aM	OEZ	91.230.043	3	/11.1
-PA1.2	Pojistkový odřinač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schaller Sicherung für den Zylinderreinsätze - 3P	E 93/32	ABB	91.241.014	1	/13.1
-PA1.2	Pojistka válcová - 2A, 10x38, pomalá Tube fuse - 2A, 10x38, slow Rohrsicherung - 2A, 10x38, langsam	PV10 2A gG	OEZ	91.230.034	3	/13.1
-PA2.1	Pojistkový odřinač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schaller Sicherung für den Zylinderreinsätze - 3P	E93/32	ABB	91.241.014	1	/12.1

The manufacturer reserves right to use an equivalent replacement device.

3.b	 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Mechanic/Nameplate: INDIVIDUAL 520.360 GANC LS	Název dílů/Name parts/Name section: Kusovník artiklů / Parts list / Artikelstückliste	Verze /Version/Version: Napájení/Power supply/Power supply: Datum/Date/Date: Zpracoval/Processed/Not. vera. by:	ES-13000-201/202-V2.1 3x400V + PE / 50Hz 5.6.2017 Kozla	3.d
				Liet:	3.c	
				Liet:	37	

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
-PA2.1	Pojistka válcová - 10A, 10x38, pomalá Tube fuse - 10A, 10x38, slow Rohrsicherung - 10A, 10x38, langsam	PV10 10A 3M	OEZ	91.230.041	3	/12.1
-QS1.1	Rukojeť odpináče 48x48mm - černá Handle switch 48x48mm - black Griffschalter 48x48mm - Schwarz	OHBS3PH	ABB	91.180.018	1	/8.1
-QS1.1	Kryt svorek Terminal shroud Klemmenabdeckung	OTS40T3	ABB	91.170.017	1	/8.1
-QS1.1	3 pólový odpináč, 25A Disconnecter - 3p, 25A Trennschalter - 3p, 25A	OT25FT3	ABB	91.170.016	1	/8.1
-R2.1	Brzdňý odpor 150Ω Braking resistor 150Ω Bremswiderstand 150Ω	BR200W150	DELTA ELECTRONICS, INC.	91.012.120	1	/12.2
-RCF0	Odušovací filtr 25A Noise filter 25A Rauschfilter 25A	25FB15/50/C2	WIDECOM TECHNOLOGY s.r.o.	91.041.063	1	/8.2
-RCF1.1	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/9.1
-RCF1.2A	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/9.5
-RCF1.2B	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/9.7
-RCF1.3	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/10.3
-RCF11	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/8.5
-RCF12	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/8.7

The manufacturer reserves right to use an equivalent replacement device.

3.c	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Strap/Markierung/Bezeichnung: INDIVIDUAL 520.360 GANC LS	Název dílů/Parts list/Name des Bauteils: Kusovník artiklů / Parts list / Artikelstückliste	Verz./Version/Version: ES-13000-201/202-V7.1 Ingident/Power supply/Anschaltung: 3x400V + PE / 50Hz Datum/Date/Datum: 5.6.2017 Zpracoval/Processed/Her. verva. hergestellt: Kosla	3.e Liet: 3.d Lietli: 37
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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
-RP1	Potenciometr 4k7 Potentiometer 4k7 Potentiometer 4k7	TP195 4k7/N20A	Elektronické součástky CZ, a.s	91.283.015	1	/11.5
-RP1	Svorka rychloupínací Fastconnect clamp Fast Connect Klemm	WAGO 224-112	WAGO	91.250.009	3	/11.5
-RP1	Hlavice potenciometru - 24mm Head of potentiometer 24mm Leiter Potentiometer 24mm	S8877 BLK	GES-ELECTRONICS, a.s.	91.060.063	1	/11.5
-SA1.1	Hlavice 3 položového přepínače, klíček Head of 3 positional key switch Leiter der 3-Position Schlüsselschalter	M22-WRS3	EATON	91.060.058	1	/18.3
-SA1.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/18.3
-SA1.1	Kontaktní blok - 1NO Contact block - 1NO Kontaktblock - 1NO	M22-K10	EATON	91.061.022	1	/18.3
-SB1.1	Hlavice dvojitáčka bílý/černá start/stop Double button head white/black start/stop Doppelrundkopf weiß/schwarz Start/Stop	M22-DOL-W5-GB1/GB0	EATON	91.060.034	1	/18.1
-SB1.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/18.1
-SB1.2	Kontaktní blok - 1NC Contact block - 1NC Kontaktblock - 1NC	M22-K01	EATON	91.061.024	1	/18.2
-SB500	Total stop - hlavice + 3xNC Emergency-stop mushroom push - button + 3xNC Not-Aus-Pilz - Taster + 3 xNC	YW1B-VAE02R	IDEC	91.060.084	1	/14.4
-SB500	Kontakt - 1x NO Contact - 1x NO Kontakt - 1x NO	YW-E10	IDEC	91.061.044	1	/14.4
-SB510	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/14.7

The manufacturer reserves right to use an equivalent replacement device.

3.d	 BOMAR, s.r.o. Třebeň 1236/1 CZ 627 00, Brno	Stroj/Machine/Nameplate: INDIVIDUAL 520.360 GANC LS	Název dílů/Name parts/Name section: Kusovník artiklů / Parts list / Artikelstückliste	Verze /Version/Version: ES-13000-201/202-V2.1	3.f
				Typ/Power supply/Power supply: 3x400 V + PE / 50Hz	
				Datum/Date/Date: 5.6.2017	
				Zpracoval/Processed/Not. vera. by: Kozla	

Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Part number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SB510	Hlavice prosvětleného tlačítka žlutá Yellow transparent switch Leiter beleuchtet gelbe Taste	M22-DL-Y	EATON	91.060.053	1	/14.7
-SQ1.1	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/20.5
-SQ1.5	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/20.6
-SQ2.1	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.1
-SQ2.2	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.1
-SQ2.3	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.2
-SQ2.4	Indukční snímač - Sn=1,5mm Inductive sensors - Sn = 1.5 mm Induktive Sensoren - Sn = 1,5 mm	JPS 30D 081.5 PNOFC	BALLUFF	91.172.009	1	/23.3
-SQ2.5	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.4
-SQ10	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/14.4
-SQ11	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/14.2
-T30	CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7"	T3057CP1382	B&R	91.995.253	1	/27.5

3.e

Verze / Version / Version:

ES-13000-201/202-V2.1

Typ přístroje / Device description / Gerätebeschreibung:

2x400V + PE / 50Hz

Datum / Date / Datum:

5.6.2017

Zpracoval / Processed by / Verarbeitet:

Kozla

Lič:

3,4

Ličů:

37

3.g

Název zařízení / Name of the device / Name des Gerätes:

Kusovník artiklů / Parts list / Artikelstückliste

Stručná technická specifikace / Short technical specification / Kurze technische Spezifikation:

INDIVIDUAL 520.360 GANC LS

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



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	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-ZD1.1	Náhradní zdroj - 3x400VAC/24VDC, 10A Power supply - 3x400VAC/24VDC, 10A Stromversorgung - 3x400VAC/24VDC, 10A	CP-T 24/10	ABB	91.085.030	1	/13.2

The manufacturer reserves right to use an equivalent replacement device.

3. f			4		
 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: INDIVIDUAL 520.360 GANC LS		Název dílů/Name part/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste		Verz./Version/Version: ES-L3000-201/202-V7.1
					Liet: 3,9
					Liet: 37

Plán konektoru Connector plan Stecker Zeitplan

Konektor Connector Stecker	Cíl konektoru Connector target Stecker-Ziel	Kontakt Contact Kontakt	Cíl zásuvek Outlet target Outlet-Ziel	Stránka / sloupec Page / Column Seite / Spalte
= +-X2				
	+R2-XC5:85	1	+R1-XC5:85	/12.4
	+R2-XC2:200	2	-FU1.3	/13.6
	+R2-XC1:100	3	-ZD1.1	/13.6
	+R2-XC4:229	4	+R1-XC4:229	/23.1
	+R2-XC4:230	5	+R1-XC4:230	/23.1
	+R2-XC4:231	6	+R1-XC4:231	/23.2
	+R2-XC4:232	7	+R1-XC4:232	/23.3
	+R2-XC4:233	8	+R1-XC4:233	/23.4
	+R2-XC4:234	9	+R1-XC4:234	/23.4
	+R2-XC4:235	10	+R1-XC4:235	/23.5
	+R2-XC4:236	11	+R1-XC4:236	/23.6

3.g

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stručná/Mechanická/Technická: INDIVIDUAL 520.360 GANC LS	Název schématu/Name of the schematic: Plán konektoru -X2 / Connector plan -X2 / Stecker Zeitplan -X2	Verze /Version/ Vydání/Issue /ausg./ Datum/Date/ Zpracoval/Prepared by: Kosla	ES-1300-201/202-V2.1	Liet:
				3x400V + PE / 50Hz	4
				5.6.2017	37

**Plán konektoru
Connector plan
Stecker Zeitplan**

Konektor Connector Stecker	Cíl konektoru Connector target Stecker-Ziel	Kontakt Contact Kontakt	Cíl zásuvek Outlet target Outlet-Ziel	Stránka / sloupec Page / Column Seite / Spalte
= +-X3				
	+R2-XC5:319	1	+R1-XC5:319	/25.2
	+R2-XC5:320	2	+R1-XC5:320	/25.3
	+R2-XC5:321	3	+R1-XC5:321	/25.3
	+R2-XC5:322	4	+R1-XC5:322	/25.4
	+R2-XC5:323	5	+R1-XC5:323	/25.5



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

Stručný popis/Name:
INDIVIDUAL 520.360 GANC LS

Název schématu/Name:
Plán konektoru -X3 / Connector plan -X3 / Stecker Zeitplan -X3

Verze /Version:
ES-1300-201/202-V2.1
Typ/Power supply/Ernennung:
3x400V + PE / 50Hz
Datum/Date/Datum:
5.6.2017
Zpracoval/Processed/Ver. von:
Kosida

Let:
5
Lith:
37



Nížež stránky/název page/název sekce:
 Rozmístění prvků v rozvaděči R1, R2/ Placement of elements in enclosure R1, R2/ Platzierung der Elemente im Schaltschrank R1, R2

INDIVIDUAL 520.360 GANC LS

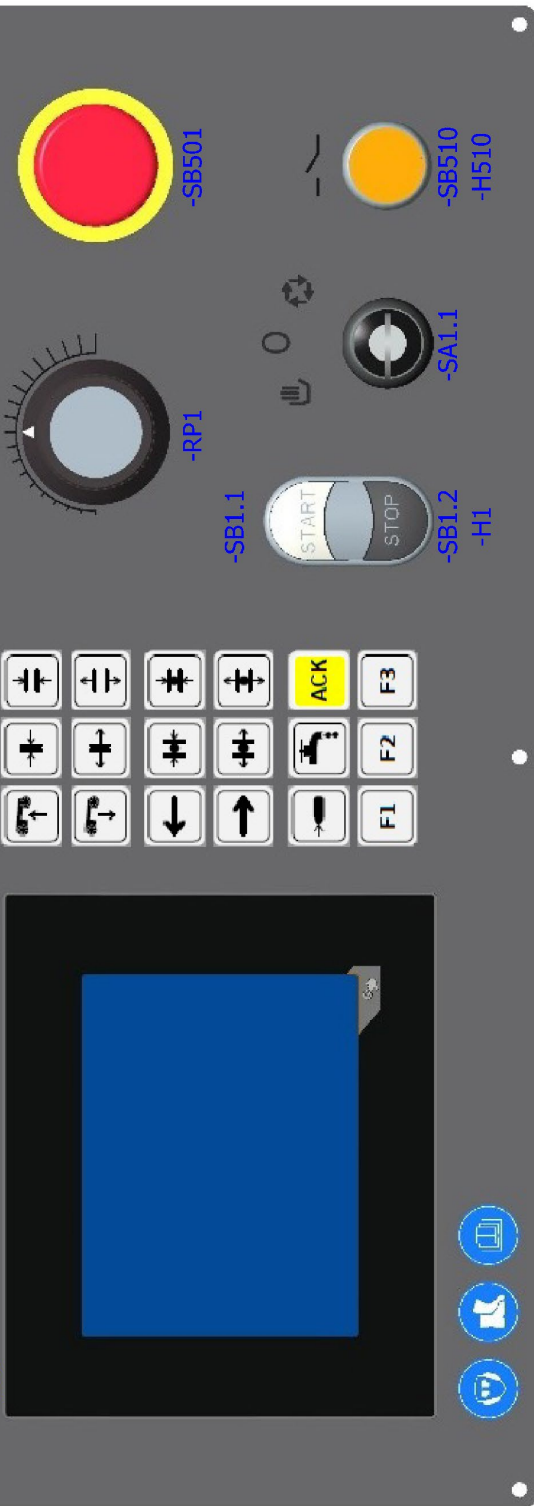
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno

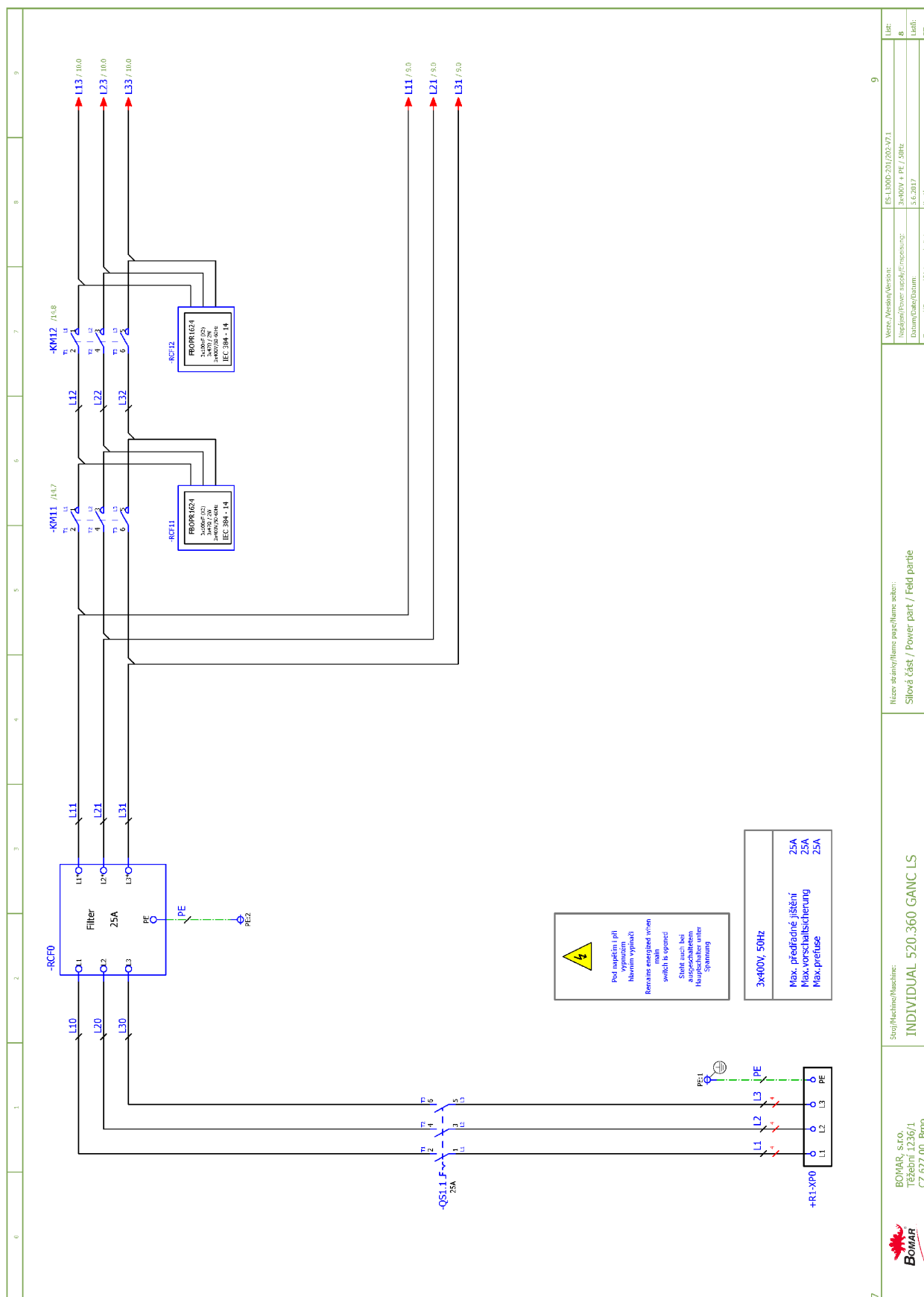


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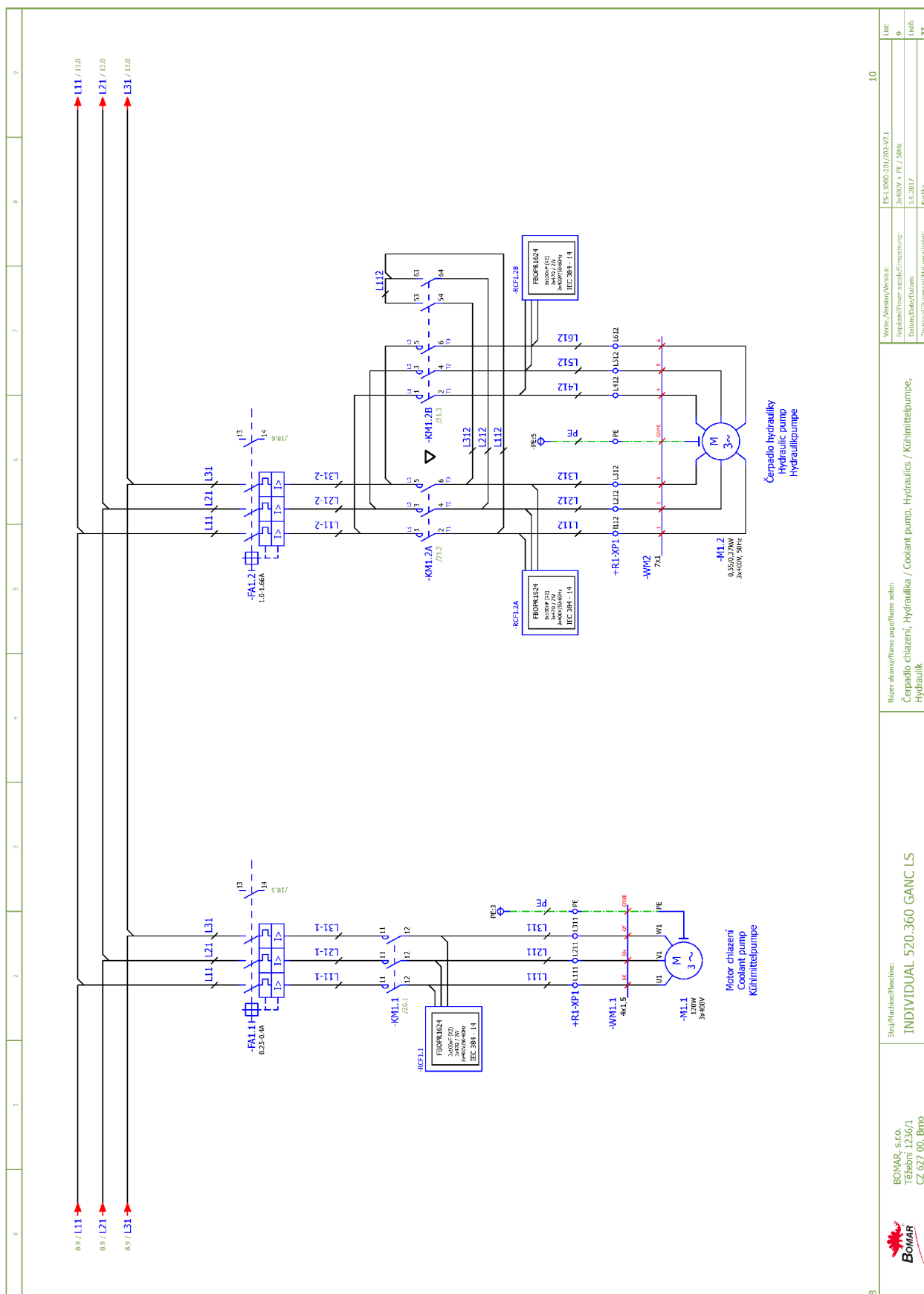
Bomar

-T30

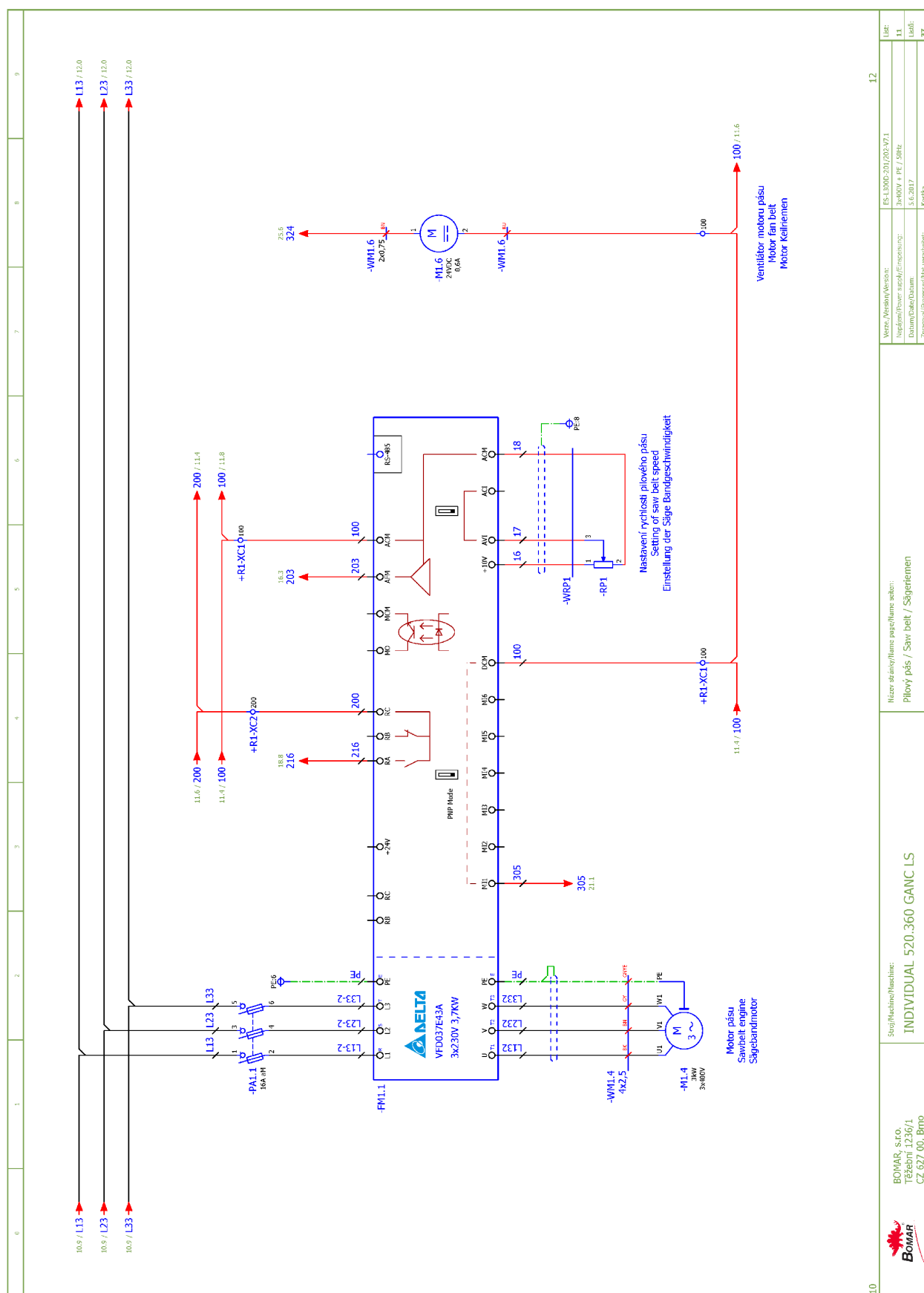




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		INDIVIDUAL 520.360 GANC LS	Silová část / Power part / Feld partie	3x400V + PE / 50Hz	8	
				Datum/Date/Datum:	5.6.2017	Líst:
						9









Verz./Version/Version:	ES-L3000-2012-07.1	List:
Vapjel/Power supply/Einspeisung:	3x400V + PE / 50Hz	12
Datum/Date/Datum:	5.6.2017	Luftf:
Signature of Document/Objekt unterschreiben:	Koch	977

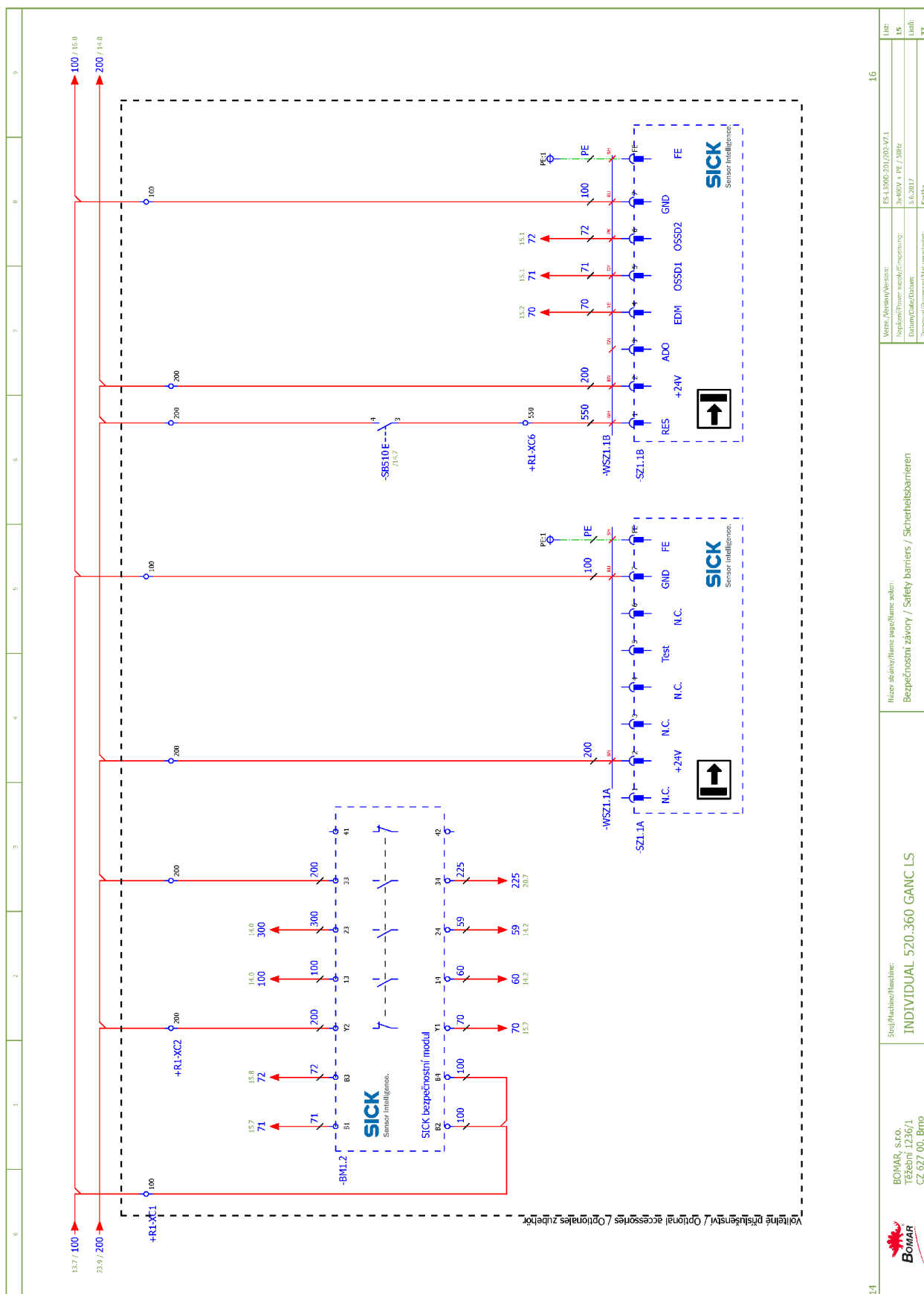
Název stránky/Name page/Name seiten:
Podavač / Feeder / Zubringer

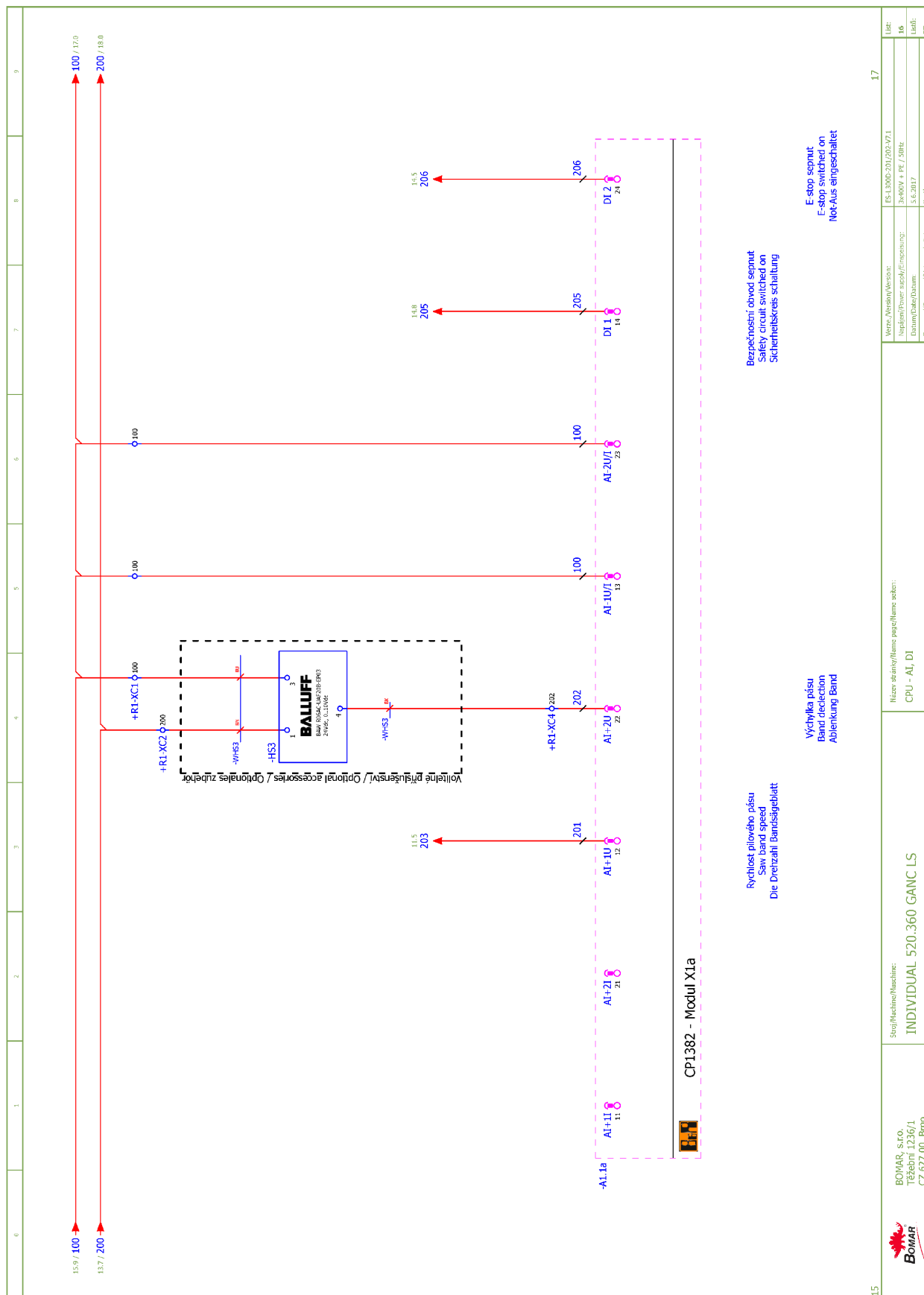
troj/Machine/Maschine:
INDIVIDUAL 520.360 GANC LS

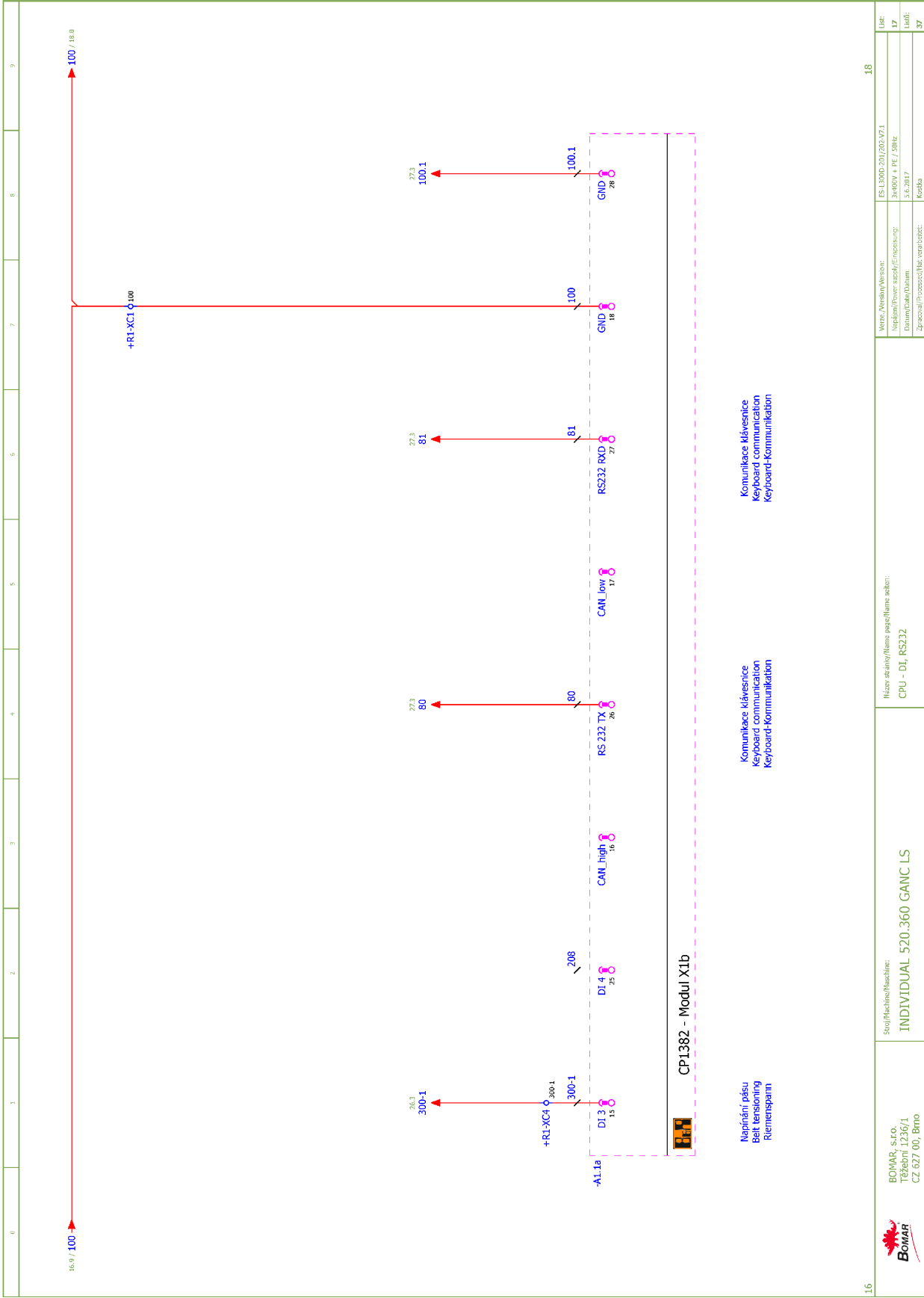
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno





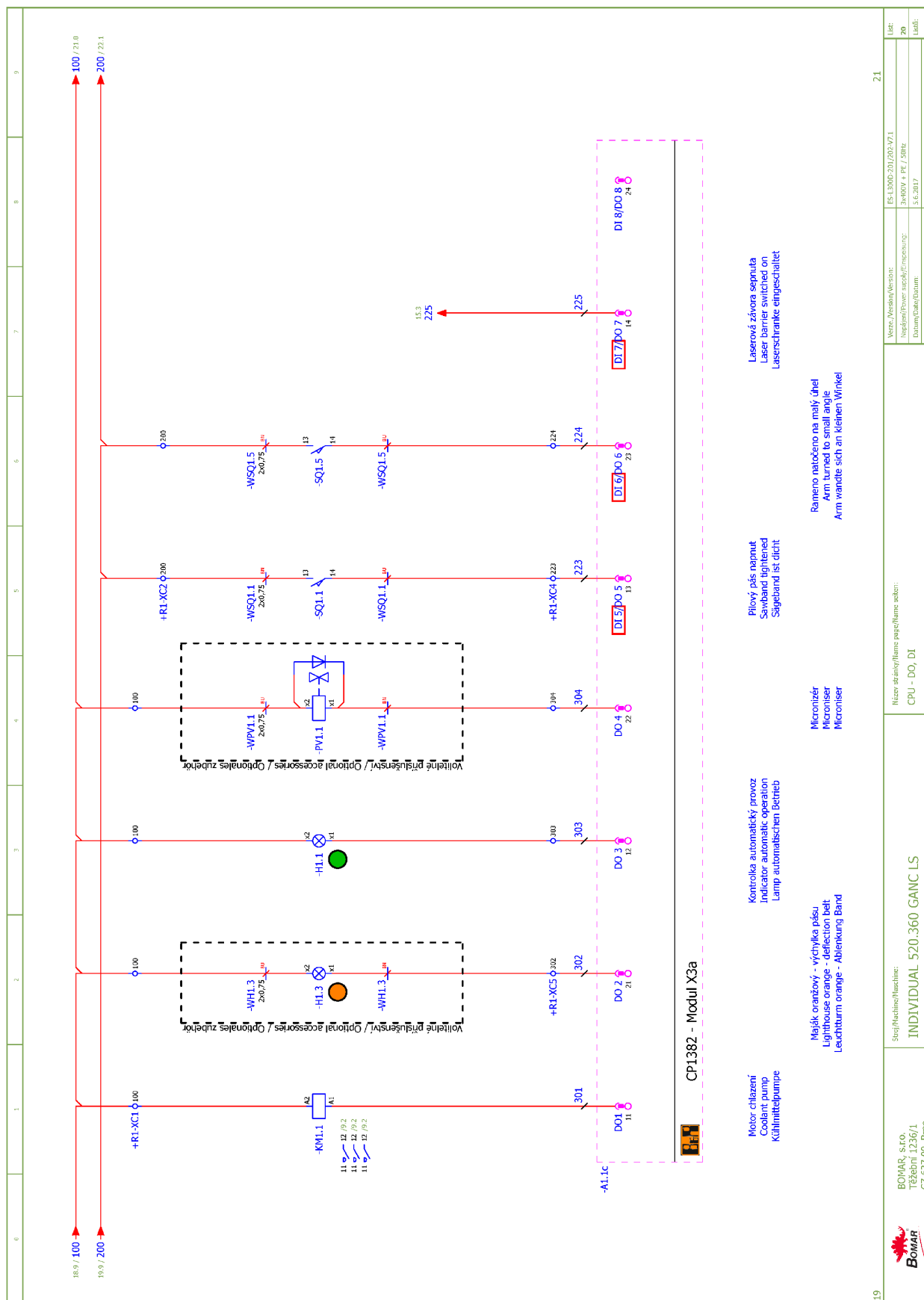


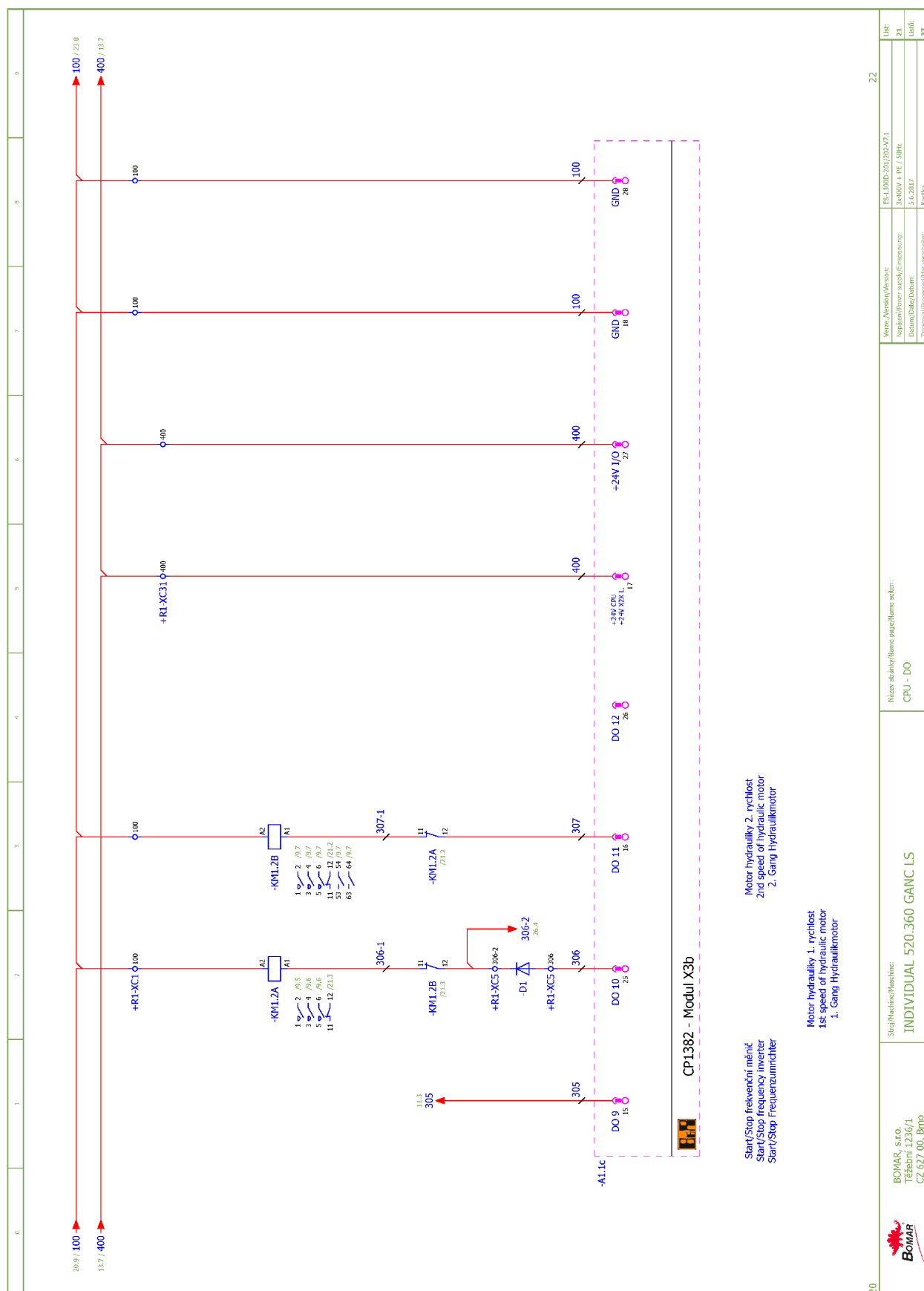








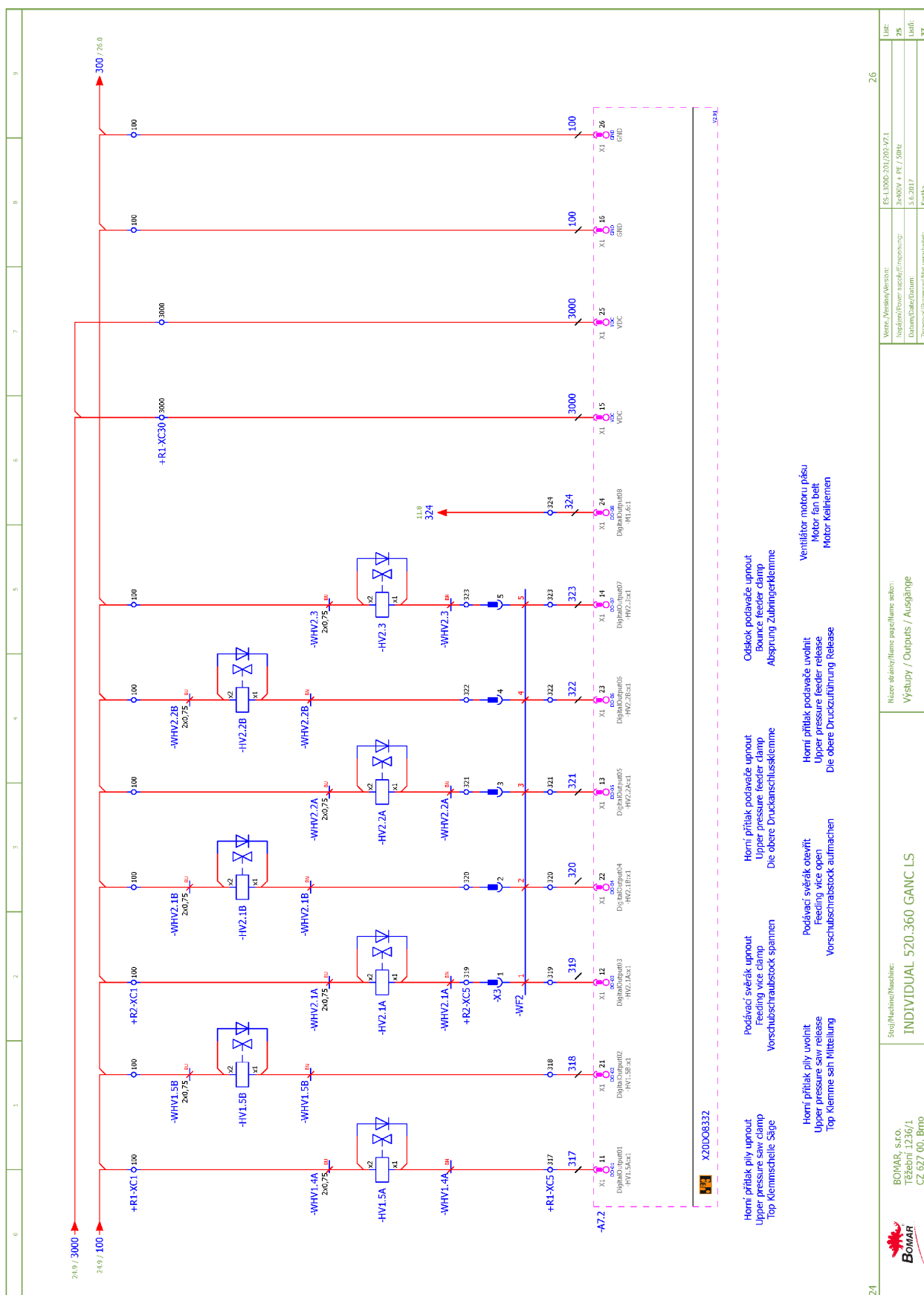
















Topology

The diagram illustrates a network topology for a PLC system. The central component is the PLC (A1.1), which is connected to a Feeder (FM2.1) and a Display (T30). The PLC has three main ports: IF2 Ethernet, IF2 Powerlink, and IF2 RS485. The Feeder has a port for IF2 Ethernet. The Display has a port for IF2 Ethernet. The connections are as follows:

- The PLC (A1.1) is connected to the Feeder (FM2.1) via a cable labeled -WX2X1.
- The PLC (A1.1) is connected to the Display (T30) via an Ethernet cable labeled -ETH1.
- The Feeder (FM2.1) is connected to the Display (T30) via a cable labeled -FM2.1.

ETHERNET
POWERLINK

The diagram shows the connection of an RJ45 cable to a PLC. The cable is labeled 87654321 and 12345678. The PLC has a port labeled RJ45 Male Plug and another labeled RJ45 Female.

Color Standard
EIA/TIA 568A

Pair	Pair	Pair	Pair
1	2	3	4
5	6	7	8
Green/White Tracer	Green	Blue/White Tracer	Blue
Orange/White Tracer	Orange	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Orange/White Tracer	Orange
Blue/White Tracer	Blue	Brown/White Tracer	Brown
Brown/White Tracer	Brown	Green/White Tracer	Green
Blue/White Tracer	Blue	Orange/White Tracer	Orange
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Orange/White Tracer	Orange	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Orange/White Tracer	Orange
Blue/White Tracer	Blue	Brown/White Tracer	Brown
Brown/White Tracer	Brown	Green/White Tracer	Green
Blue/White Tracer	Blue	Orange/White Tracer	Orange
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Orange/White Tracer	Orange	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Orange/White Tracer	Orange
Blue/White Tracer	Blue	Brown/White Tracer	Brown
Brown/White Tracer	Brown	Green/White Tracer	Green
Blue/White Tracer	Blue	Orange/White Tracer	Orange
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Orange/White Tracer	Orange	Brown/White Tracer	Brown
Blue/White Tracer	Blue	Green/White Tracer	Green
Brown/White Tracer	Brown	Blue/White Tracer	Blue
Green/White Tracer	Green	Orange/White Tracer	Orange
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Blue/White Tracer	Blue	Green/White Tracer	Green
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Green/White Tracer	Green	Orange/White Tracer	Orange
Blue/White Tracer	Blue	Brown/White Tracer	Brown
Brown/White Tracer			



- 6.2. Elektrické schema /
Elektroschema /
Wiring diagrams 3x230V + PE/50Hz



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

INDIVIDUAL 520.360 GANC LS

ES-L300D-203-V7.1

Wiring diagram

3x230V + PE / 50Hz

	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Machine: INDIVIDUAL 520.360 GANC LS	Název stránky/Name page/Name sheet: Úvodní strana / Start page / Startseite	Verz. /Verz. /Version: Nápis/Drawn / made/Engineering: Datum/Date/Drawn: Zpracoval /Processed/Not. ver. /Notet:	ES-L300D-203-V7.1 3x230V + PE / 50Hz 1.6.2017 Kozla	List: z Kauč: 37

Obsah / Table of contents / Inhalt

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2	Obsah / Content / Inhalt	5.6.2017
2.a	Obsah / Content / Inhalt	5.6.2017
3	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.a	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.b	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.c	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.d	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.e	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
3.f	Kusovník artiklů / Parts list / Artikelstückliste	5.6.2017
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4	Plán konektoru -X2 / Connector plan -X2 / Stecker-Zeitplan -X2	5.6.2017
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11	Pilový pás / Saw belt / Sägerriemen	5.6.2017
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14	Bezpečnostní obvod / Safety circuit / Sicherheitskreis	5.6.2017
15	Bezpečnostní závary / Safety barriers / Sicherheitsbarrieren	5.6.2017
16	CPU - AI, DI	5.6.2017
17	CPU - DI, RS232	5.6.2017
18	CPU - DI	5.6.2017
19	CPU - DI, FDI	5.6.2017
20	CPU - DO, DI	5.6.2017

1	BOMAR, s.r.o. Tržební 1236/1 CZ 627 00, Brno	Strap/Mechanic/Neuhäuser: INDIVIDUAL 520.360 GANC LS	Název strany/Page name/Name section: Obsah / Content / Inhalt	Verze/Version/Version: Typident/Power supply/Finishing: Datum/Date/Datum: Zpracoval/Processed/Not. vera. byget: Koskda	ES-L3000-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Koskda	2.a Liet: 2 Lietli: 37
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 BOMAR, s.r.o. Třešněv 1236/1 CZ 627 00, Brno	Stručná mechanická schéma: INDIVIDUAL 520.360 GANC LS	Název stránky / Name page / Name seiten: Obsah / Content / Inhalt	Verze / Version / Version: Napájení / Power supply / Stromversorgung: Datum / Date / Datum: Zpracoval / Prepared by / Bearb. v.:	ES-L3000-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Kozla	Let: 2.a Lich:	37
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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
-A5.1	Modul digitálních vstupů Digital input module Digitales Eingangsmodul	X20D09371	B&R	91.995.212	1	/23.0
-A5.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/23.0
-A5.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/23.0
-A7.1	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul	X20D08332	B&R	91.995.213	1	/24.0
-A7.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/24.0
-A7.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/24.0
-A7.2	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul	X20D08332	B&R	91.995.213	1	/25.0
-A7.2	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/25.0
-A7.2	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/25.0
-A8.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/28.3
-A8.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/28.3
-A8.1	Sběrníkový vysílač X2X link Bus transmitter X2X link Bus Sender X2X Link	X20ET9100	B&R	91.995.713	1	/28.3

The manufacturer reserves right to use an equivalent replacement device.

2.a	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stručný popis / Machine: INDIVIDUAL 520.360 GANC LS	Název souboru / Name and file name: Kusovník artiklů / Parts list / Artikelstückliste	Verze / Version: Napájení / Power supply / Powering: Datum / Date / Datum: Zpracoval / Prepared by / Verarbeitet: Kontrola	ES-LS900-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Kosla	3.a	Let: 3 37
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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
-BM1	Bezpečnostní relé 24VDC, 3NO Safety relay 24VDC, 3NO Sicherheitsrelais 24VDC, 3NO	BT50	ABB	91.051.063	1	/14.6
-FA1.1	Motorový spouštěč - 1A Motor starter - 1A Motorstarter - 1A	MS116-4,00	ABB	91.045.019	1	/9.2
-FA1.1	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/9.2
-FA1.2	Motorový spouštěč - 4A Motor starter - 4A Motorstarter - 4A	MS116-4,0	ABB	91.045.022	1	/9.5
-FA1.2	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/9.5
-FA1.3	Motorový spouštěč - 1.6A Motor starter - 1.6A Motorstarter - 1.6A	MS116-1,6	ABB	91.045.020	1	/10.4
-FA1.3	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/10.4
-FM1.1	Frekvenční měnič - 3.7kW, 3x230VAC Frequency converter - 3.7kW, 3x230VAC Frequenzumrichter - 3.7kW, 3x230VAC	VFD037EL23A	DELTA ELECTRONICS, INC.	91.012.096	1	/11.1
-FM2.1	Frekvenční měnič, 1x230 V, 1,5 kW Frequency inverter, 1x230 V, 1,5 kW	816HS200150.00X-1		91.012.154	1	/12.1
-FU1.1	Svorka pojistková Fuse terminal Sicherungs клемме	WK4/TH5SU	WIELAND	91.251.102	1	/13.4
-FU1.1	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/13.4
-FU1.2	Svorka pojistková Fuse terminal Sicherungs клемме	WK4/TH5SU	WIELAND	91.251.102	1	/13.4

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stručná technická specifikace: INDIVIDUÁL 520.360 GANC LS	Název dílů / Name parts / Name teile: Kusovník artiklů / Parts list / Artikelstückliste	Verze / Version / Version: Napájení / Power supply / Stromversorgung: Datum / Date / Datum: Zpracoval / Prepared by / Bearb. von:	ES-LS000-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Kosla	Liet: 3. a Liet: 37

Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Part number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-FUI.2	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	/13.4
-FUI.3	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THS5U	WIELAND	91.251.102	1	/13.4
-FUI.3	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/13.4
-HI.1	Signálka zelená na adaptér Green light for Eaton adapter Grünes Licht für Eaton-Adapter	M22-LED-G	EATON	91.061.023	1	/20.3
-HI.501	Signálka LED bílá na adaptér White LED light for adapter Weißes LED-Licht für Adapter	M22-LED-W	EATON	91.061.034	1	/14.6
-IRCI.1	Lineární inkrementální snímač - 10-30VDC/10-30VDC Linear Encoder - 10-30VDC / 10-30VDC Linear-Encoder - 10-30VDC / 10-30VDC	LMIX2-026-08.0-1-100-L	ELGO	92.270.018	1	/19.5
-KL	Převodník maticové klávesnice na RS232 Matrix keyboard converter to RS232 Matrix-Tastatur-Konverter auf RS232	HT4666-232	ASTP s.r.o.	91.995.101	1	/27.2
-KL	Klávesnice fólová Foil keyboard Folientastatur	31.ER2530-303	AKI ELECTRONIC spol.s.r.o.	31.ER2530-303	1	/27.2
-KM1.1	Minisvkač - 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
-KM1.2A	Svkač - 4kW/400V, 3P Contactor - 4kW/400V, 3P Schütz - 4 kW / 400V, 3P	AF09-30-01-11	ABB	91.040.047	1	/21.2
-KM1.2B	Svkač - 4kW/400V, 3P Contactor - 4kW/400V, 3P Schütz - 4 kW / 400V, 3P	AF09-30-01-11	ABB	91.040.047	1	/21.3
-KM1.2B	Mechanické blokování Mechanical interlock unit Mechanische Interlockeinheit	VM4	ABB	91.041.045	1	/21.3

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	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-KM1.2B	Pomocný kontakt - 1xNO Auxiliary contact - 1xNO Hilfskontakt - 1xNO	CA4-10	ABB	91.041.044	2	/21.3
-KM1.3	Ministrykač - 4kW/400V, 3P Mini contactor - 4kW/400V, 3P Mini-Schütz - 4kW/400V, 3P	86S-30-10-1.7-71	ABB	91.040.048	1	/24.6
-KM11	Stykač - 7.5kW/400V, 3P Contactor - 7.5kW/400V, 3P Schütz - 7.5 kW / 400V, 3P	AF16-30-10-11	ABB	91.040.056	1	/14.7
-KM11	Pomocný kontakt - 1xNC Auxiliary contact - 1xNC Hilfskontakt - 1 xNC	CA4-01	ABB	91.041.043	1	/14.7
-KM12	Stykač - 7.5kW/400V, 3P Contactor - 7.5kW/400V, 3P Schütz - 7.5 kW / 400V, 3P	AF16-30-10-11	ABB	91.040.056	1	/14.8
-KM12	Pomocný kontakt - 1xNC Auxiliary contact - 1xNC Hilfskontakt - 1 xNC	CA4-01	ABB	91.041.043	1	/14.8
-LQ2.1A	Laserová závara - vysílač Laser barrier - transmitter Laserschranke - Sender	BLS 18KW-XX-1LT-54-L	BALLUFF	91.400.004	1	/23.6
-LQ2.1B	Laserová závara - přijímač Laser barrier - receiver Laserschranke - Empfänger	BLE 18KW-PA-1LT-54-C	BALLUFF	91.400.003	1	/23.5
-M1.6	Ventilátor 24VDC, 154CFM Fan 24VDC, 154CFM Fan 24VDC, 154CFM	RDH1238 B2	Xinnilian Electronic Co.	91.015.126	1	/11.8
-PA1.1	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylindereinsätze - 3P	E93/32	ABB	91.241.014	1	/11.1
-PA1.1	Pojistka válcová - 25A, 10x38, rychlá Tube fuse - 25A, 10x38, fast Rohrsicherung - 25A, 10x38, schnell	PV10 25A gG	OEZ	91.230.021	3	/11.1
-PA1.2	Pojistkový odpojovač E-90 - 2P Fuse disconnecter E-90 - 2P Sicherungstreiner E90 - 2P	E 92/32	ABB	91.241.013	1	/13.1

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Nameplate: INDIVIDUAL 520.360 GANC LS	Název detailu/Name part/Name section: Kusovník artiklů / Parts list / Artikelstückliste	Verze /Version/Version:	ES-13000-203-V7.1	Liet:		
			Typ/Power supply/Power supply:	3x230V + PE / 50Hz			
			Datum/Date/Datum:	5.6.2017			
			Zpracoval/Processed/Not. vera. by:				Kozla
							Kozla
						37	

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	Pojistka válcová - 4A, 10x38 Tube fuse - 4A, 10x38, fast	PV10 4A gG	OEZ	91.231.011	2	/13.1
-PA2.1	Pojistkový odpjovač E-90 - 2P Fuse disconnecter E-90 - 2P Sicherungstrener E90 - 2P	E 92/32	ABB	91.241.013	1	/12.1
-PA2.1	Pojistka válcová - 20A, 10x38, rychlá Tube fuse - 20A, 10x38, fast Rohrsicherung - 20A, 10x38, schnell	PV10 20A gG	OEZ	91.230.038	2	/12.1
-QSL1	Rukojeť odpináče 48x48mm - černá Handle switch 48x48mm - black Griffschalter 48x48mm - Schwarz	OHBS3PH	ABB	91.180.018	1	/8.1
-QSL1	Kryt svorek Terminal shroud Klemmenabdeckung	OTS40T3	ABB	91.170.017	1	/8.1
-QSL1.1	3 pólový odpináč, 40A Disconnecter - 3P, 40A Trennschalter - 3P, 40A	OT40FT3	ABB	91.170.019	1	/8.1
-R2.1	Brzdový odpor 150Ω Braking resistor 150Ω Bremswiderstand 150Ω	BR200W150	DELTA ELECTRONICS, INC.	91.012.120	1	/12.2
-RCF0	Odrašňovač filtr 32A Noise filter 32A Rauschfilter 32A	32EB15/50/C2	WIDECOM TECHNOLOGY s.r.o.	91.041.066	1	/8.2
-RCF1.1	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/9.1
-RCF1.2A	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/9.5
-RCF1.2B	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/9.7
-RCF1.3	Filtr RFC vývodový Effluent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/10.3

The manufacturer reserves right to use an equivalent replacement device.

3.c	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: INDIVIDUAL 520.360 GANC LS	Název dílův/Name parts/Name teile: Kusovník artiklů / Parts list / Artikelstückliste	Verz./Version/Version: Ingredient/power supply/Ernennung: Datum/Date/Datum: Zpracoval/Processed/Her. verva. hergestellt: Koskda	ES-13000-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Koskda	Lie: 3.4d Lieh: 37
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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
-RCF11	Filtr RFC vývodový Efficient RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/8.5
-RCF12	Filtr RFC vývodový Efficient RFC filter Ableitenden RFC Filter	FBOPRL624	Ing. Miroslav Vlček	91.041.015	1	/8.7
-RP1	Potenciometr 4K7 Potentiometer 4K7 Potentiometer 4K7	TP195 4K7/N20A	Elektronické součástky CZ, a.s	91.283.015	1	/11.5
-RP1	Svorka rychloupínací Fastconnect clamp Fast Connect Klemm	WAGO 224-112	WAGO	91.250.009	3	/11.5
-RP1	Hlavice potenciometru - 24mm Head of potentiometer 24mm Leiter Potentiometer 24mm	S8877 BLK	GES-ELECTRONICS, a.s.	91.060.063	1	/11.5
-SA1.1	Hlavice 3 polohového přepínače, klíček Head of 3 positional key switch Leiter der 3-Position Schlüsselschalter	M22-WRS3	EATON	91.060.058	1	/18.3
-SA1.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/18.3
-SA1.1	Kontaktní blok - 1NO Contact block - 1NO Kontaktblock - 1NO	M22-K10	EATON	91.061.022	1	/18.3
-SB1.1	Hlavice dvoutlačítka bílá/černá start/stop Double button head white/black start/stop Doppelrundkopf weiß/schwarz Start/Stop	M22-DDL-W5-GB1/GB0	EATON	91.060.034	1	/18.1
-SB1.1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/18.1
-SB1.2	Kontaktní blok - 1NC Contact block - 1NC Kontaktblock - 1NC	M22-K01	EATON	91.061.024	1	/18.2
SB500	Total stop - Hlavice + 3xNC Emergency-stop mushroom push-button + 3xNC Not-Aus-Pile - Taste + 3 xNC	YW1B-V4E02R	IDEC	91.060.084	1	/14.4

The manufacturer reserves right to use an equivalent replacement device.

3.d	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stručná technická specifikace: INDIVIDUAL 520.360 GANC LS	Název dílů / Name parts / Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Verze / Version / Version: Napájení / Power supply / Stromversorgung: Datum / Date / Datum: Zpracoval / Processed by / Bearb. von:	ES-LS000-203-V7.1 3x230V + PE / 50Hz 5.6.2017 Kosla	3.f
				Liet:	3.e	
				Liet:	3.f	37

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
-SB500	Kontakt - 1x NO Contact - 1x NO Kontakt - 1x NO	YW-E10	IDEC	91.061.044	1	/14.4
-SB510	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/14.7
-SB510	Hlavice prosvětleného tlačítka žlutá Yellow transparent switch Leiter beleuchtet gelbe Taste	M22-DL-Y	EATON	91.060.053	1	/14.7
-SQ1.1	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/20.5
-SQ1.5	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/20.6
-SQ2.1	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.1
-SQ2.2	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.1
-SQ2.3	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.2
-SQ2.4	Indukční snímač - Sn=1,5mm Inductive sensors - Sn = 1.5 mm Induktive Sensoren - Sn = 1,5 mm	JPS 30D 081.5 PNOFC	BALLUFF	91.172.009	1	/23.3
-SQ2.5	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/23.4
-SQ10	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsenschalter - 2x NC	QKS8	KEDU	91.173.012	1	/14.4
-SQ11	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsenschalter - 2x NC	QKS8	KEDU	91.173.012	1	/14.2

The manufacturer reserves right to use an equivalent replacement device.

3.e		Stroj/Machine/Maschine: INDIVIDUAL 520.360 GANC LS		Název dílce/Name part/Name section: Kusovník artiklů / Parts list / Artikelstückliste		Verz./Version/Version: ES-13000-203-V7.1		3.g	
BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno						Vydání/Printed/Druckung: 3.6.2017		Lib: 3.f	
						Datum/Date/Datum:		Lib: 37	
						Zpracoval/Processed/Has. v.era. listet:		Lib: 37	
						Koska		37	

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
-T30	CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7"	T3057CP1382	B&R	91.995.253	1	/27.5
-ZD1	Nápadec zdroj - 230VAC/24VDC, 10A Power supply - 230V AC/24V DC, 10A	CP-E 24/10A	ABB	91.085.028	1	/13.2

The manufacturer reserves right to use an equivalent replacement device.

3.f	 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: INDIVIDUAL 520.360 GANC LS	Název dílů/Name parts/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Verz./Version/Version: ES-L300D-233-V7.1 Výrobce/Power supply/Erzeugnis: 3x230V + PE / 50Hz Datum/Date/Datum: 5.6.2017 Zpracoval/Processed/Has veran:loset:	Liet: 3.g Liet: 37	4
-----	---	--	--	---	--	---

Plán konektoru Connector plan Stecker Zeitplan

Konektor Connector Stecker	Cíl konektoru Connector target Stecker Ziel	Kontakt Contact Kontakt	Cíl zásuvek Outlet target Outlet-Ziel	Stránka / sloupec Page / Column Seite / Spalte
= +-X2				
	+R2-XC5:85	1	+R1-XC5:85	/12.4
	+R2-XC2:200	2	-FU1.3	/13.6
	+R2-XC1:100	3	-ZD1	/13.6
	+R2-XC4:229	4	+R1-XC4:229	/23.1
	+R2-XC4:230	5	+R1-XC4:230	/23.1
	+R2-XC4:231	6	+R1-XC4:231	/23.2
	+R2-XC4:232	7	+R1-XC4:232	/23.3
	+R2-XC4:233	8	+R1-XC4:233	/23.4
	+R2-XC4:234	9	+R1-XC4:234	/23.4
	+R2-XC4:235	10	+R1-XC4:235	/23.5
	+R2-XC4:236	11	+R1-XC4:236	/23.6

3.g



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

Stroj/Machine/Machine:

INDIVIDUAL 520.360 GANC LS

Název dílsky/Name part/Name part:

Plán konektoru -X2 / Connector plan -X2 / Stecker Zeitplan -X2

Verze/Version/Version:

ES-L3000-233-V7.1

Lib:

4

Vydání/Power supply/Emplacement:

3x230V + PE / 50Hz

Lib:

37

Datum/Date/Date:

5.6.2017

Lib:

37

Zpracoval/Processed/Has been processed:

Kozla

Plán konektoru Connector plan Stecker Zeitplan

Konektor Connector Stecker	Cíl konektoru Connector target Stecker Ziel	Kontakt Contact Kontakt	Cíl zásuvek Outlet target Outlet-Ziel	Stránka / sloupec Page / Column Seite / Spalte
= +-X3				

+R2-XC5:319	1	+R1-XC5:319	/25.2
+R2-XC5:320	2	+R1-XC5:320	/25.3
+R2-XC5:321	3	+R1-XC5:321	/25.3
+R2-XC5:322	4	+R1-XC5:322	/25.4
+R2-XC5:323	5	+R1-XC5:323	/25.5



Nížež stránky/název page/název sekce:
 Rozmístění prvků v rozvaděči R1, R2/ Placement of elements in enclosure R1, R2/ Platzierung der Elemente im Schaltschrank R1, R2

Indirizzo/Macchine/Macchine:
INDIVIDUAL 520.360 GANC LS

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



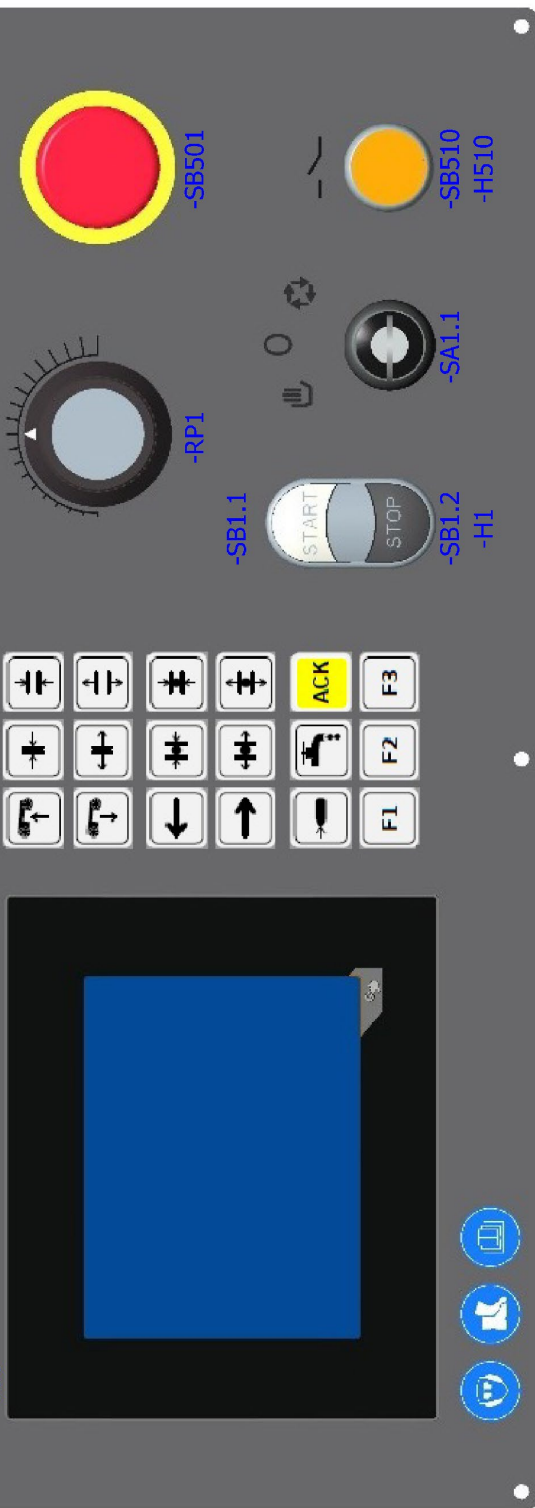
5

7

+OP1

Bomar

-T30



6

8

 BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Brno	Shop/Machine/Version: INDIVIDUAL 520.360 GANC LS	Název obvodu/řádku panelu/verze: Ovládací panel / Control panel / Schalttafel	Verze/Verion/Version: FS-13000-233-V7.1 Napájení/Power supply/Ernährung: 24VDC + PE / 24VDC Datum/Date/Datum: 5.6.2017 Zpracovatel/Processor/Hersteller: Koska	Lib:
				7
				37

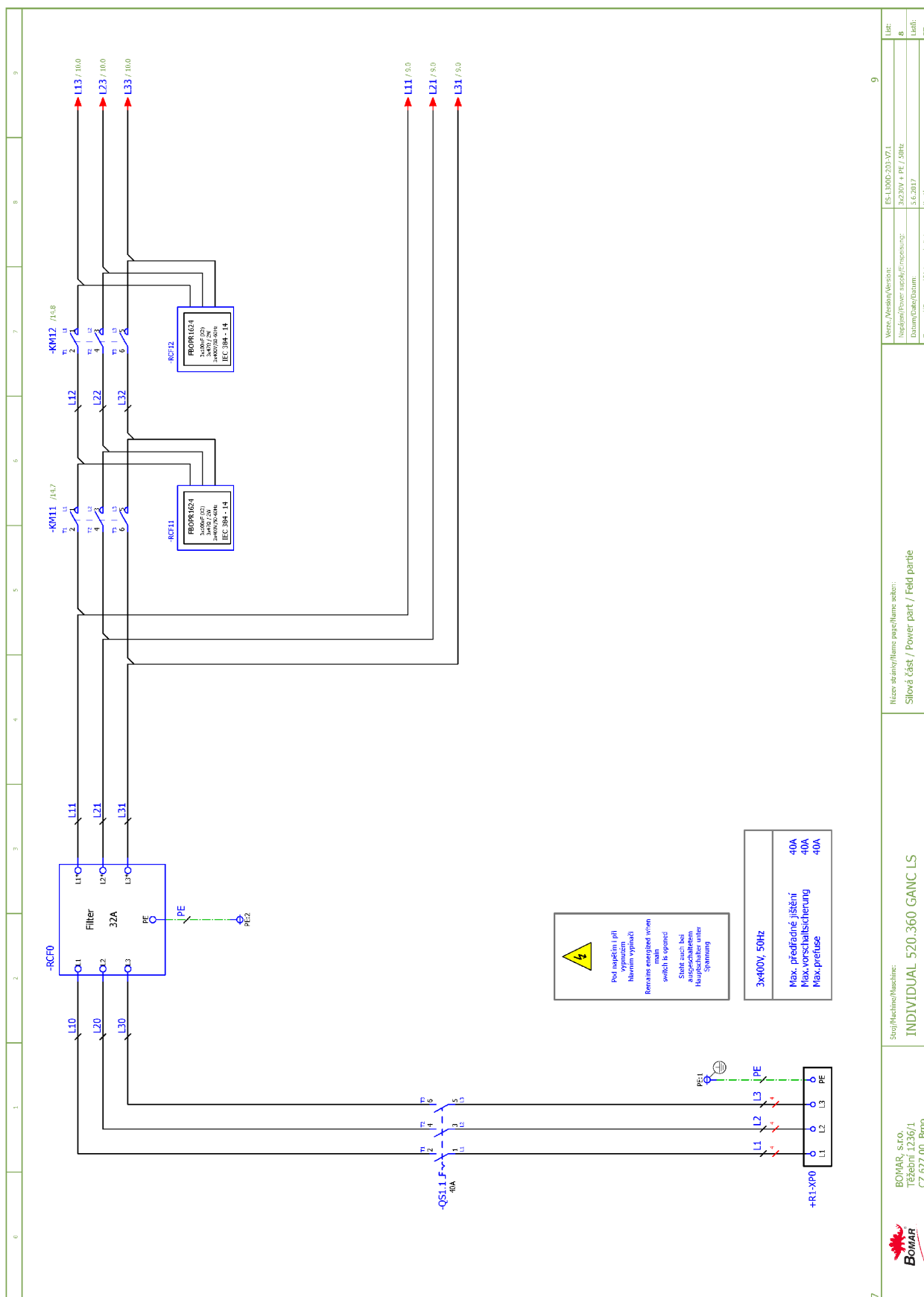
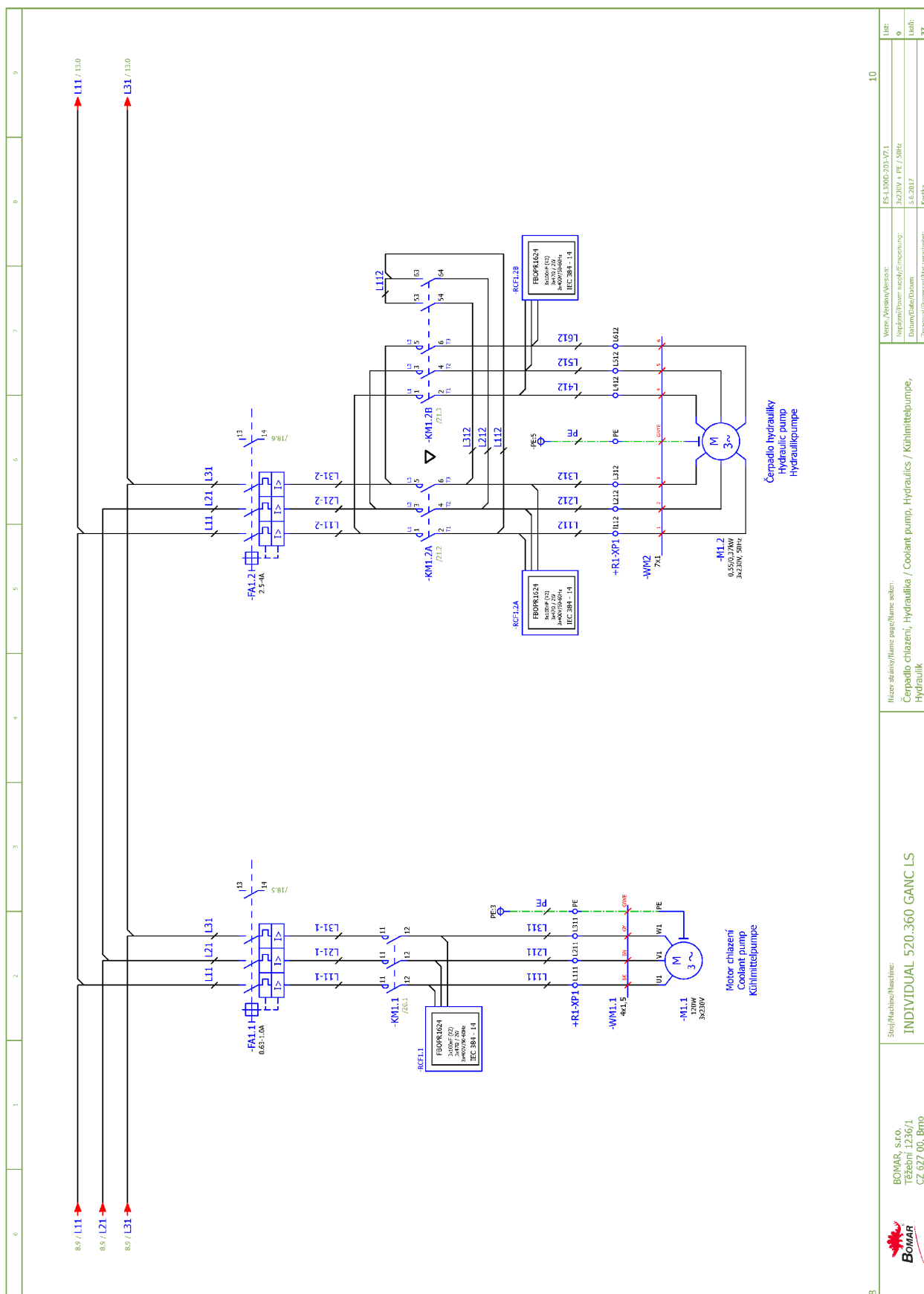
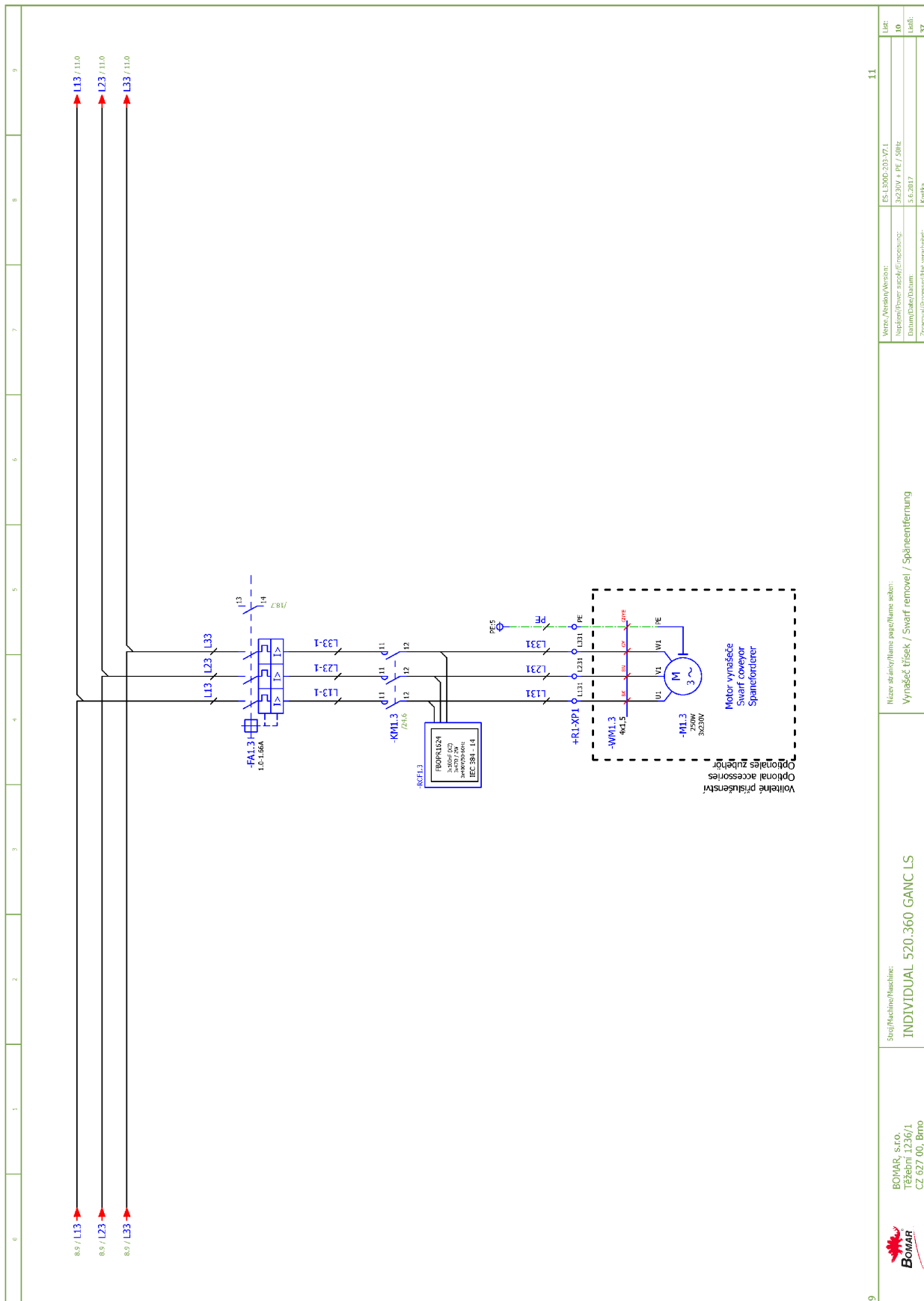


Schéma
Schemas
Schematics





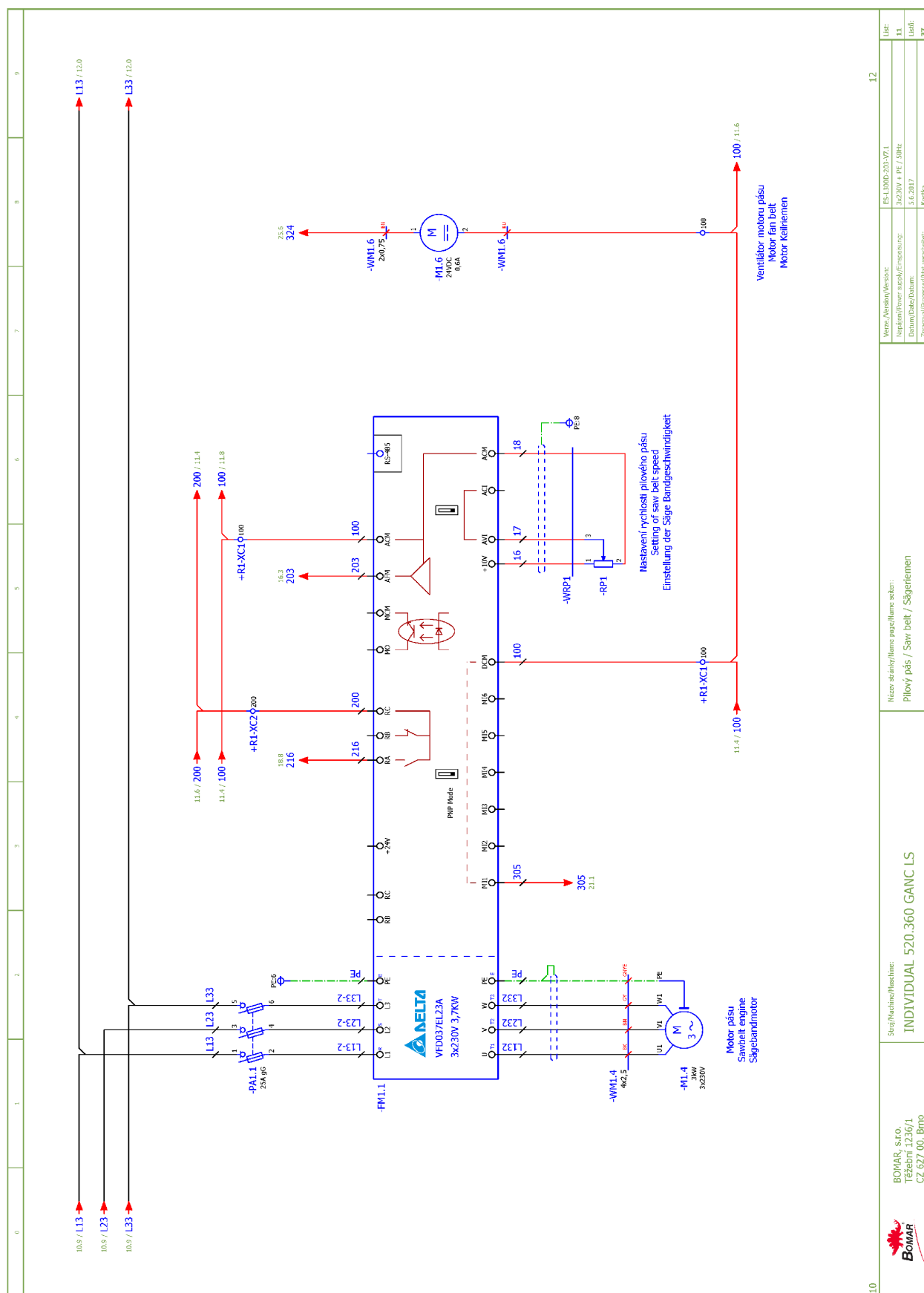
BOMAR, s.r.o.
Třeborní 1236/1
CZ 627 00, Brno

Stop/Machine/Reachine:

INDIVIDUAL 520.360 GANC LS

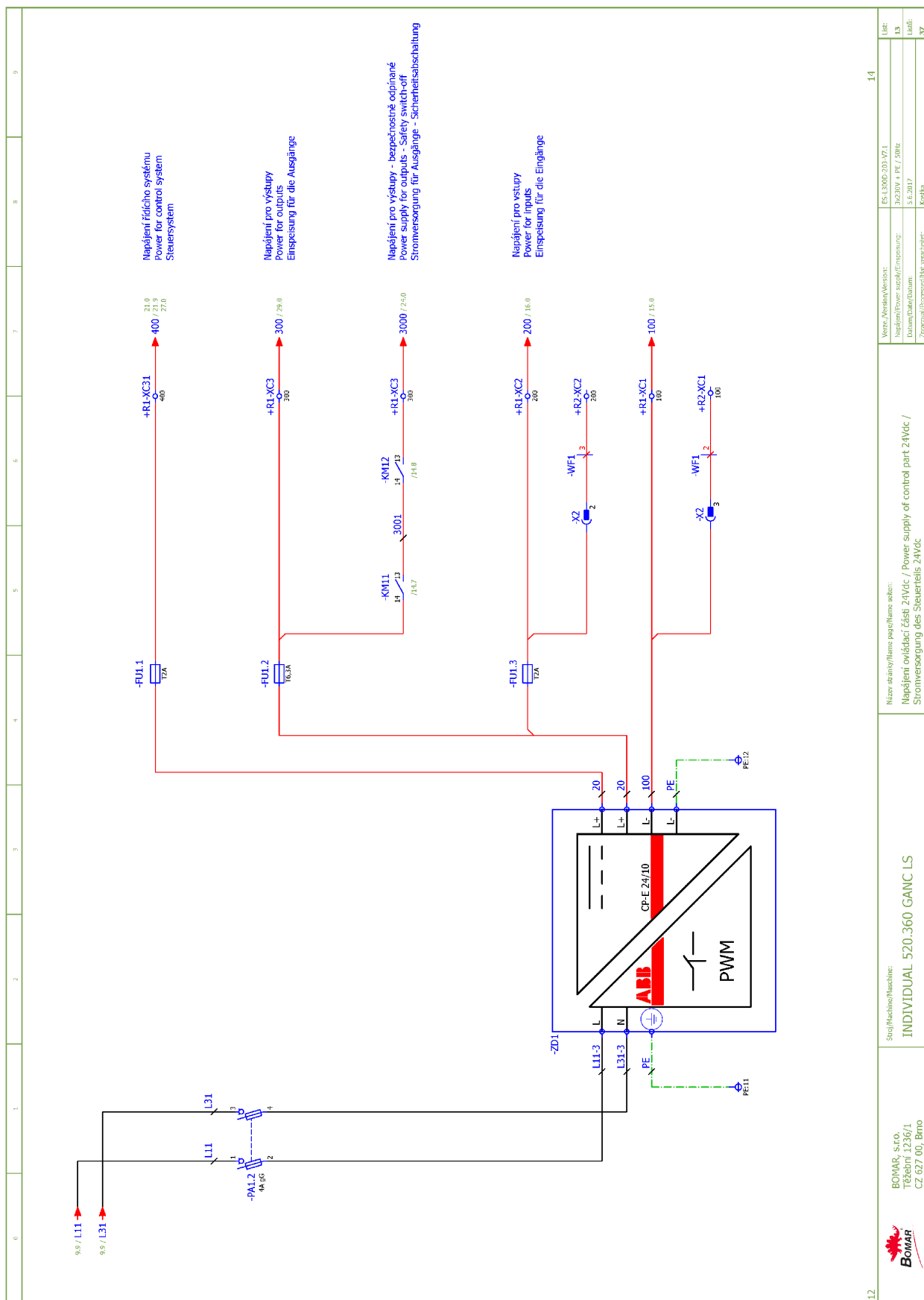
Remove the drive/Remove the drive/Remove the drive:

Vynášet tlisk / Swift remove / Späntentfernung

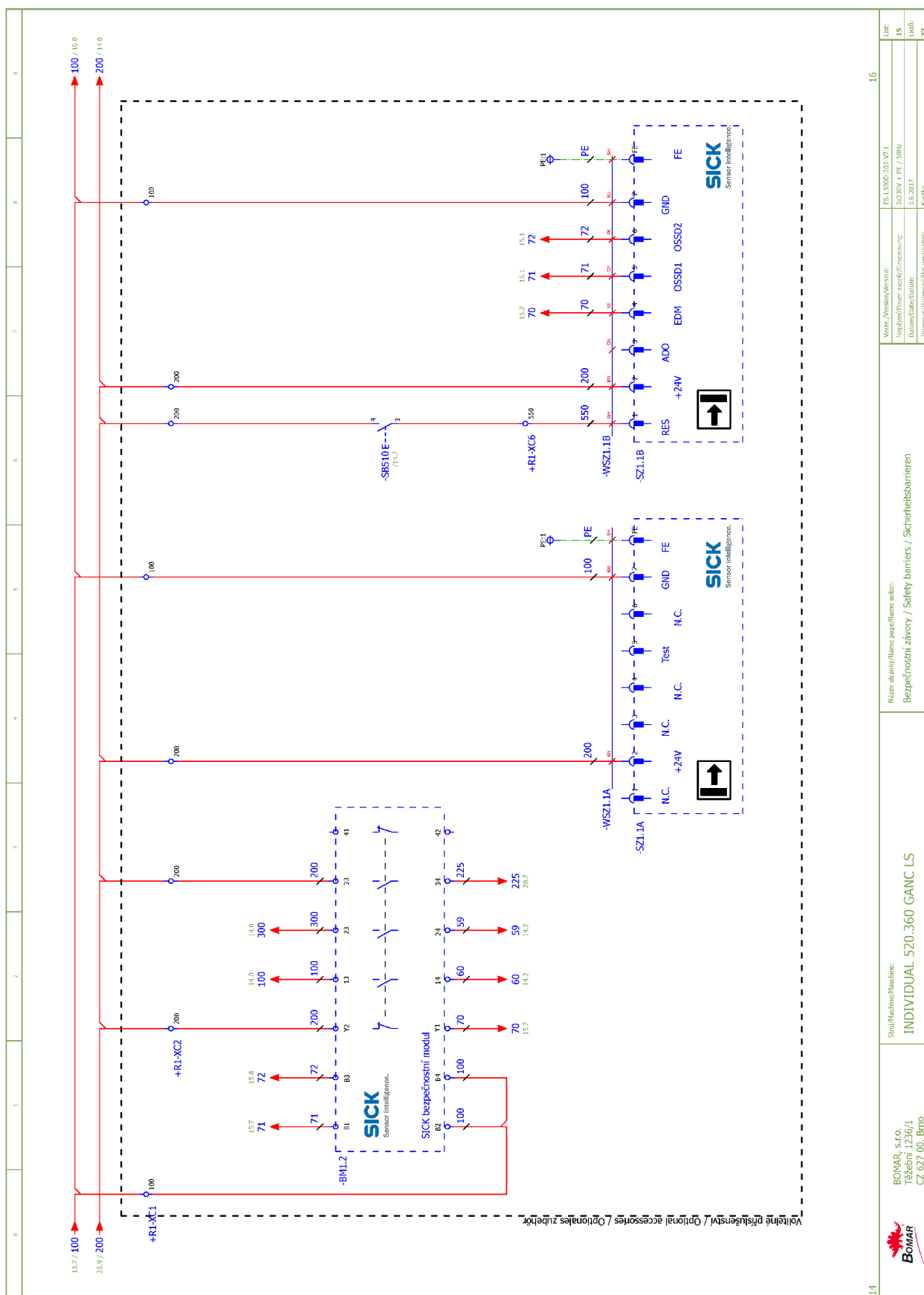




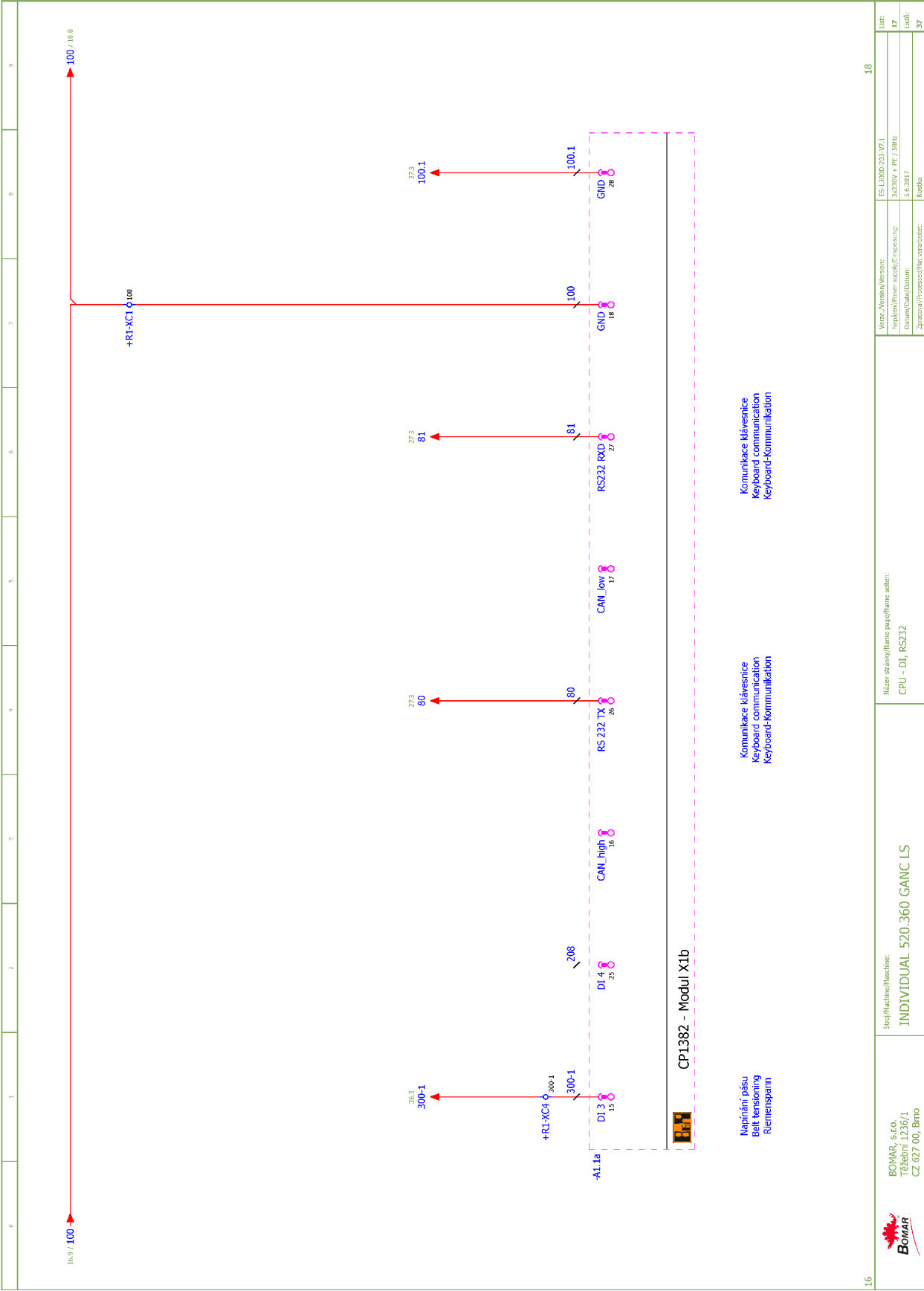
11		BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine: INDIVIDUAL 520.360 GANC LS	Název zařízení/Name part/mains set: podavač / Feeder / Zubringer	Verze/Version: 3x2039 + PE / 50Hz Datum/patentum 5.5.2017 Ročník	13
					Est./L300-203-V7-1	12
					Podání/Power supply/Emphasis:	12
					Ročník	12
					Ročník	12



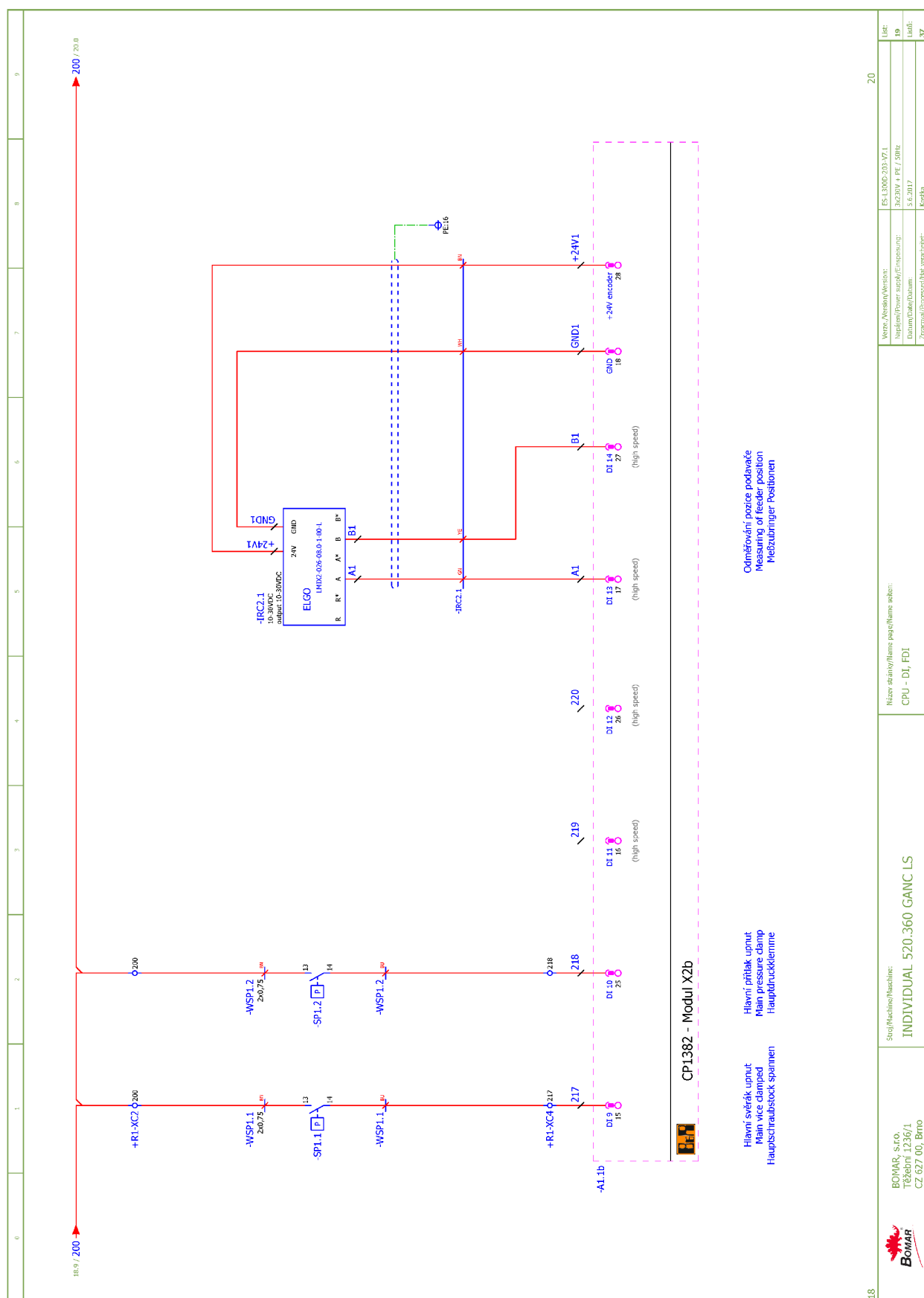




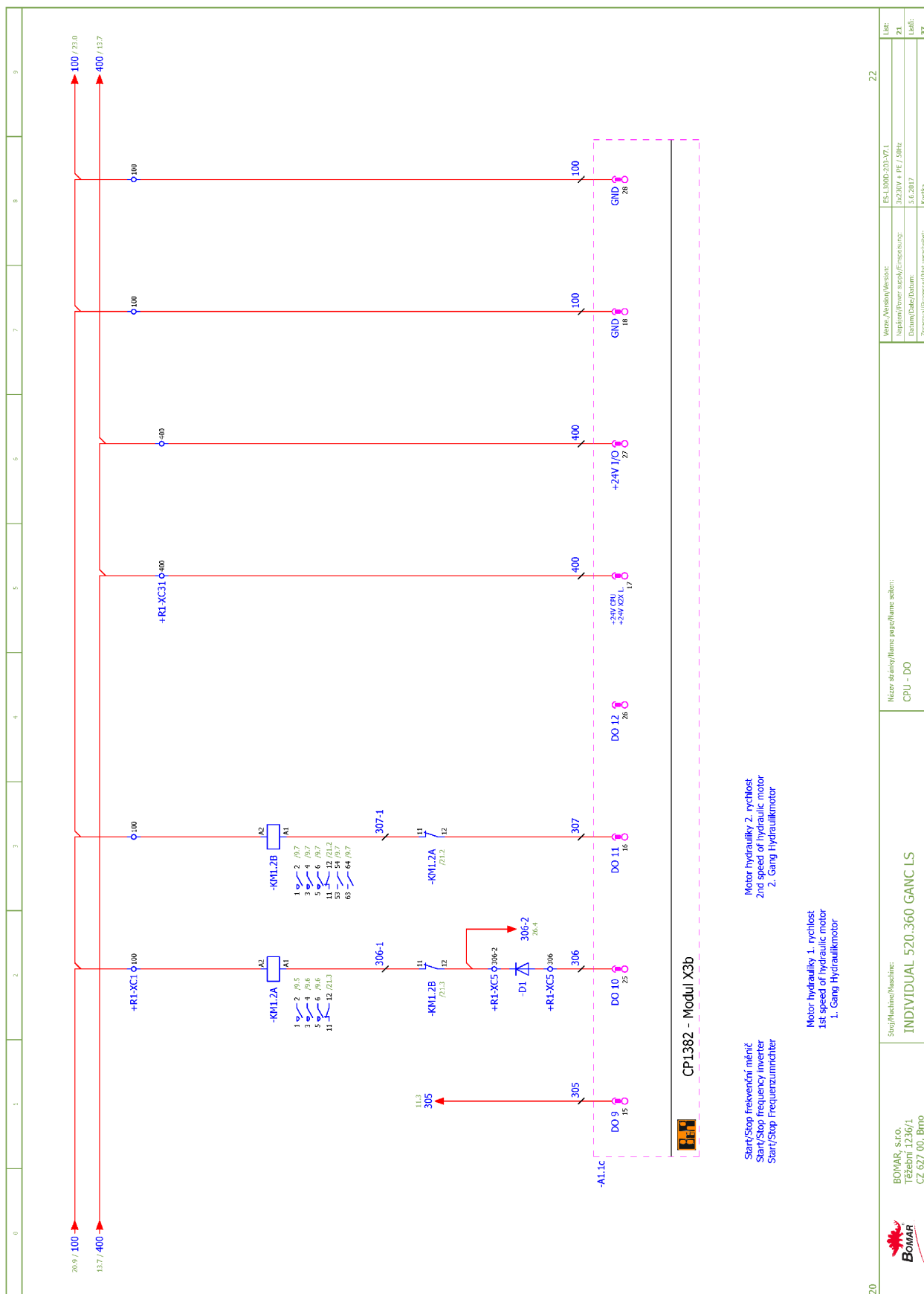






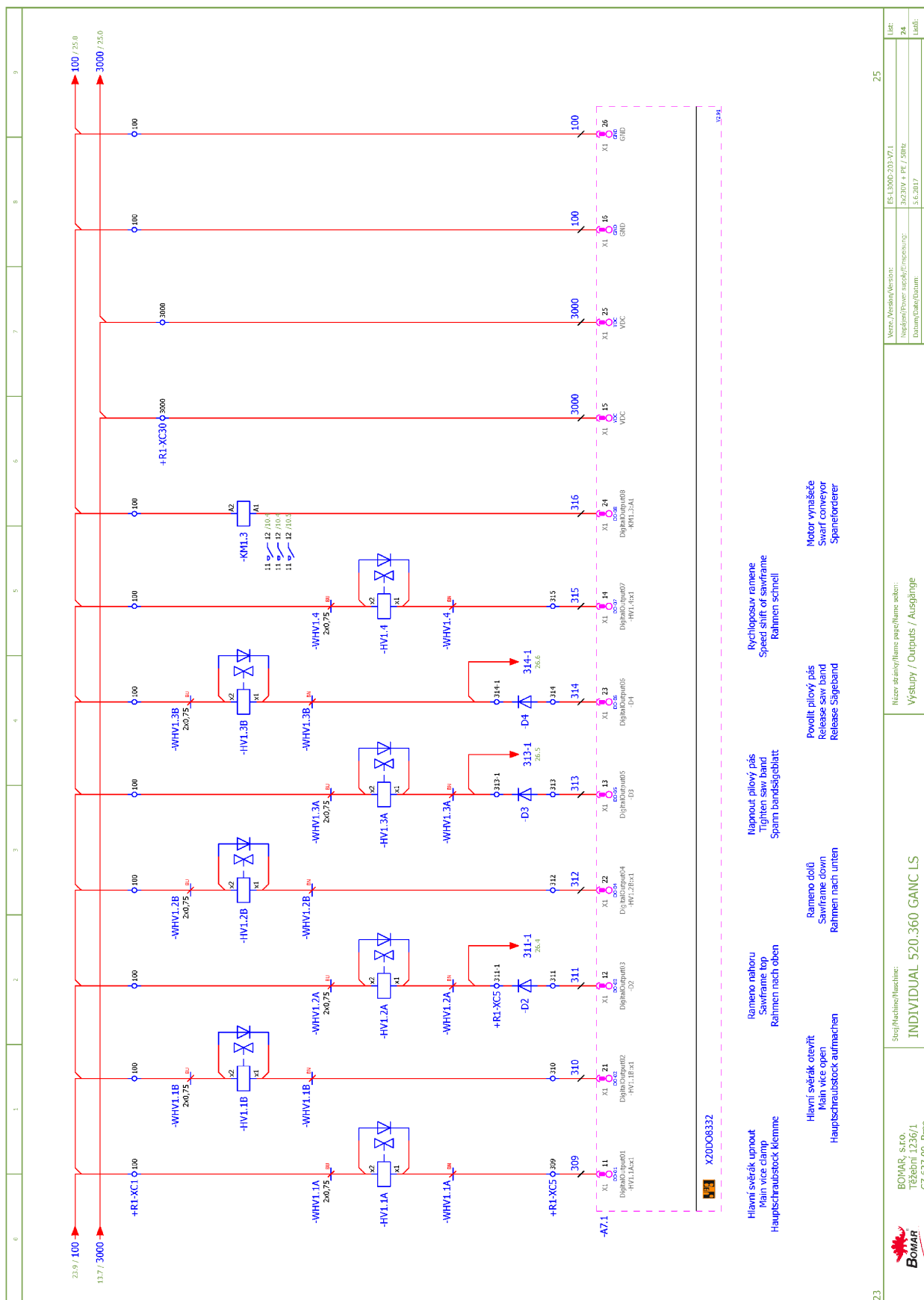










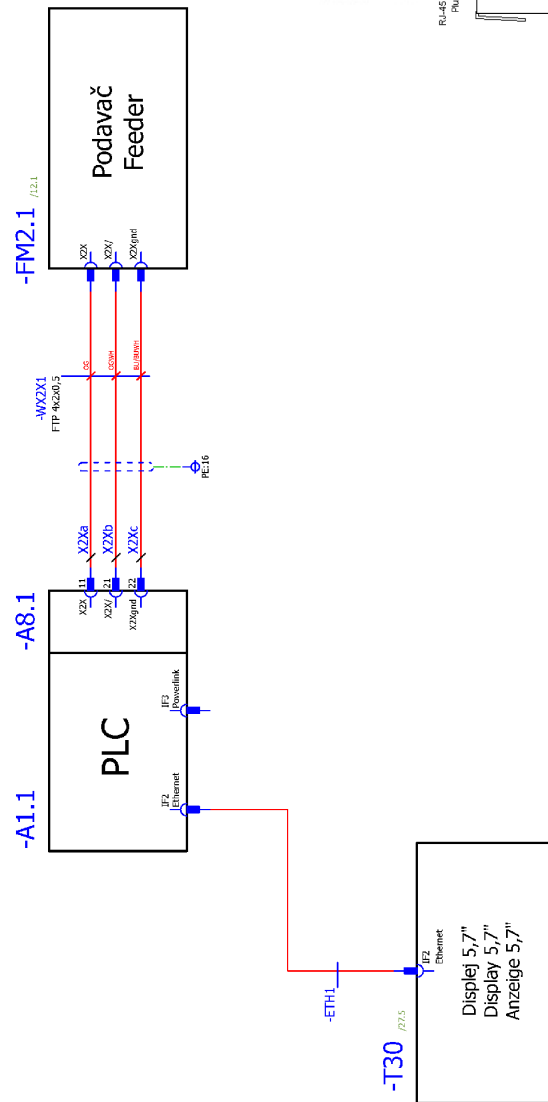




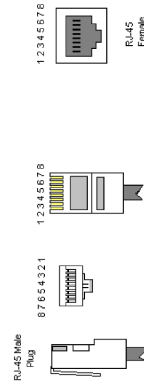




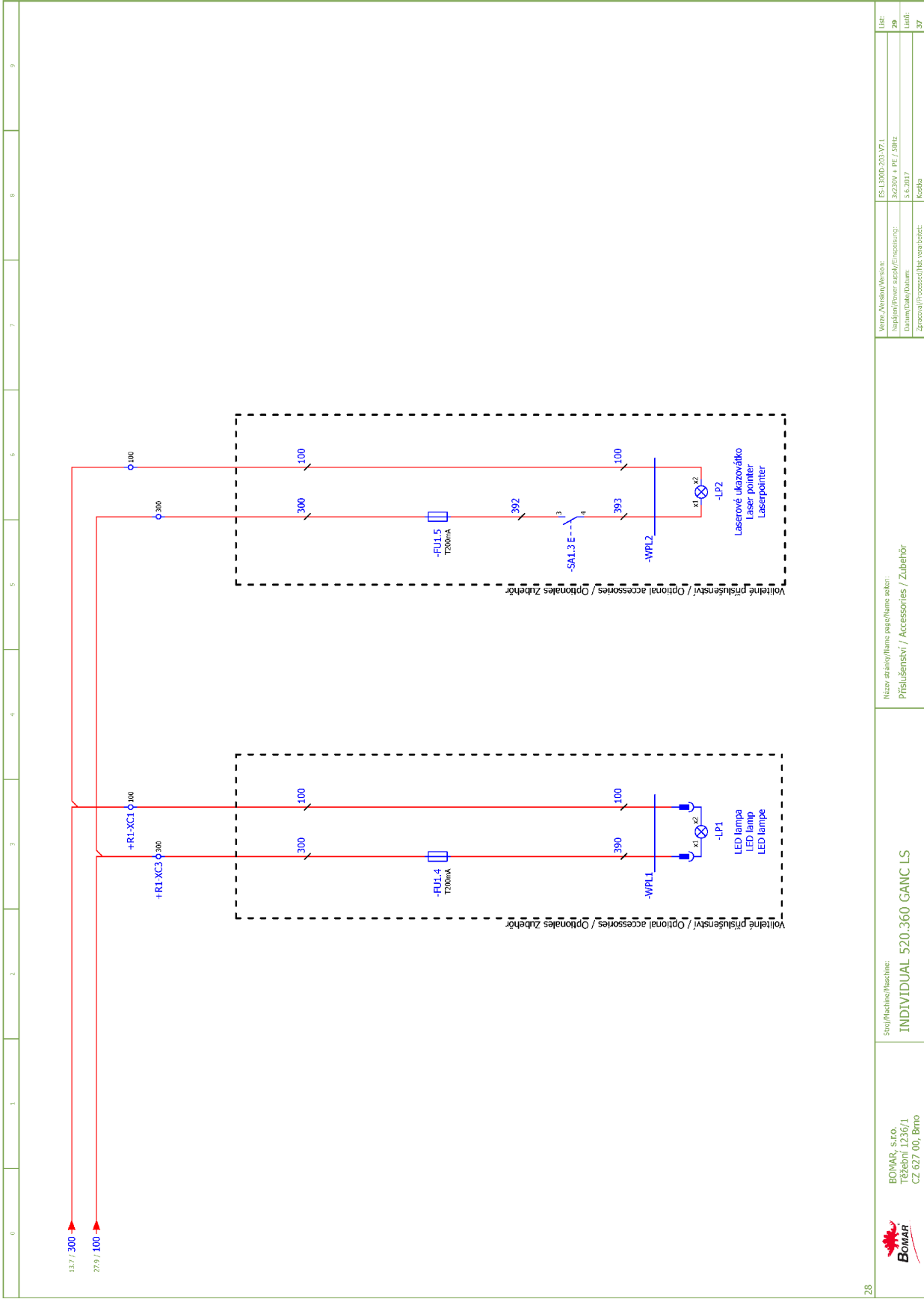
Toloplogy



ETHERNET
POWERLINK



Color	Standard	EN A TIA T568A
Green/White Tracer	1	Orange/White Tracer
Orange/White Tracer	2	Green
Blue/White Tracer	3	Orange
Brown/White Tracer	4	Green/White Tracer
Blue	5	Blue/White Tracer
Orange	6	Brown
Brown	7	Orange
Blue/White Tracer	8	Blue



Schémata
Schemas
Schematics

Poz.	Název položky		ks
Pos.	Bezeichnung		Menge
Pos.	Item		Pcs.
1	Nádrž / Behälter / Tank	TM13,5/S cca 20 dm ³	1
2	Elektromotor / Elektromotor / Electromotor	0,48/0,6 kW/ 50 Hz, 2-/4pólový	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	10A2,5x053G 2,5 cm ³ /rmp	1
4	Zpětný filtr/ Gegendruckventil / Clack-valve	MPF0301AG1	1
5	Nalévací zátka / Stopfen / Fill stoper	CPT-MD-FA/1"	1
6	Přepouštěcí ventil / Bypassventil / By pass valve	MO-020/32	1
7	Jednosměrný ventil / Einwegventil / One-way valve	CV08-20-0-N-4 V205-007-1-01	1
8	Rozváděč / Schaltschrank / Switchboard	DVE03-S01-B4- C24/20/T1-M1	2/1
9	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	PC08-30-0-N	1
10	Rozváděč / Schaltschrank / Switchboard	DVE03-S12-B4- C24/20/T1-M1	1
11	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	DC08-40-0-N-25	1
12	Rozváděč / Schaltschrank / Switchboard	DVE03-S04-Bx- C24/20/T1-M1	3/2
13	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	PC08-30-0-N	1
14	Sedlový ventil /	SV08-20-0-N-24EG	1
15	Tlakový spínač/ Druckschalter / Pressure switch	0166415031059 20-50 Bar	4
16	Škrťací ventil / Drosselventil / Throttle-valve	VS01-04/R2,5-OS 92.152.001	2
17	Kostka regulace / Regulationklotz / Regulation cube	On the saw band	2/1
18	Pojistný ventil / Sicherungventil / Safety valve	VPNH 1/4" 92.151.001	1
19	Redukční ventil / Reduktionsventil / Control valve	VRN1-06/RV-6,3 92.154.001	2/1/0
20	Manometr / Manometer / Manometer	D68, RAD., 0-60 Bar	2/1/0
21	Redukční ventil / Reduktionsventil / Control valve	PR08-32A-0-N-6	2/0
22	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	DC08-40-0-N-25	1/0
23	Jednosměrný ventil / Einwegventil / One-way valve	RS05-10/0,3	1/0
24	Krycí deska / Cover plate	PD 1 – RPEK N809_022_1	1/0
25	Tryska / Düse / Nozzle		1/0
26	Rozváděč / Schaltschrank / Switchboard	PVE03-S01-B2- C24/20/T1-M1	1
27	Rozváděč / Schaltschrank / Switchboard	DVE03-S01-B1- C24/20/T1-M1	1
28	Rozváděč / Schaltschrank / Switchboard	DVE03-S12-B5- C24/20/T1-M1	1

29	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	PC08-30-0-N	1
30	Kulový ventil / Kugelventil / Globe valve		1

Attention!

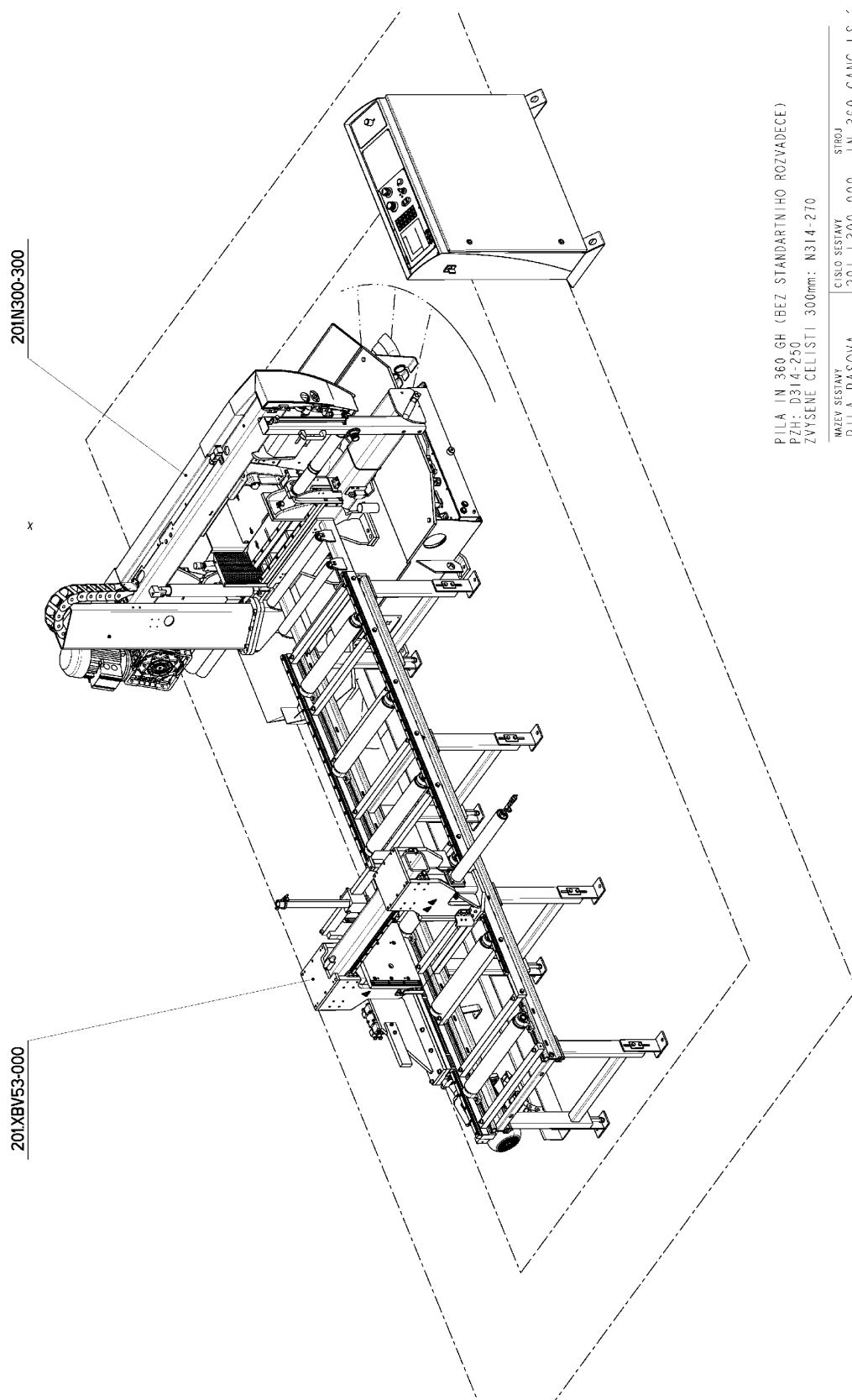
The saw arm must always be in the down position after finishing work and resting or during longer intervals between cuts or at night. Otherwise there is a risk of damage to the hydraulic part of the saw arm.

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

7. **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. practix Individual 520.360 GANC LS 2300) , výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Individual 520.360 GANC LS 2300), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).
- For spare parts order, you must always to allege: type of machine (for example Individual 520.360 GANC LS 2300), serial number (for example 125, see cover page) and year of construction (for example 1999).

7.1. Individual 520.360 GANC LS 2300

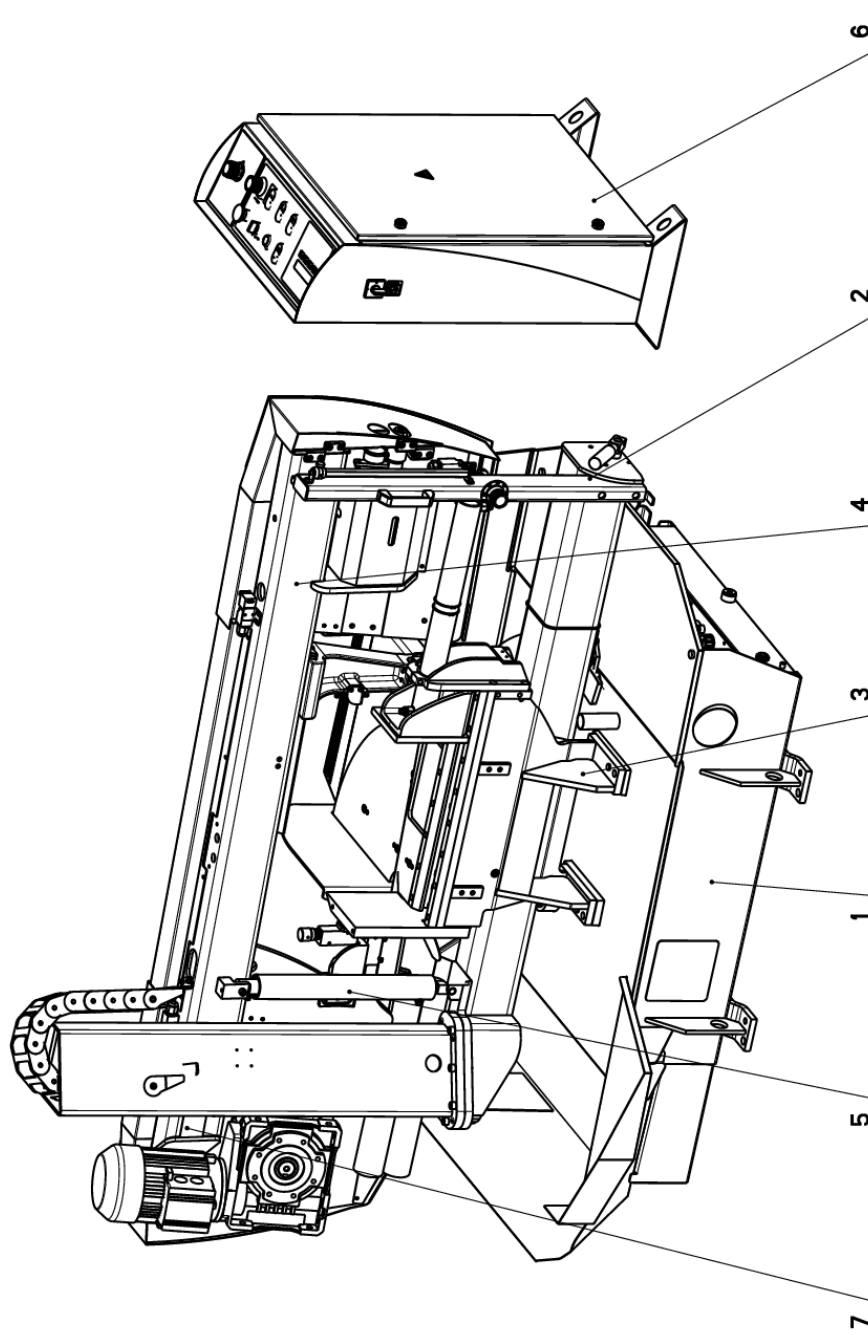


PILA IN 360 GH (BEZ STANDARDNIHO ROZVADECE)
 PZH: 0314-250
 ZVIŠENE CELISTI 300mm: N314-270

NAZEV SESTAVY	ČÍSLO SESTAVY	STROJ
PILA PASOVA	201.L300-000	IN 360 GANC LS 2
Konstruoval:		
Datum: 18. 08. 2014		
Meritko: 3:50		



7.2. Pila pásová/ Band saw/ Bandsäge



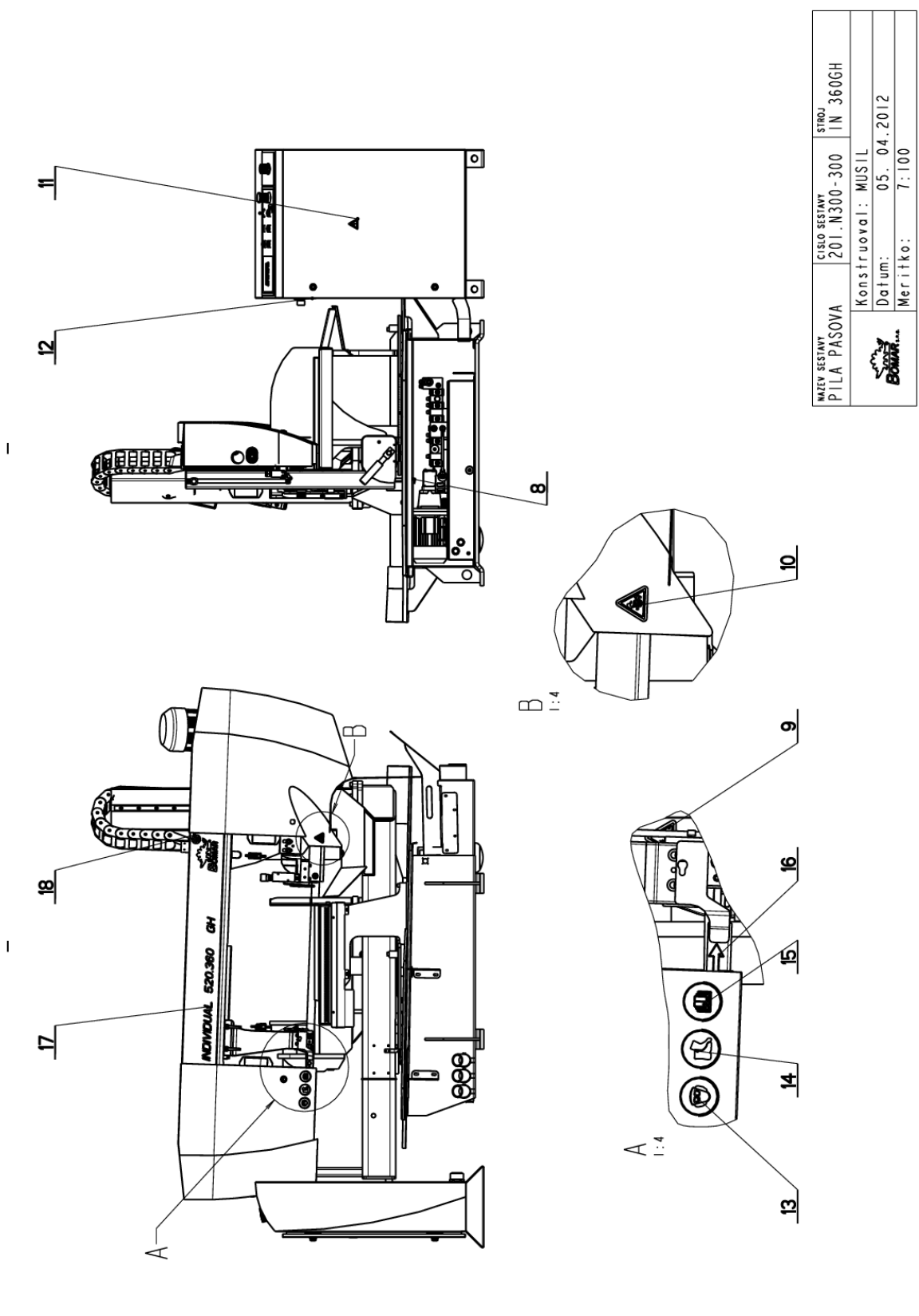
NAZEV SESTAVY PILA PÁSOVÁ	CÍSLO SESTAVY 201.N300-300	STROJ IN 360GH
Konstruoval: MUSIL		
Datum: 05. 04.2012		
Meritko: 1:10		

201.N317-200 ATL
201.Y317-300 ATR
201.D314-250 PZH

7.3. Kusovník / Piece list / Stückliste -
Pila pásová/ Band saw/ Bandsäge

Číslo Sestavy 201.N300-300		Ver. 0	Název sestavy PILA PASOVA/BAND SAW/BANDSÄGE		
Poz.	Objednací číslo	Ver.	Název položky	Rezmer	Ks
1	201.N301-300	0	PODSTAVEC / BASE / UNTERSATZ		1
2	201.N302-200	0	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE		1
3	201.N303-200	0	SVERAK / VICE / SCHRAUBSTOCK		1
4	201.Y304-100	5	RAMENO / SHOULDER / SÄGERAHMEN		1
5	201.Y307-010	3	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLLINDER		1
6	201.Y330-100	0	OWLEADACT PANEL / CONTROL PANEL / BEDIENTPULT		1
7	30.N399-001	0	STÍTEK TYPOVÝ / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	
8	31.0899-004	0	SAMOLEPKA / STICKER / AUFKLEBER		1
9	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.ŠTLACENI	1
10	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		1
11	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		1
12	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		1
13	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		1
14	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		1
15	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		1
16	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		1
17	99.901.029	0	SAMOLEPKA / STICKER / AUFKLEBER		1
18	99.901.032	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNI SAMOLEPKA	1

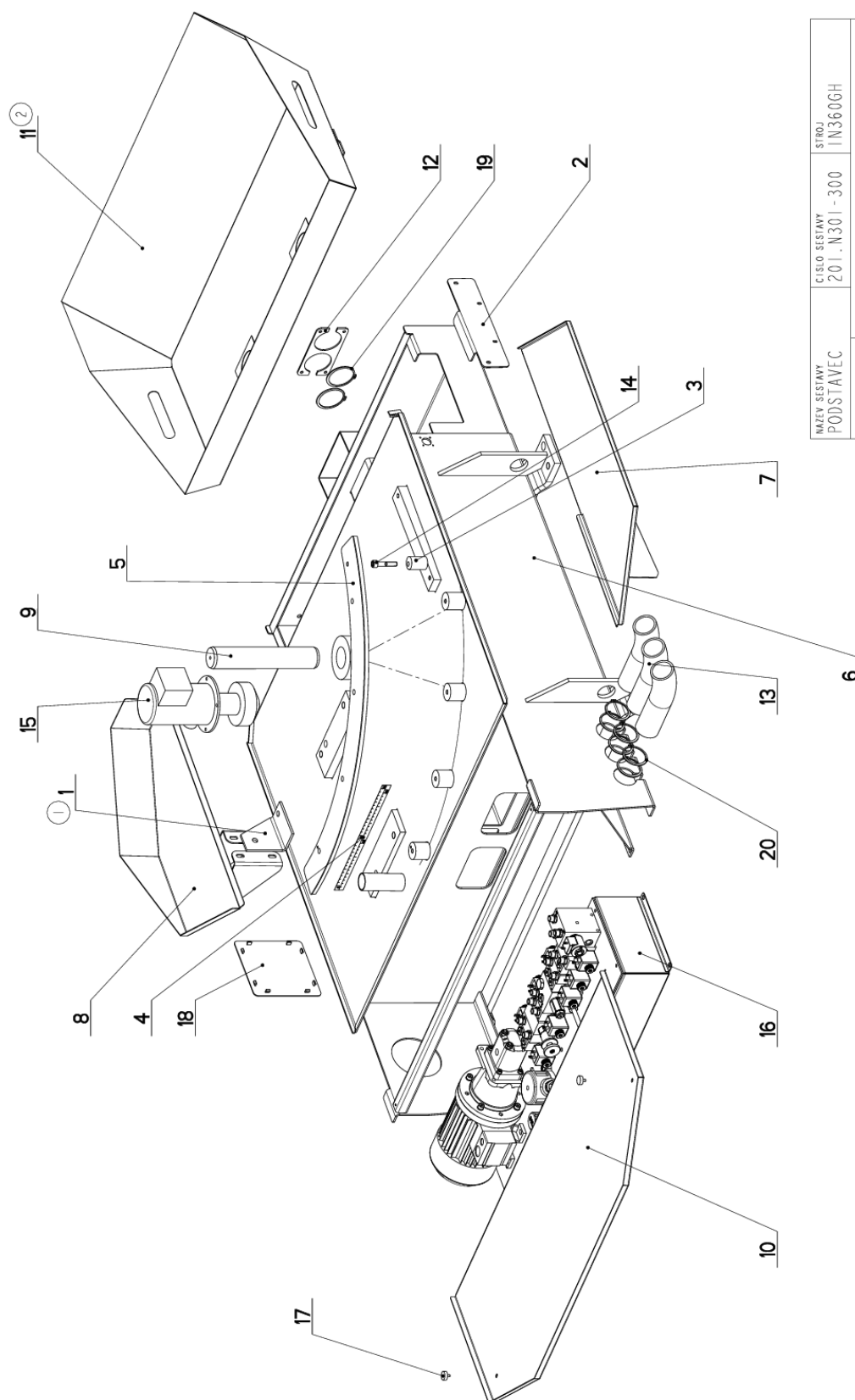
7.4. Pila pásová/ Band saw/ Bandsäge



7.5. Kusovník / Piece list / Stückliste -
Pila pásová/ Band saw/ Bandsäge

Číslo sestavy 201.N300-300		Ver. 0	Název sestavy PILA PÁSOVÁ/BAND SAW/BANDSÄGE			
Poz.	Objednací číslo	Ver.	Název položky		Rozměr	Ks
1	201.N301-300	0	PODSTAVEC / BASE / UNTERSATZ			I
2	201.N302-200	0	KONZOLA OTOCNÁ / TURNABLE CONSOL / DREHKONSOLE			I
3	201.N303-200	0	SVRAK / VICE / SCHRAUBSTOCK			I
4	201.Y304-100	5	RAMENO / SHOULDER / SÄGERAHMEN			I
5	201.Y307-010	3	VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLINDER			I
6	201.Y330-100	0	OWLEADACT-PANEL / CONTROL-PANEL / BEDIENTPULT			I
7	30.N399-001	0	STÍTEK TYPY / MACHINE LABEL / MASCHINE SCHILD		P 0.5x65	I
8	31.0899-004	0	SAMOLEPKA / STICKER / AUFLEBER			I
9	99.900.039	0	SAMOLEPKA / STICKER / AUFLEBER		NEBEZP-STLACENI	I
10	99.900.043	0	SAMOLEPKA / STICKER / AUFLEBER			I
11	99.900.045	0	SAMOLEPKA / STICKER / AUFLEBER			I
12	99.900.046	0	SAMOLEPKA / STICKER / AUFLEBER			I
13	99.900.047	0	SAMOLEPKA / STICKER / AUFLEBER			I
14	99.900.048	0	SAMOLEPKA / STICKER / AUFLEBER			I
15	99.900.049	0	SAMOLEPKA / STICKER / AUFLEBER			I
16	99.900.053	0	SAMOLEPKA / STICKER / AUFLEBER			I
17	99.901.029	0	SAMOLEPKA / STICKER / AUFLEBER			I
18	99.901.032	0	SAMOLEPKA / STICKER / AUFLEBER		CETIFIKACNI SAMOLEPKA	I

7.5.1. Podstavec / Base / Untersatz



NAZEV SESTAVY PODSTAVEC	CÍSLO SESTAVY 201-N301-300	STROJ IN360GH
Konstruoval: MUSIL		
Datum: 10. 10.2012		
Měřítko: 13:100		

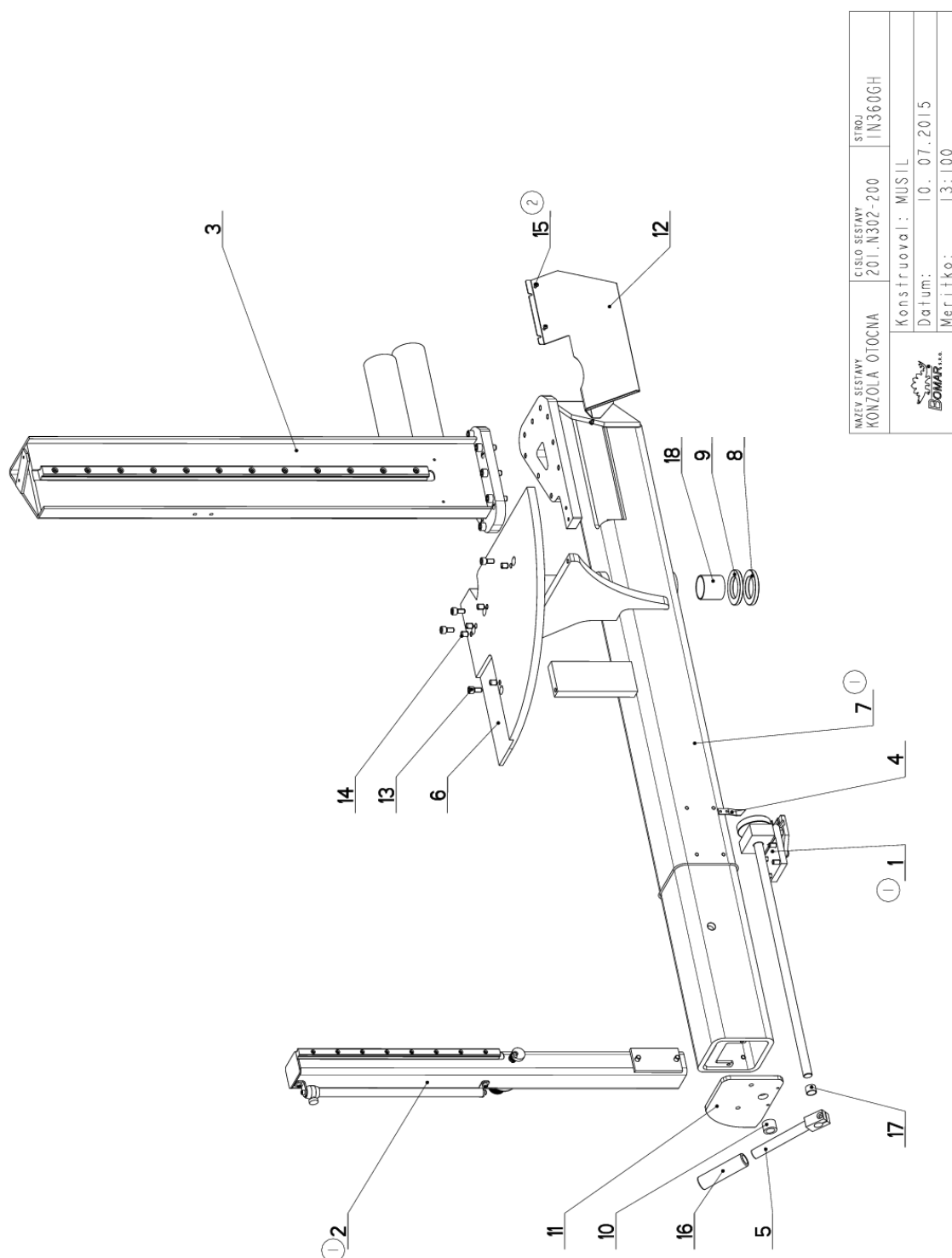
7.5.2. Kusovník / Piece list / Stückliste -
Podstavec / Base / Untersatz

Císlo Sestavy 201.N301-300		Ver. 2	Název sestavy PODSTAVEC/BASE/UNTERSATZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.7202-199 (1)	2	KONZOLA / CONSOLE / KONSOLE	HR 100x5	1
2	30.D314-130	1	KRYT / COVER / ABDECKUNG	P3-104	1
3	30.N301-005		EXCENTR / CAM / EXZENTER	d 30	1
4	30.N301-041	0	STUPNICE / SCALE / SKALA	P0,5-22	1
5	30.N301-102	0	SEGMENT / SEGMENT / SEGMENT	P12x207	1
6	30.N301-301	1	PODSTAVEC / BASE / UNTERSATZ		1
7	30.N301-316	0	OKAP / GUTTER CHANNEL / BLECH		1
8	30.N314-117	0	OKAP / GUTTER CHANNEL / BLECH		1
9	30.Y301-308	0	CEP / LUG / BOLZEN	d 50 h6	1
10	30.Y301-309	0	KRYT / COVER / ABDECKUNG	P 1.5x483	1
11	30.Y301-320 (2)	0	VANA / TANK / WANNE		1
12	30.Y502-163	0	UCHYTKA / CLIP / HALTER	P3-80	1
13	41.001.006	0	HADICE / HOSE / SCHLAUCH	55/46	3
14	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x50	1
15	91.020.015	0	CERPADLO / PUMP / PUMPE	3C0A4-12	1
16	92.001.077	0	AGREGAT HYDRAULICKÝ / HYDRAULIC GENERATOR / HYDRAULIKAGGREGAT		1
17	94.007.001	0	SROUB / BOLT / SCHRAUBE	M5x10	2
18	94.101.039	0	ZASLEPKA / PLUG / BLINDFLANSCH	154x154x4	1
19	95.800.021	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTINÝ KROUZEK 62	2
20	95.800.034	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTINÝ KROUZEK 55	6

1. PRIDANA KONZOLA 30.7202-199. 233/ZM297 10.10.2012 SLEZACKOVA

2. ZRUS.VANA 30.Y301-310 A NAHR.30.Y301-320. 239/ZM105 29.3.2013 SLEZACKOVA

7.5.3. Konzola otočná / Turnable consol / Drehkonsole



7.5.4. Kusovník / Piece list / Stückliste -
Konzola otočná / Turnable consol / Drehkonsole

Číslo Sestavy 201.N302-200		Ver. 2	Název sestavy KONZOLA OTOČNÁ/TURNABLE CONSOL/DREHKONSOLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.Y302-120 (1)	0	BRZDA / BRAKE / BREMSE		1
2	201.Y302-150 (1)	4	SLOUP / POLE / SAULE	SESTAVA	1
3	201.Y302-260	2	SLOUP / POLE / SAULE	SESTAVA	1
4	30.4604-004	0	UKAZATEL / INDICATOR / ZEIGER	P 1,5x15	1
5	30.8602-505	0	PAKA / LEVER / HEBEL		1
6	30.N302-004	2	DESKA / BOARD / PLATTE	P 20 - 430	1
7	30.N302-201 (1)	2	KONZOLA / CONSOLE / KONSOLE	SVARENO	1
8	30.Y302-006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 80	1
9	30.Y302-007	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 80	1
10	30.Y302-204	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 30x5	1
11	30.Y302-303	0	VÍKO / COVER / DECKEL	P10x150	1
12	30.Y314-401	2	SKLUZ / SLIDE / RUTSCH	P 1x238	1
13	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	4
14	90.002.20.017	0	SROUB STAVEČI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x16	5
15	90.013.27.003 (2)	0	SROUB / BOLT / SCHRAUBE	M5x10	3
16	94.004.502	0	RUKOJET / HANDLE / GRIFF	D22	1
17	95.700.003	0	POUZDRO / SLEEVE / BÜCHSE	20x15	1
18	95.720.002	0	POUZDRO / SLEEVE / BÜCHSE	50x50x55	2

1.ZM.DELKY KONZOLY 30.N302-201(1789 NA 1812).ZM.SIRKY SLOUPU 30.Y302-151(40 NA 60).ZM.DELKY EXCENTRU BRZDY 30.Y302-125(650 NA 673). 247,252/M311 9.11.2012 SLEZACKOVA

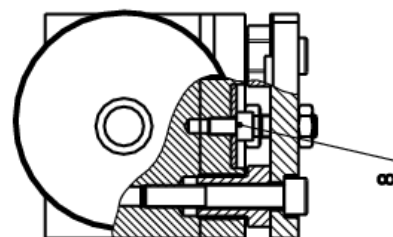
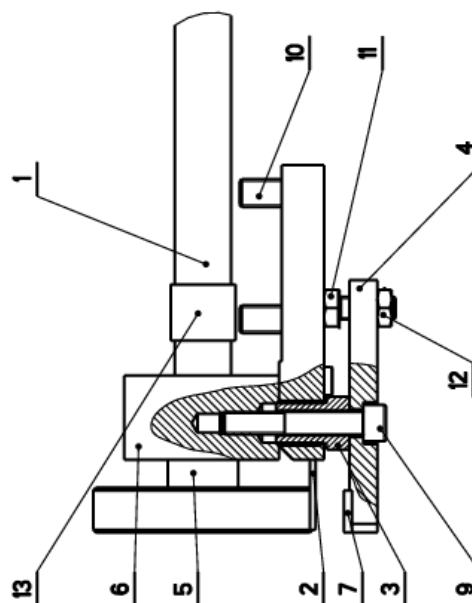
2.PRIDAN 3xSROUB M5x10 (90.013.27.003). 003/ZM160 10.7.2015 SLEZACKOVA

Číslo 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

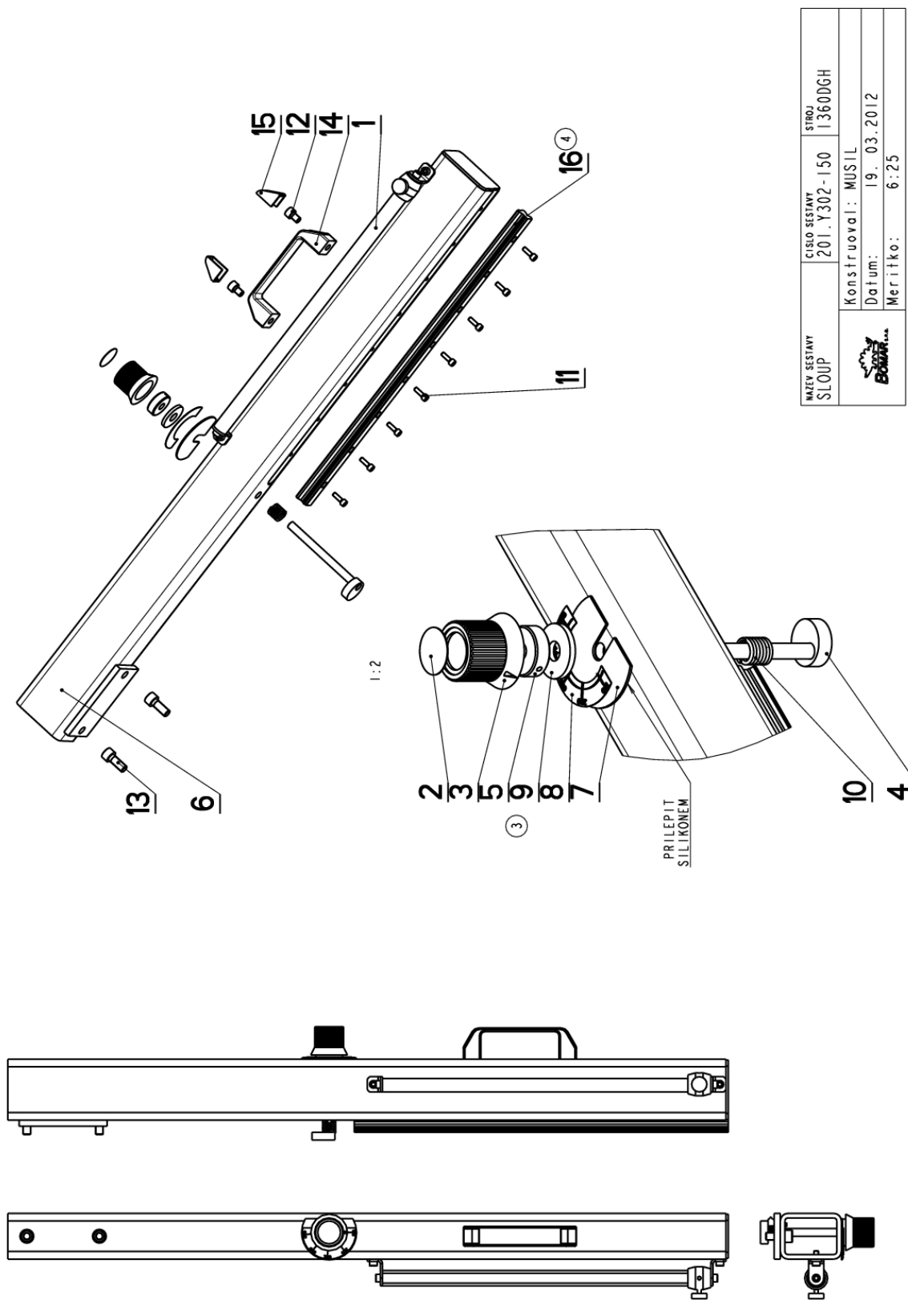
Číslo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version); Název sestavy/Assembly title/Name der Baugruppe; Pozice (Pos./Position/Position);
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.5.5. Brzda / Brake / Bremse

Cislo Sestavy 201.Y302-120		Ver. 0	Navez sestavy BRZDA/BRAKE/BREMSE		
Poz.	Objednaci cislo	Ver.	Navez polozky	Rozmer	Ks
1	30.Y302-125	0	EXCENTR / CAM / EXZENTER		1
2	30.Y402-022	0	DESKA / BOARD / PLATTE	P2-30	1
3	30.Y402-023	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	6HR 19	2
4	30.Y402-024	0	DESKA / BOARD / PLATTE	HR 80x10	1
5	30.Y402-027	0	KROUZEK / RING / RING	TR 25x5	1
6	30.Y402-028	0	TELESO / BODY / KÖRPER		1
7	30.Y402-029	0	DESKA / BOARD / PLATTE	P 3-15	1
8	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	2
9	90.001.25.038	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x50	2
10	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	4
11	90.005.55.015	0	6 HR SROUB ZIN / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x20	1
12	90.101.55.001	0	MATICE PR. NITZKA ZN / NUT / MUTTER	MATICE M8	1
13	95.700.004	0	POUZDRO / SLEEVE / BÜCHSE	20x20	1



7.5.6. Sloup / Pole / Säule



NAZEV SESTAVY SLOUP	CISLO SESTAVY 201.Y302-150	STROJ 1360DGH
Konstruoval: MUSIL		
Datum: 19. 03.2012		
Meritko: 6:25		

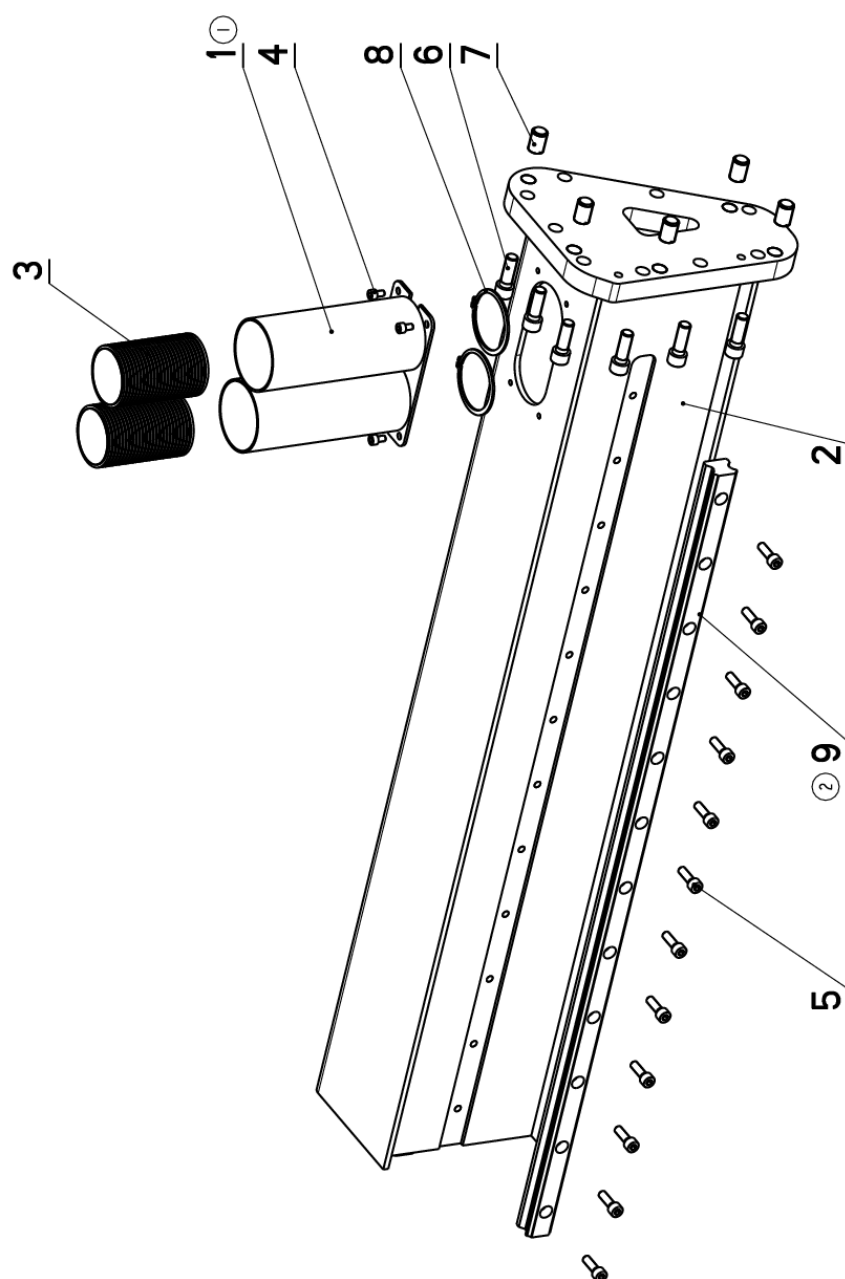
7.5.7. Kusovník / Piece list / Stückliste -
Sloup / Pole / Säule

Císto Sestavy 201.Y302-150		Ver. 4	Název sestavy SLOUP/POLE/SÄULE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.Y302-070	0	ODMEROVÁNÍ / MEASURING / GEHRUNGSMESSUNG	SESTAVA	1
2	30.6130-012	0	VÍKO / COVER / DECKEL	P 0.5x 30x30	1
3	30.6130-020	0	OVLADÁNÍ / CONTROLS / STEUERUNG	VYLISEK	1
4	30.Y302-055	1	OSA / AXLE / AXSE	SVARENO	1
5	30.Y302-058	1	VLOŽKA / INSERT / EINLAGE	d 32	1
6	30.Y302-151	3	SLOUP / POLE / SÄULE	SVARENO	1
7	30.Y302-153	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	Pl, 5-72	1
8	30.Y302-154	0	STUPNICE / SCALE / SKALA	Pl-41	1
9	31.K107-006 (3)	1	GUMA / RUBBER / GUMMI	d35	1
10	31.Y302-054	0	PRUŽINA / SPRING / FEDER	d 2.24	1
11	90.001.25.009	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	MSX16	8
12	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	MBX12	2
13	90.001.25.047	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X25	2
14	94.012.001	0	RUKOJET / HANDLE / GRIFF		1
15	94.012.002	0	ZATKA / PLUG / STOPFEN		2
16	99.200.286 (4)	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FUHRUNG	MSA 20R 490 35/35N	1

- 1.ZRUS.LIN.VEDENÍ HGR 20 L=490 (99.200.111) A NAHR.LIN.VEDENÍM HSR20 L=490 (99.200.137). 120/ZMI49 23.6.2009 SLEZACKOVA
2.ZRUS.LINEARNÍ VEDENÍ HSR20 490 (99.200.137) A NAHR.HGR20 490 (99.200.111). 290/ZM303 5.11.2010 SLEZACKOVA
3.ZRUS.GUMA 30.Y302-157 A NAHR.31.K107-006. 125/ZMI41 10.6.2011 SLEZACKOVA
4.ZRUS.LIN.VEDENÍ 99.200.111 A NAHR.99.200.286. 056/ZMI00 19.3.2012 SLEZACKOVA

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

7.5.8. Sloup / Pole / Säule



MAZEV SESTAVY SLOUP	CISLO SESTAVY 201.Y302-260	STROJ IN 360
Konstruoval: MUSIL		
Datum: 19. 03.2012		
Meritko: 1:4		

7.5.9. Kusovník / Piece list / Stückliste -
Sloup / Pole / Säule

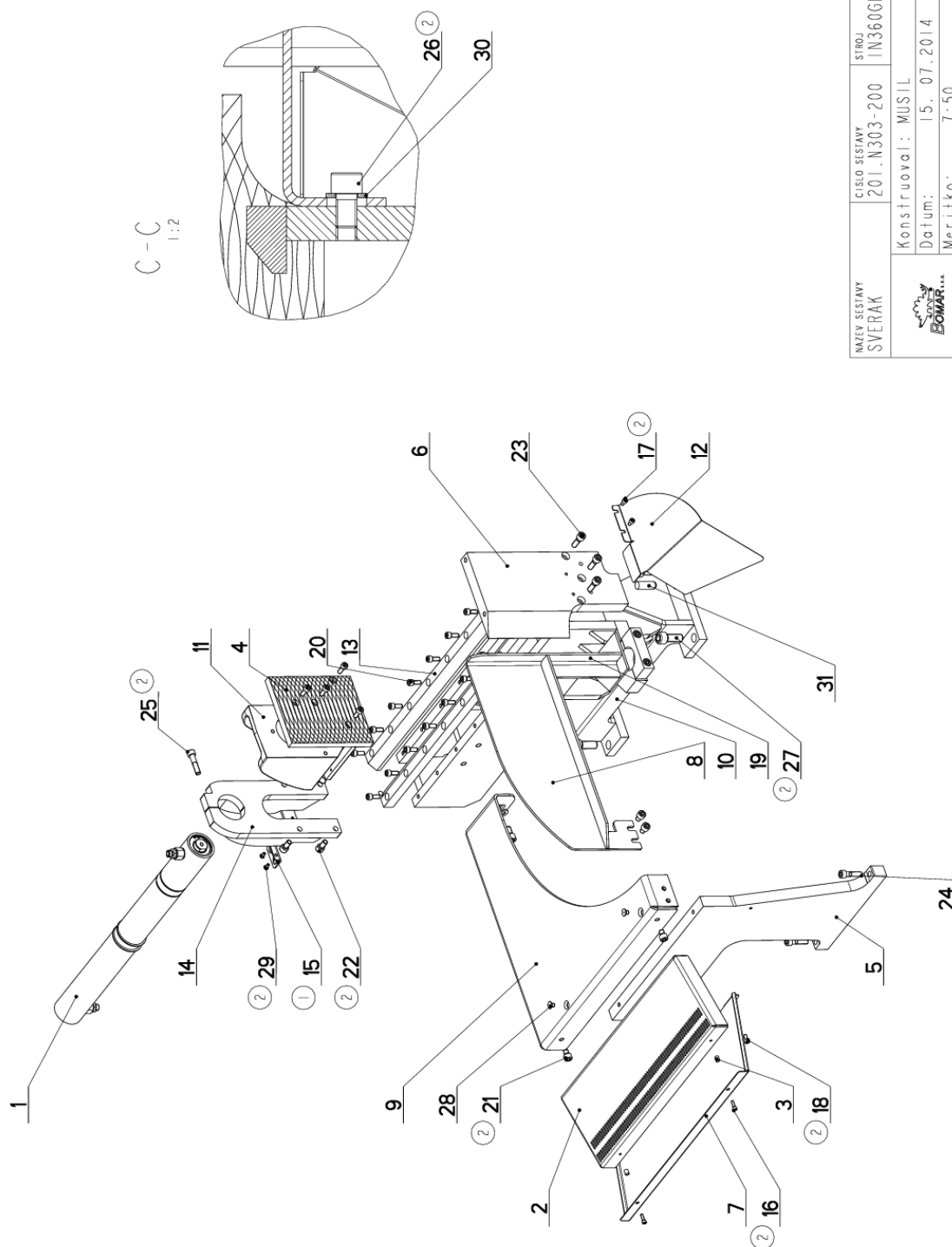
Císlo Sestavy 201.Y302-260	Ver. 2	Název sestavy SLOUP/POLE/SAULE			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y302-125 (1)	0	DRŽAK / HOLDER / HALTER		1
2	30.Y302-261	0	SLOUP / POLE / SAULE	SVARENO	1
3	41.001.006	0	HADICE / HOSE / SCHLAUCH	PG48	2
4	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	4
5	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	12
6	90.001.25.059	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x35	9
7	90.002.20.028	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M16x1,5x25	5
8	95.800.021	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTNY KROUZEK 62	2
9	99.200.285 (2)	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 30R 940 30/30N	1

1.ZRUS.DRŽAK 30.Y502-163 A NAHR.30.Y302-125. 282/ZM322 12.12.2011 SLEZACKOVA

2.ZRUS.LIN.VEDENÍ 99.200.108 A NAHR.99.200.285 . 056/ZM100 19.3.2012 SLEZACKOVA

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

7.5.10. Svěrák / Vice / Schraubstock



NAZEV SESTAVY SVĚRÁK	ČÍSLO SESTAVY 201.N303-200	STROJ IN360GH
	Konstruoval: MUSIL	
	Datum: 15. 07.2014	
	Měřitko: 7:50	

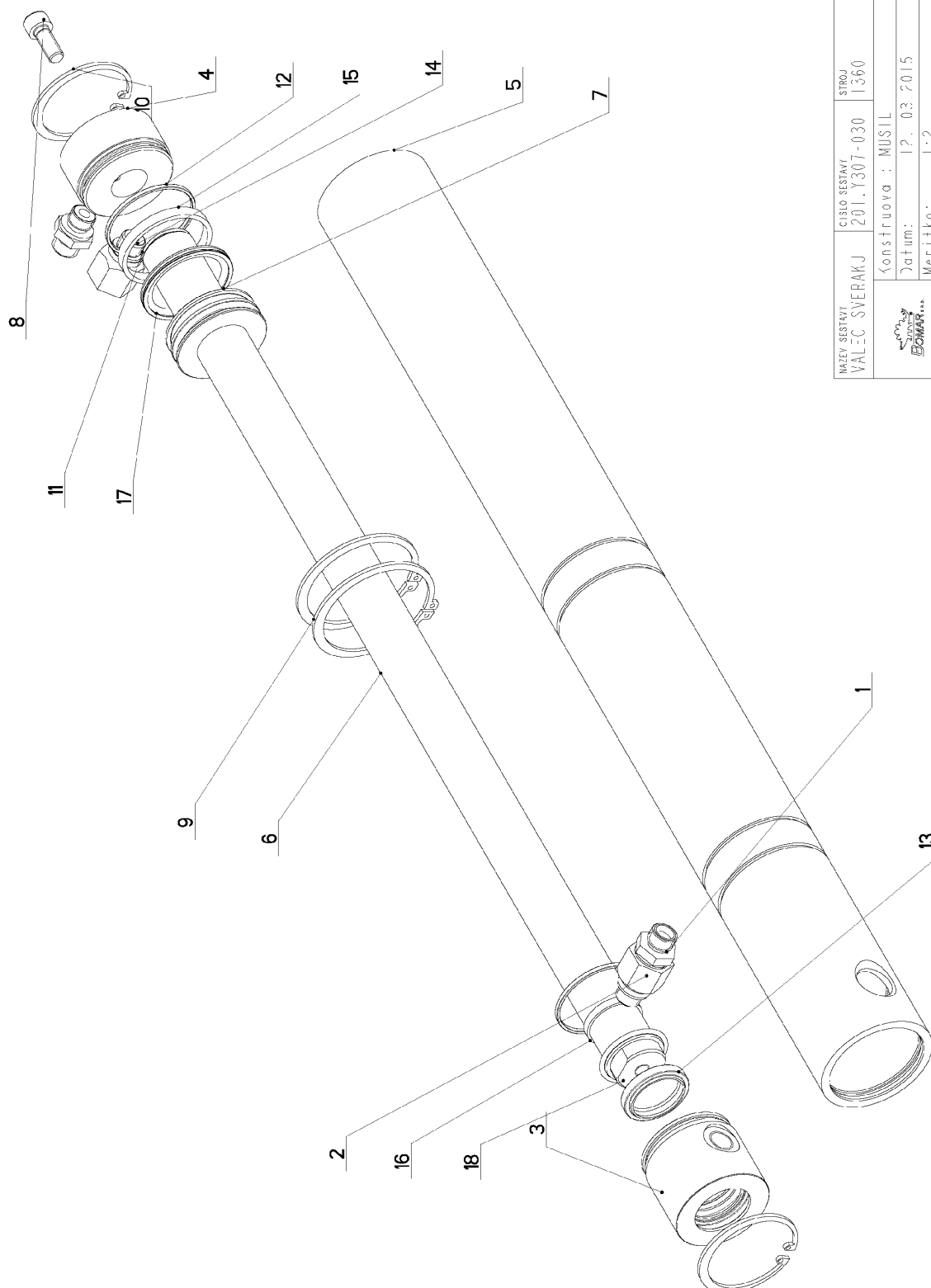
7.5.11. Kusovník / Piece list / Stückliste -
Svěrák / Vice / Schraubstock

Císlo Sestavy 201.N303-200		Ver. 2	Název sestavy SVERÁK/VICE/SCHRAUBSTOCK		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.Y307-030	1	VALEC SVERÁKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
2	30.2903-012	3	ROST / GRILL / GITTER	P 3x240	1
3	30.3509-015	2	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 8x1	2
4	30.N303-009	1	CELIST / JAW / BÄCKE	HR 200x16	1
5	30.N303-013	0	NOHA / LEG / STÄNDER	P25 - 394	1
6	30.N303-104	1	CELIST PEVNÁ / SOLID JAW / FESTE BÄCKE	P30x195	1
7	30.N303-112	0	SKLÚZ / SLIDE / RUTSCH	P 1,5x272	1
8	30.N303-206	0	BOČNICE / SIDE PLATE / SEITENTEIL		1
9	30.N303-210	0	STUHL / TABLE / TISCH	P 5x640	1
10	30.N303-301	1	TELESO SVERÁKU / VICE BODY / SCHRAUBSTOCKKÖRPER		1
11	30.N303-305	0	CELIST / JAW / BÄCKE		1
12	30.N314-202	0	SKLÚZ / SLIDE / RUTSCH	P 1,5x263	1
13	30.Y303-102	0	LISTA VODÍČI / LEAD TRIM / FÜHRUNGSEIESTE	HR 40x25	2
14	30.Y303-104	4	DRŽÁK / HOLDER / HALTER		1
15	30.Y309-204	0	DRŽÁK / HOLDER / HALTER	P 3x45	1
16	90.001.25.009	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x16	2
17	90.001.25.015	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	2
18	90.001.25.016	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x12	2
19	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x12	2
20	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	20
21	90.001.25.043	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x12	4
22	90.001.25.046	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	4
23	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	3
24	90.001.25.050	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x40	2
25	90.001.25.051	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x45	1
26	90.001.25.056	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x20	2
27	90.001.25.086	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16x40	4
28	90.011.27.010	0	ZAPŮSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8x10	2
29	90.013.27.003	2	SROUB / BOLT / SCHRAUBE	M5x10	2
30	90.150.50.007	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 13	2
31	90.300.02.035	0	KOLÍK VÁLC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 16x45	2

1. PRIDAN DRŽÁK 30.Y309-204, 025/ZM065 11.3.2013 SLEZACKOVA
2. PRID. SROUBY - 2x M5x16(90.001.25.009), 2x M6x10(90.001.25.015), 2x M6x12(90.001.25.016), 2x M10x12(90.001.25.043),
4x M10x20(90.001.25.046), 1x M10x45(90.001.25.051), 2x M12x20(90.001.25.056), 4x M16x40(90.001.25.086), 2x M5x10(90.013.27.003).
ZRUS. 2x SROUB M10x40(90.001.25.050), 2x MATICE 10(90.100.55.006), 2x PODLOŽKA 10(90.150.50.006), 102/ZM152 15.7.201

Císlo 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; Verze položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.5.12. Válec svěráku / Vice cylinder / Schraubstockzylinder



NAZEV SESTAVY VÁLEC SVĚRAKU	ČÍSLO SESTAVY 201.Y307-030	STROJ 1360
Konstruová : MUSIL		
Datum: 12. 03. 2015		
Měřítko: 1:2		

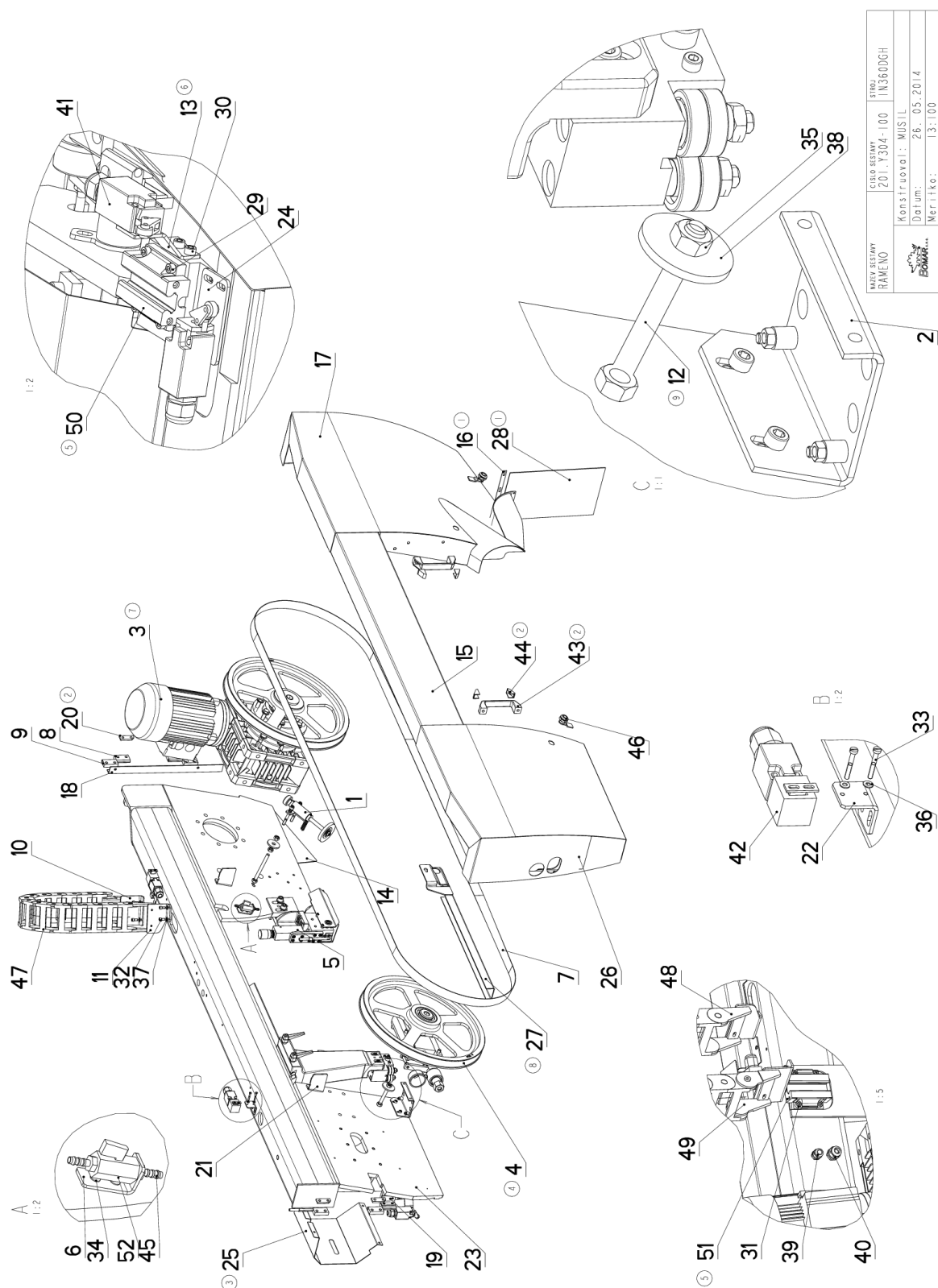
7.5.13. Kusovník / Piece list / Stückliste -
Válec svěráku / Vice cylinder / Schraubstockzylinder

Císlo Sestavy 201.Y307-030		Ver. 1	Název sestavy VALEC SVĚRAKU/VICE CYLINDER/SCHRAUBSTOCKZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1807-005	3	SROUBENÍ / BOLTING / VERSCHRAUBUNG	6-HR 22	2
2	30.2807-109	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		2
3	30.C407-012	1	VÍKO / COVER / DECKEL	d 55	1
4	30.C407-111	0	VÍKO / COVER / DECKEL	d 55	1
5	30.Y307-033	3	VALEC SVĚRAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER	TR 62/50	1
6	30.Y307-034	2	PISTNICE / PISTON ROD / KOLBENSTANGE	d 28 f8	1
7	30.Y307-035	0	PIST / PISTON / KOLBEN	d 55	1
8	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	1
9	95.800.021	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 62	2
10	95.801.009	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 52	2
11	96.002.011	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	24x2	1
12	96.002.019	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	45x2 NBR 70SH	2
13	96.061.009	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	WD2200280 Z201	1
14	96.082.002	0	TESNENÍ / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	4
15	96.084.001	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GP6500500-T47	1
16	96.084.006	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GR4300280-T47	1
17	96.900.001	0	TESNENÍ KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	PW4200500-Z20N	1
18	96.900.021	0	TESNENÍ KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	RSK200280-46N	1

1. ZM. DELKY ZDVIHU 520 NA 528. 226/ZM270 4. 10. 2011 SLEZACKOVA

Císlo 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

7.5.14. Rameno / Shoulder / Sägerahmen

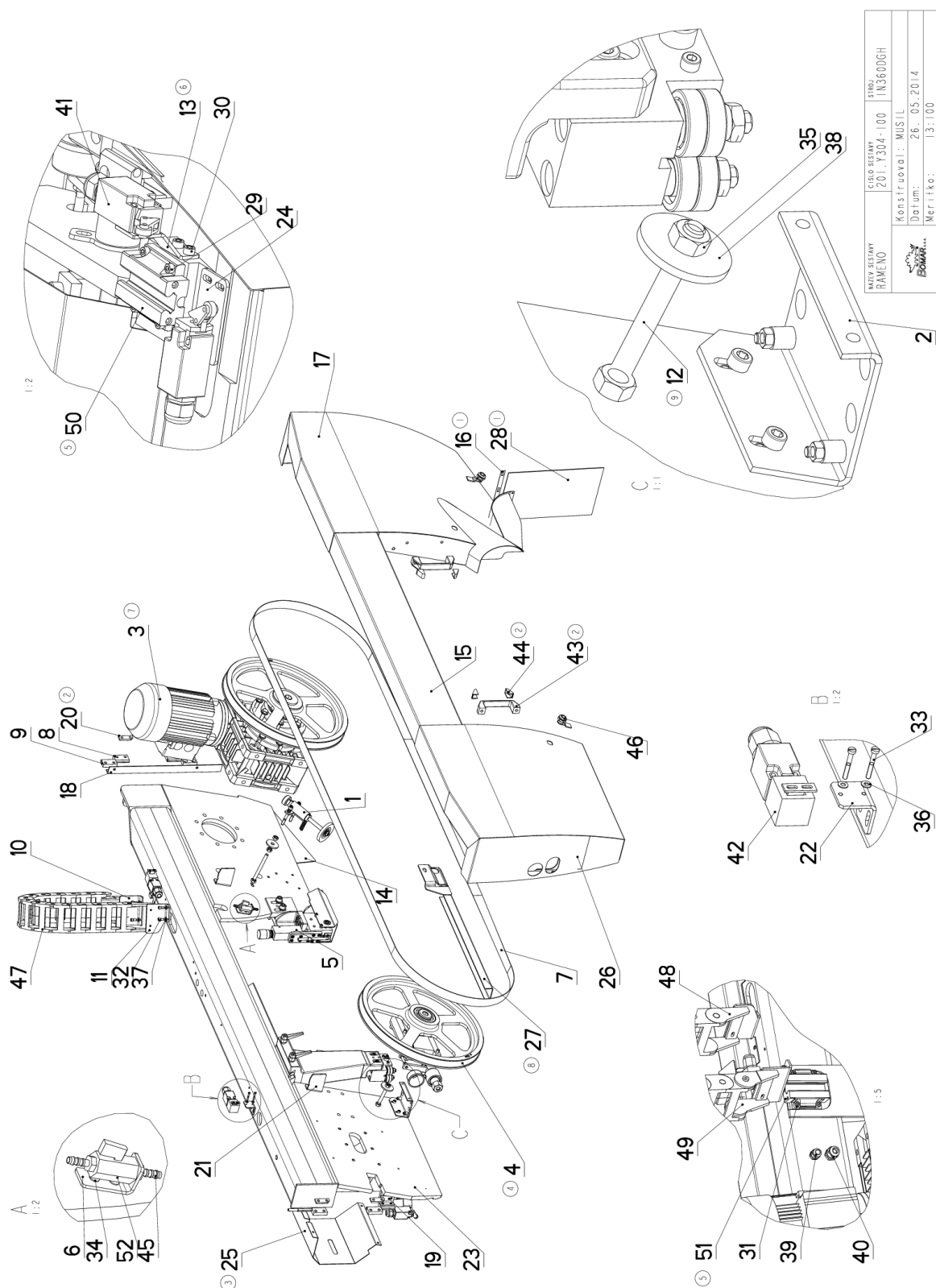


7.5.15. Kusovník / Piece list / Stückliste -
Rameno / Shoulder / Sägerahmen

Císlo Sestavy 201.Y304-100		Ver. 9	Název sestavy RAMENO/SHOULDER/SÄGERAHMEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.9114-300	0	KARTAC / BRUSH / BURSTE		1
2	201.Y304-010	0	VEDENÍ / GUIDE / BACKENFÜHRUNG	VEDENÍ KRYTÍ	1
3	201.Y305-100	7	POHON / DRIVE / ANTRIEB	POHON PASU	1
4	201.Y308-000	1	NAPÍNÁNÍ / TENSIONING / SPANNUNG		1
5	201.Y310-000	2	VEDENÍ PASU / BELT GUIDE / SÄGEBANDFÜHRUNG		1
6	30.1814-011	2	DRŽÁK / HOLDER / HALTER	P 3x76	1
7	30.2904-913	0	PAS PÍLOVÝ / SAW BELT / SÄGEBAND	4780x32(4)x0.90	1
8	30.6014-109	1	PANT / HINGE / TÜRBAND		4
9	30.6014-110	1	PANT / HINGE / TÜRBAND	HR 30x12	4
10	30.7114-142	1	DRŽÁK / HOLDER / HALTER	P 4x100	1
11	30.7304-014	0	DRŽÁK / HOLDER / HALTER	P 4x100	1
12	30.Y304-002	9	TYC ZAVÍTOVÁ / THREADED POLE / GEWINDESTANGE	M10	2
13	30.Y304-014	6	DRŽÁK / HOLDER / HALTER	P 3x30	1
14	30.Y304-027	0	KRYT / COVER / ABDECKUNG	P2 - 114	1
15	30.Y304-029	0	KRYT PASU / BELT COVER / BANDABDECKUNG		1
16	30.Y304-030	1	PLECH / PLATE / BLECH	P 1-15	1
17	30.Y304-031	2	KRYT RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
18	30.Y304-033	1	DRŽÁK / HOLDER / HALTER	L 20x30	1
19	30.Y304-034	1	DRŽÁK / HOLDER / HALTER	L 20x30	1
20	30.Y304-035	2	DESKA / BOARD / PLATTE	HR 20x5	4
21	30.Y304-038	0	ZAMEK / LOCK / SCHLOSS	P4 - 67	2
22	30.Y304-039	0	DRŽÁK / HOLDER / HALTER	P 3x34	2
23	30.Y304-101	7	RAMENO / /		1
24	30.Y304-107	0	DRŽÁK / HOLDER / HALTER	P 3x40	1
25	30.Y304-115	3	KRYT NAPÍNÁNÍ / TENSIONING COVER / BANDSPANNUNGSABDECKUNG	P 1,5x244	1
26	30.Y304-132	4	KRYT RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
27	30.Y304-159	8	KRYT PASU / BELT COVER / BANDABDECKUNG		1
28	31.PK02-054	1	GUMA / RUBBER / GUMMI	G2 - 206	1
29	90.001.25.009	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x16	4
30	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	2
31	90.001.25.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x30	8
32	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	4
33	90.012.50.007	0	SROUB / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M4x30	4
34	90.013.27.003	0	SROUB / BOLT / SCHRAUBE	M5x10	2

Cislo 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

7.5.16. Rameno / Shoulder / Sägerahmen

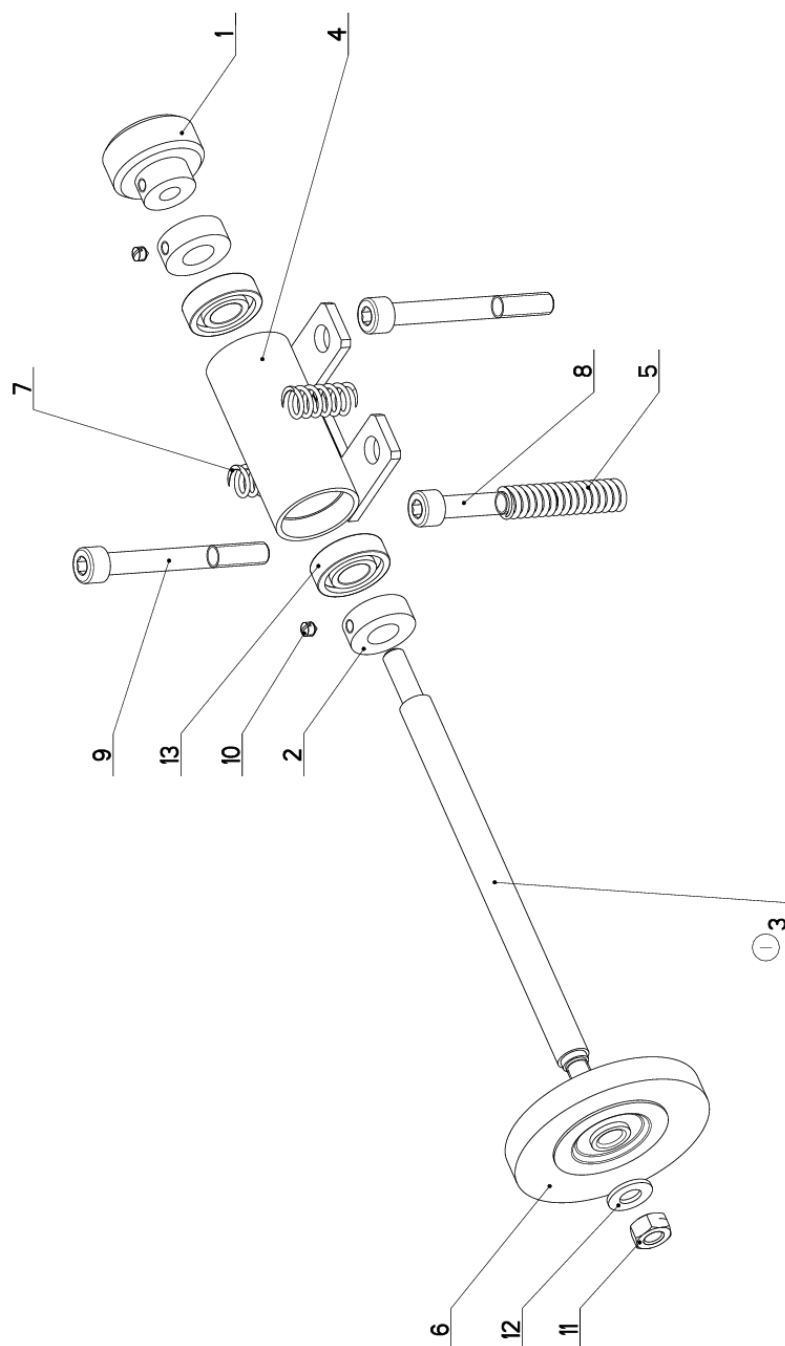


7.5.17. Kusovník / Piece list / Stückliste -
Rameno / Shoulder / Sägerahmen

35	90.100.55.006	0	MATICE / NUT / MUTTER	MATICE - M10	6
36	90.150.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	PODLOZKA 4,3	4
37	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	PODLOZKA 6,4	4
38	90.151.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHIBE	PODLOZKA 12	2
39	91.070.011	0	VYVODKA / BUSHING / TÜLLE	M16x1,5	1
40	91.070.012	0	VYVODKA / BUSHING / TÜLLE	M20x1,5	1
41	91.173.010	0	SPINAC KONC.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	PZ-FR605-M2	2
42	91.173.012	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	QKS8-2xNC	2
43	94.012.001	2	RUKOJET / HANDLE / GRIFF		2
44	94.012.002	2	ZATKA / PLUG / STOPFEN		4
45	94.202.002	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	REDUKCE 6/RI/4"	2
46	99.104.002	0	ZAMEK / LOCK / SCHLOSS	ZAMEK C1NSKY	2
47	99.170.001	0	RETEZ ENERGI / ENERGY BELT / ENERGIEKETTE	0555.030.075.100	14
48	99.173.001	0	RETEZ ENERGI / ENERGY BELT / ENERGIEKETTE	KONCOVKA VNEJ	1
49	99.173.002	0	RETEZ ENERGI / ENERGY BELT / ENERGIEKETTE	KONCOVKA VNIT	1
50	99.201.045	5	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA20E SS FO N	1
51	99.201.058	5	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA30E SS FO N	2
52	99.260.003	0	VENTIL / VALVE / VENTIL	1/4"	1

1. ZRUS.2xVOZIK HGW 30CC(99.201.007) A NAHR.2xVOZIKEM HSR 30B SS(99.201.027), HGW20 CC(99.201.012)
A NAHR.VOZIKEM HSR 20B SS CI(99.201.025), PRID.GUMA 31.PK02-054, PLECH 30.Y304-030. 120/ZM149 19.9.2006 SLEZACKOVA
2. PRIDANO 4xDESKA 30.Y304-035,2xRUKOJET 94.012.001,4xZATKA 94.012.002. 198/ZM244 11.12.2009 SLEZACKOVA
3. ZRUS.2xVOZIK HSR 30B SS(99.201.027) A NAHR.2xVOZIKEM HGW 30CC(99.201.007), HSR 20B SS CI(99.201.025)
A NAHR.VOZIKEM HGW20 CC(99.201.012), KRYT 30.Y304-023 NAHRAZEN KRYTEM 30.Y304-115; 285/zm293 29.10.2010 HLADIL
4. KRYT 30.Y304-032 NAHRAZEN KRYTEM 30.Y304-132; 275/zm.302 HLADIL 18.11.2011
5. ZRUS.VOZIK LIN.VEDENI 99.201.007 A NAHR.99.201.058,ZRUS.VOZIK LIN.VEDENI 99.201.045 A NAHR.99.201.045 .
056/ZM100 20.3.2012 SLEZACKOVA
6. ZRUS.DRZAK 30.Y304-013 A NAHR.30.Y304-014. 247,252/ZM311 9.11.2012 SLEZACKOVA
7. ZRUS.POHON 201.Y305-000 A NAHR.201.Y305-100. 056/ZM105 28.3.2013 SLEZACKOVA
8. ZRUS.KRYT PASU 30.Y304-059 A NAHR.30.Y304-0159. 065/ZM114 26.5.2014 MUSIL
9. ZRUSENA ZAVITOVA TYC 30.Y404-018 A NAHRAZENA 30.Y304-002. 075/ZM055 25.3.2015 SLEZACKOVA

7.5.18. Kartáč / Brush / Burste



NAZEV SESTAVY KARTÁČ	CÍSLO SESTAVY 201.9114-300	STROJ EC0260
Konstruoval: STASTNA		
Datum: 12. 02.2015		
Měřitko: 7:10		

7.5.19. Kusovník / Piece list / Stückliste -
Kartáč / Brush / Bürste

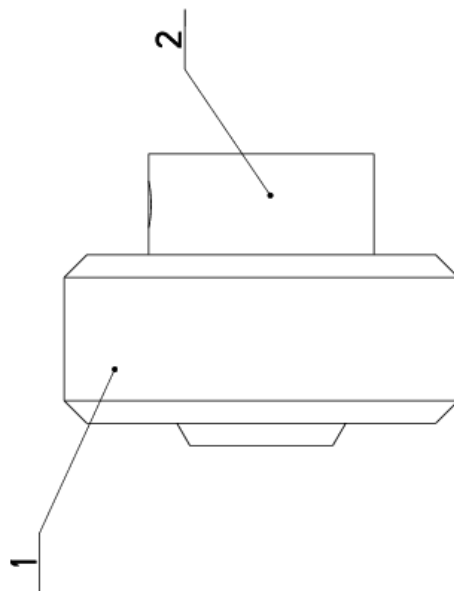
Číslo Sestavy 201.9114-300		Ver. 0	Název sestavy KARTAC/BRUSH/BURSTE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.0814-204	0	KOLEČKO / WHEEL / ROLLE	SESTAVA	1
2	30.0814-207	0	KROUZEK / RING / RING	d 25	2
3	30.9114-301 (1)	0	HRDEL / SHAFT / WELLE	d 12	1
4	30.9214-301	2	DRŽÁK / HOLDER / HALTER		1
5	31.0305-211	0	PRUŽINA / SPRING / FEDER	2x12x50x15,5	1
6	31.0814-208	0	KARTAC / BRUSH / BÜRSTE		1
7	31.1506-115	0	PRUŽINA / SPRING / FEDER	1.6x12x25x7,5	2
8	90.001.25.038	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x50	1
9	90.001.25.095	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x70	2
10	90.003.20.001	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x6	3
11	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
12	90.150.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 8,4	1
13	95.001.005	0	LOŽISKO / BEARING / LAGER	6001 2RS	2

1. ZRUŠENA HRDEL 30.0814-206 A MAHR. 30.9114-301 23.1.03 STASTNA

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

7.5.20. Kolečko / Eheel / Rolle

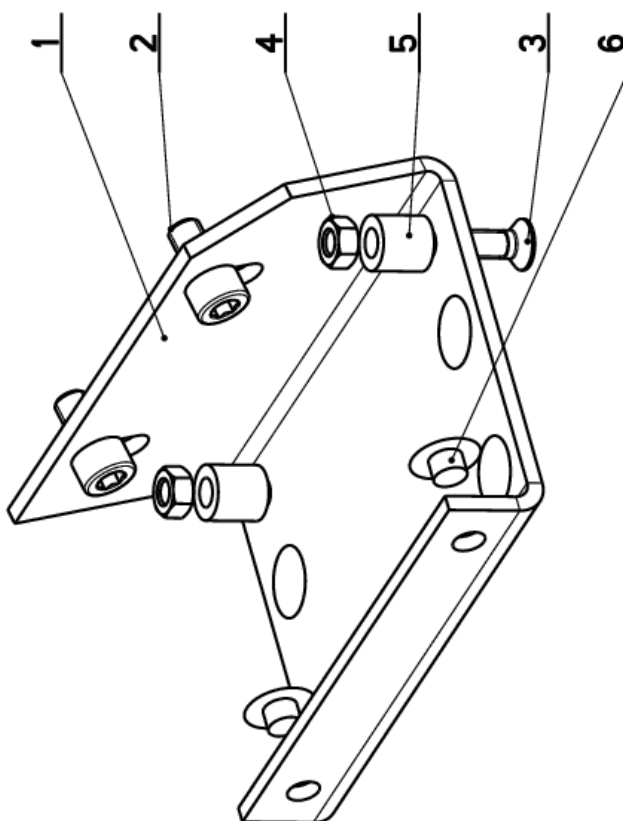
Císlo Sestavy 201.0814-204		Ver. 0	Nazev sestavy KOLECKO/WHEEL/ROLLE		
Poz.	Objednací číslo	Ver.	Nazev položky	Rozmer	Ks
1	30.0814-204.1	0	KOLECKO / /	d 35	1
2	30.0814-204.2	0	NABOJ / /	d 20	1



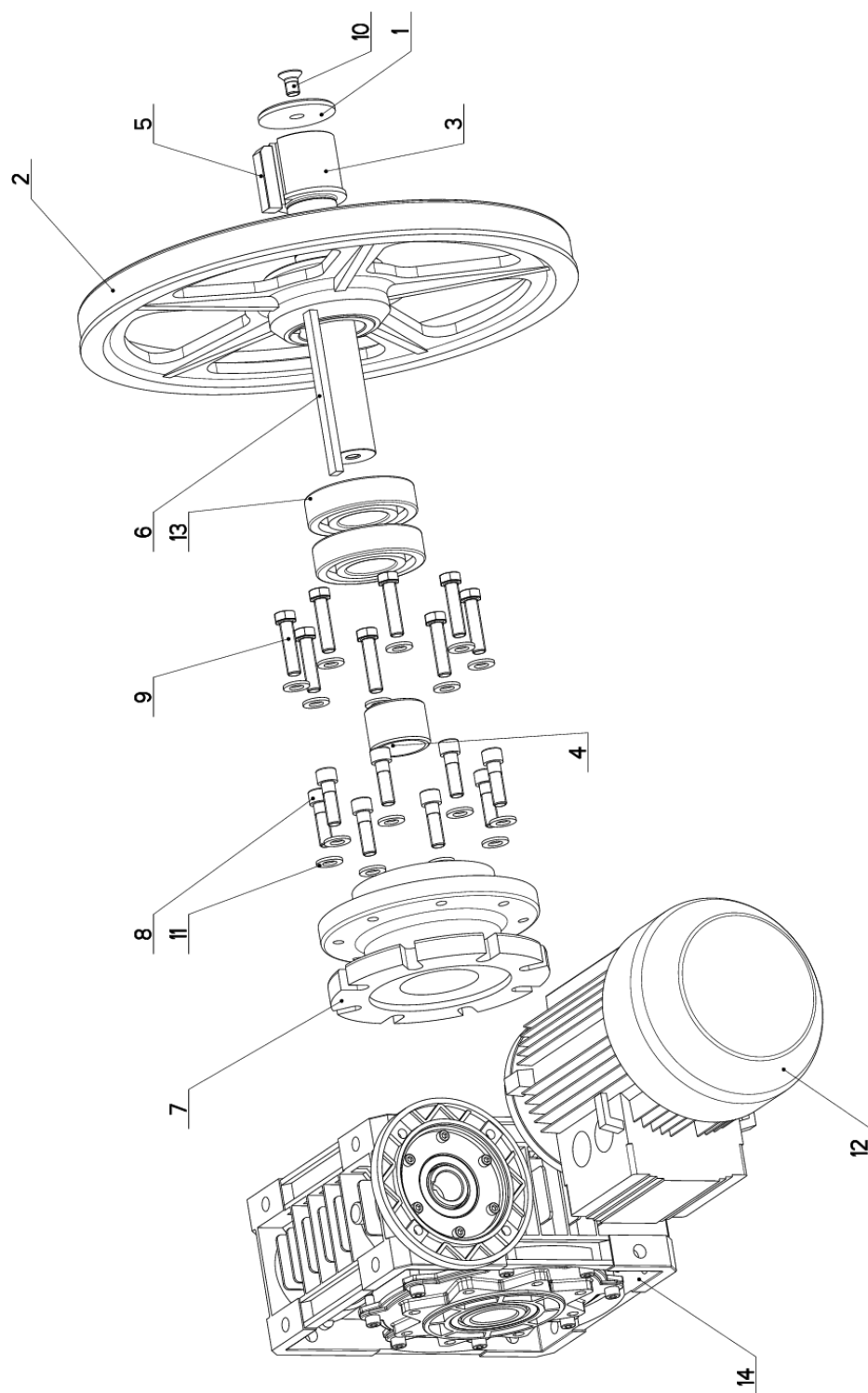
Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Nazev sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Nazev položky/Volume title/Name der Position; Rozmer/Stock size/Abmessung

7.5.21. Vedení / Guide / Backenführung

Císlo Sestavy 201.Y304-010		Ver. 0	Název sestavy VEDENÍ / GUIDE / BACKENFÜHRUNG		
Poz.	Objednáací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y304-011	0	DRŽÁK / HOLDER / HALTER	P3 - 100	1
2	90.001.25.016	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x12	2
3	90.011.27.024	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M5x20	2
4	90.100.55.003	0	MATICE DIN 934 / NUT / MUTTER	MATICE - M5	2
5	90.163.00.006	0	DISTANC / DISTANCE / DISTANZ	TR 10/5,3	2
6	94.101.029	0	ZATKA / PLUG / STOPFEN	PRO IMBUS M8	6



7.5.22. Pohon / Drive / Antrieb



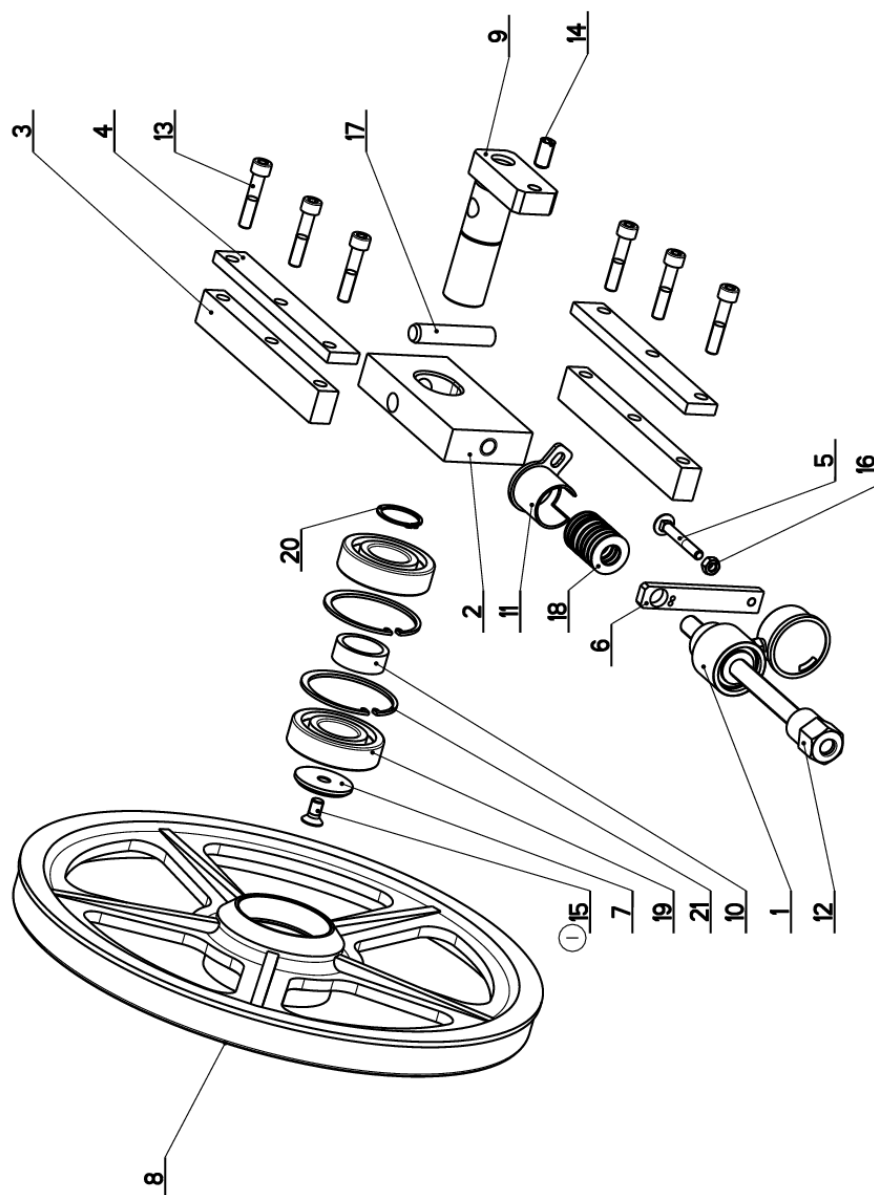
NAZEV SESTAVY POHON	CÍSLO SESTAVY 201.Y305-100	STROJ IN360
Konstruoval: MUSIL		
Datum: 27. 03.2013		
Meritko: 3:10		

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

Číslo Sestavy 201.Y305-100		Ver. 0	Název sestavy POHON/DRIVE / ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1804-010	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 70	1
2	30.2904-003	3	KOLO HNACÍ / DRIVE WHEEL / ANTRIEBSRAD	ODLITEK	1
3	30.2904-004	2	HRDEL / SHAFT / WELLE	d 65	1
4	30.2904-005	0	DISTANC / DISTANCE / DISTANZ	TR 55x8	1
5	30.2904-006	0	PERO / SPRING / FEDER	HR 14x14	1
6	30.2904-008	0	PERO / SPRING / FEDER	HR 12x8	1
7	30.4405-052	0	PŘÍRUBA / FLANGE / FLANSCH	ODLITEK	1
8	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	8
9	90.005.55.045	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M12X50	8
10	90.011.27.009	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M12X20	1
11	90.150.50.007	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 13	16
12	91.001.053	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	MDERA 100-32pro	1
13	95.001.027	0	LOŽISKO / BEARING / LAGER	6309 2RS	2
14	99.002.040	0	PRŮVODOVKA SNEKOVÁ / WORM GEAR TRANSMISSION / SCHNECKENGETRIEBE	MU110 P100 B14	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

7.5.24. Napínání / Tensioning / Spannung



NAZEV SESTAVY NAPÍNÁNÍ	CÍSLO SESTAVY 201.Y308-000	STROJ TIN 360
Konstruoval: MUSIL		
Datum: 25. 06.2012		
Meritko: 3:10		

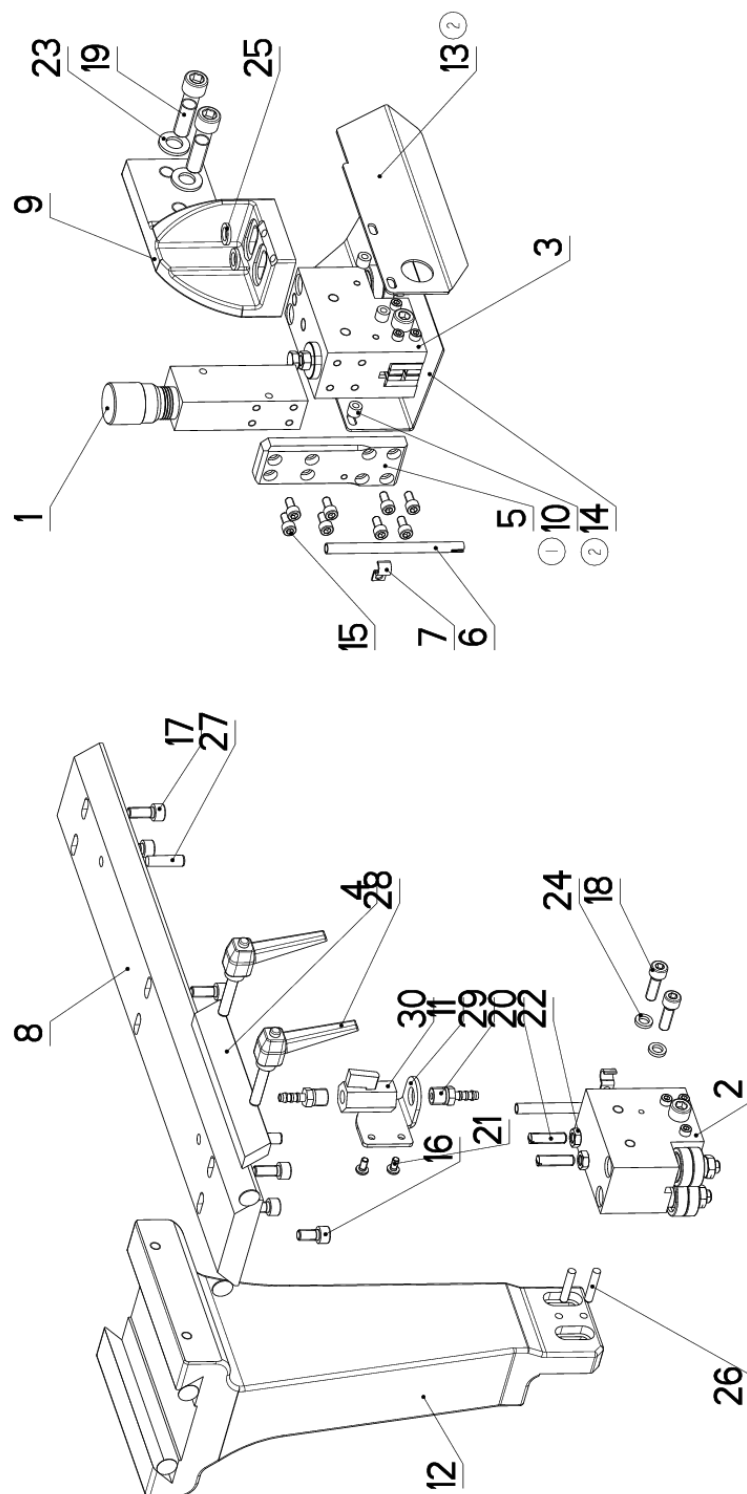
7.5.25. Kusovník / Piece list / Stückliste -
Napínání / Tensioning / Spannung

Císlo Sestavy 201.Y308-000		Ver. I	Název sestavy NAPÍNÁNÍ/TENSIONING/SPANNUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	202.2912-100	I	INDIKATOR NAPÍNÁNÍ / POWER INDICATOR / SPANNUNGSINDIKATOR	SESTAVA	I
2	30.0808-001	I	KOSTKA NAPÍNÁNÍ / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL	80x30	I
3	30.0808-002	I	LISTA VODÍČÍ / LEAD TRIM / FÜHRUNGSEIESTE	30x20	2
4	30.0808-006	I	LISTA / TRIM / LEISTE	HR 30x10	2
5	30.0808-007	0	SROUB / BOLT / SCHRAUBE	M8x60	I
6	30.1708-004	4	DRŽÁK / HOLDER / HALTER	HR 20x8	I
7	30.2908-001	I	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	d 50	I
8	30.2908-103	2	KOLO NAPÍNÁNÍ / TENSIONING WHEEL / UMLENKRAD	ODLITEK	I
9	30.4808-101	4	CEP NAPÍNÁNÍ / TENSIONING LUG / SPANNUNGSBOLZEN		I
10	30.4808-103	I	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	d 45	I
11	30.6908-102	I	DRŽÁK / HOLDER / HALTER		I
12	30.Y308-001	0	SROUB NAPÍNÁNÍ / TENSION BOLT / SCHRAUBE BANDSPANNUNG		I
13	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x50	6
14	90.002.20.013	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x25	I
15	90.011.27.008 (1)	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	I
16	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE - M8	I
17	90.300.07.003	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 16x80	I
18	90.350.02.002	0	TALÍROVÁ PRUŽINA / DISC SPRING / TELLERFEDER	35,5x18,3x2,0x2,8	9
19	95.001.026	0	LOŽISKO / BEARING / LAGER	6307 2RS	2
20	95.800.014	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 35	I
21	95.801.013	0	SEGR DÍRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 80	2

I.ZRUS.SROUB M12x20(90.011.27.009) A NAHR.M10x20(90.011.27.008). 110/ZM212 25.6.2012 SLEZACKOVA

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; Rožmer/Stock size/Abmessung

7.5.26. Vedení pásu / Belt guide / Sägebandführung



NAZEV SESTAVY VEDENÍ PÁSU	CÍSLO SESTAVY 201.Y310-000	STROJ IN360DGH
Konstruoval: MUSIL		
Datum: 23. 05.2014		
Meritko: 33:100		

7.5.27. Kusovník / Piece list / Stückliste -
Vedení pásu / Belt guide / Sägebandführung

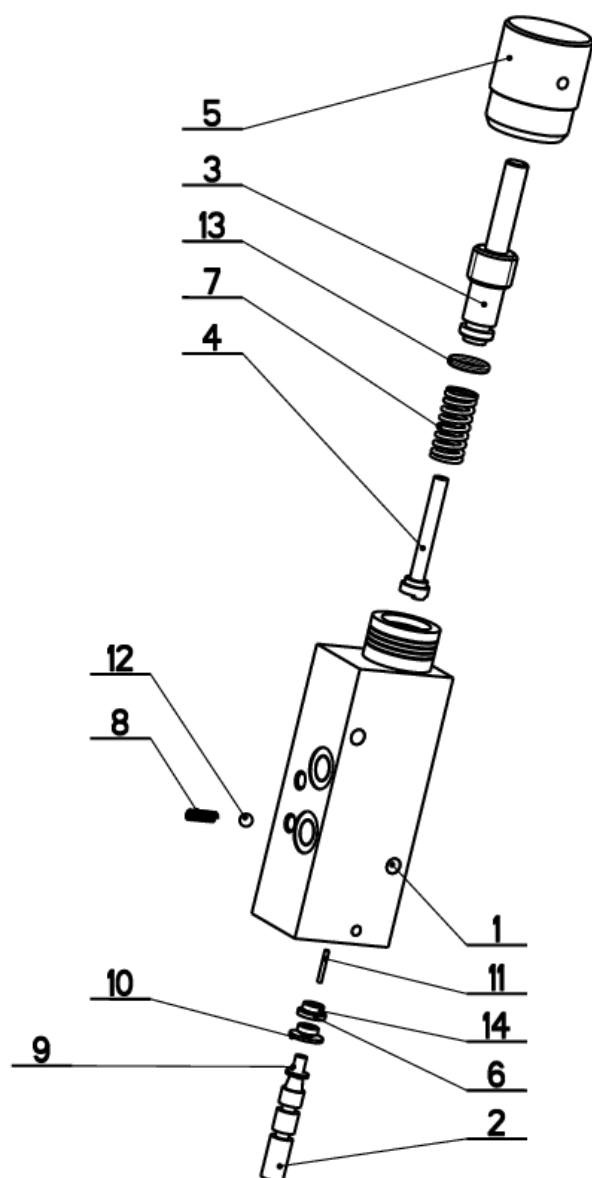
Císlo Sestavy 201.Y310-000		Ver. 2	Název sestavy VEDENÍ PASU/BELT GUIDE/SÄGEBANDFÜHRUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.2016-000	0	REGULACE PŘÍTLAKU / PRESSURE REGULATION / SCHNITTDRUCKREGULATION		1
2	201.Y310-300	1	KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ		1
3	201.Y310-400	1	KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ		1
4	30.0810-011	0	LISTA TŘECÍ / FRICTION TRIM / FRIKTIONSLEISTE	HR 30x10	1
5	30.2016-006	0	DESKA / BOARD / PLATTE	HR 40x12	1
6	30.3510-004	0	TRUBKA / TUBE / ROHR	TR 8x 1	2
7	30.9010-003	0	DRŽÁK / HOLDER / HALTER	PL 5x10	2
8	30.9210-002	3	LISTA VODICÍ / LEAD TRIM / FÜHRUNGSLISTE	HR 90x20	1
9	30.Y310-003	1	DRŽÁK / HOLDER / HALTER		1
10	30.Y310-007 (1)	0	KROUZEK / RING / RING	TR 10x2,5	4
11	30.Y310-008	0	DRŽÁK / HOLDER / HALTER	P3-50	1
12	30.Y310-104	0	KONZOLA / CONSOLE / KONSOLE		1
13	30.Y310-106 (2)	0	KRYT PASU / BELT COVER / BANDABDECKUNG	P 2x96	1
14	30.Y310-108 (2)	0	KRYT PASU / BELT COVER / BANDABDECKUNG	P 2x96	1
15	90.001.25.016	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x12	8
16	90.001.25.031	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	1
17	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	6
18	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	2
19	90.001.25.061	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x45	2
20	90.002.20.022	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8x30	2
21	90.013.27.003	0	SROUB / BOLT / SCHRAUBE	M5x10	2
22	90.101.55.001	0	MATICE / NUT / MÜTTER	MATICE M8	2
23	90.150.50.007	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	PODLOŽKA 13	2
24	90.163.00.001	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	M8 NORD-LOCK	2
25	90.163.00.004	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	2
26	90.300.07.006	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 6x32	2
27	90.302.07.002	0	KUŽEL. KOLÍK S ZAV. / TAPER PIN + THREAD / KEGELBOLZEN + GEWINDE	KOLÍK 8x30	2
28	94.008.003	0	PAKA UPÍNACÍ / ATTACHMENT LEVER / SPANNHEBEL	M8x40	2
29	94.202.002	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	REDUKCE 6/11/4"	2
30	99.260.003	0	VENTIL / VALVE / VENTIL	1/4"	1

1. PRIDAN KRYT 30.Y410-006,30.Y410-008,KROUZEK 30.Y310-007. 156/ZM189 21.9.2009 SLEZACKOVA

2.ZRUSEN KRYT PASU 30.Y410-006 A NAHR.30.Y310-106,ZRUS.KRYT PASU 30.Y410-008 A NAHR.30.Y310-108. 065/ZM114 23.5.2014 SLEZACKOVA

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

7.5.28. Regulace přítlaku / Pressure regulation / Schnittdruckregulation



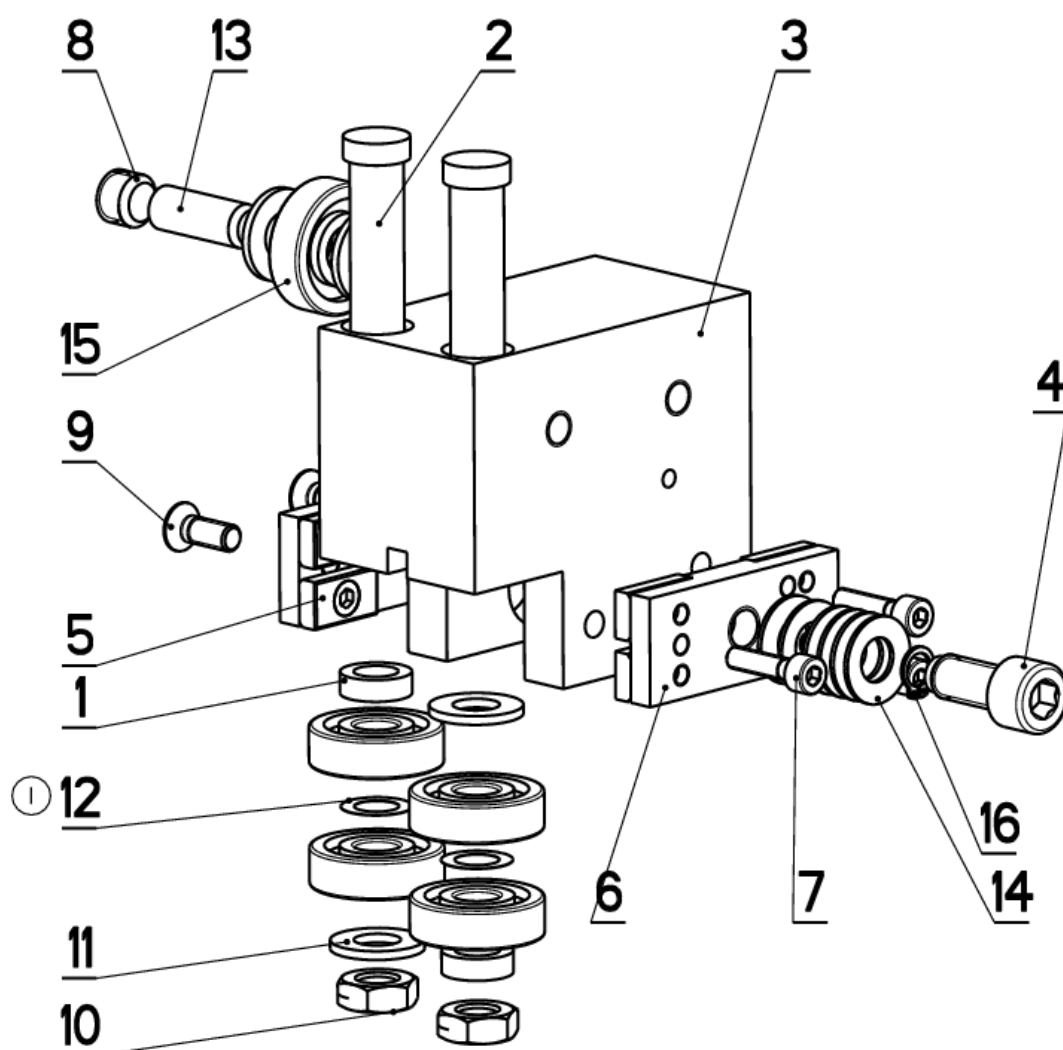
NAZEV SESTAVY REGULACE PRITLAKU	CISLO SESTAVY 001.2016-000	STROJ STG340DGS
	Konstruoval: &konstruoval	
	Datum: 19. 02.2010	
	Meritko: 1:2	

7.5.29. Kusovník / Piece list / Stückliste -
Regulace přítlaku / Pressure regulation / Schnittdruckregulation

Číslo Sestavy 201.2016-000		Ver. 0	Název sestavy REGULACE PŘÍTLAKU/PRESSURE REGULATION/SCHNITTD RUCKREGULATION		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2016-001	2	TELESO / BODY / KÖRPER	HR 40 x 40	1
2	30.2016-002	0	JEHLA / NEEDLE / NADEL	KR 8	1
3	30.2016-003	0	SROUB / BOLT / SCHRAUBE	d 16	1
4	30.2016-004	0	ČIDLO / SENSOR / SENSOR	d 10	1
5	30.2016-005	0	KOLEČKO / WHEEL / ROLLE	d 32	1
6	30.2016-009	0	KROUZEK / RING / RING	TR 10x1	1
7	31.2016-007	0	PRUŽINA / SPRING / FEDER	d 11.6x1.6	1
8	31.2016-008	0	PRUŽINA / SPRING / FEDER	0.25x3.6x12x9.5	1
9	90.099.002	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	4x6	1
10	90.151.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	PODLOŽKA 4	1
11	95.690.001	0	JEHLA / NEEDLE / NADEL	1.5x11.8	1
12	95.691.001	0	KULICKÁ LOŽISKA / BALL / KUGEL	RB 4.5	1
13	96.001.003	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	8x2	1
14	96.002.001	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	4x2	2

Číslo 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

7.5.30. Kostka vodící / Lead cube / Führungsklotz



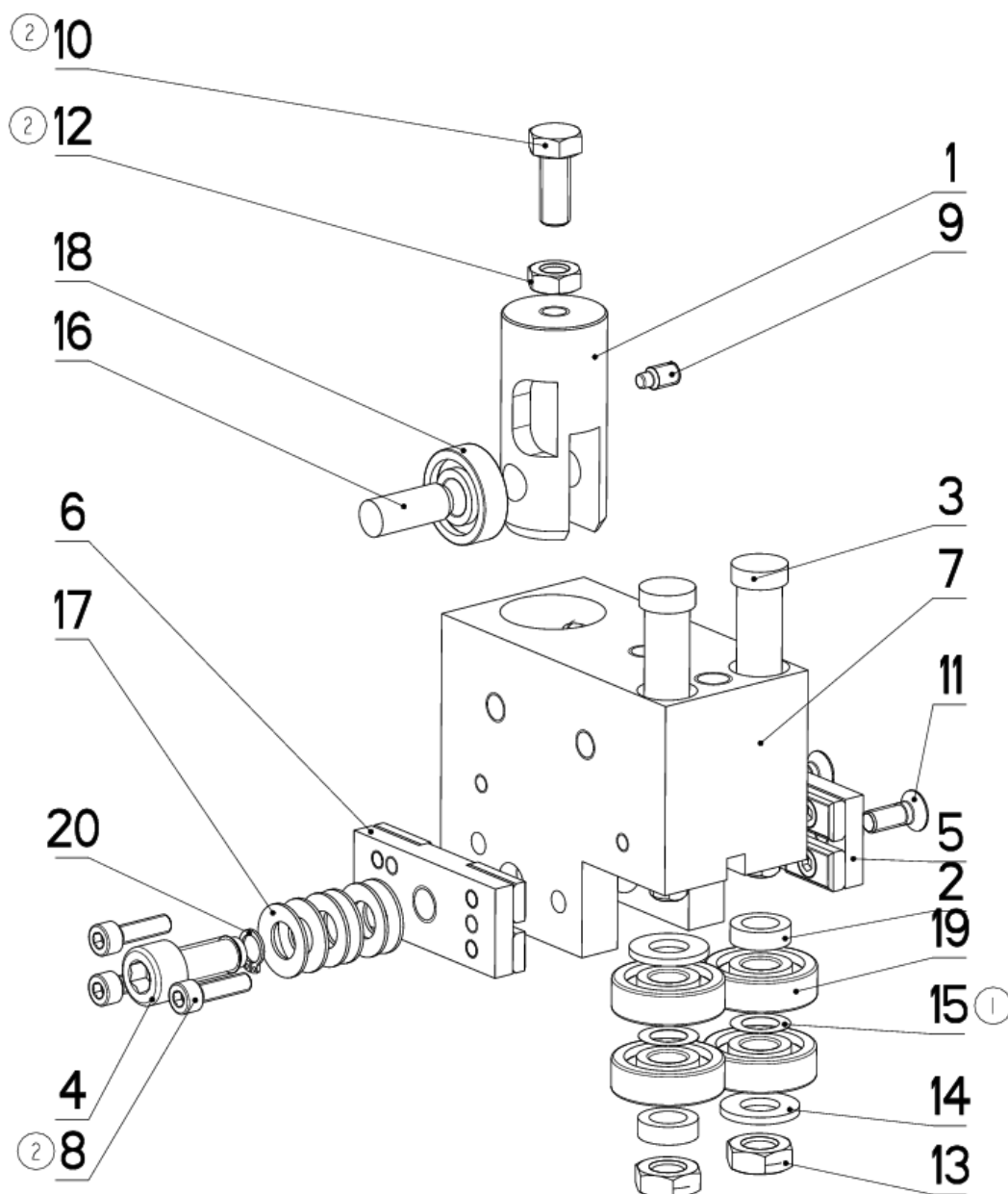
NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.Y310-300	STROJ IND360
	Konstruoval: HLADIL	
	Datum: 01. 11. 2010	
	Meritko: 4:5	

7.5.31. Kusovník / Piece list / Stückliste -
Kostka vodící / Lead cube / Führungsklotz

Číslo Sestavy 201.Y310-300		Ver. I	Název sestavy KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.C210-403	I	DISTANC / DISTANCE / DISTANZ	TR 16x3	2
2	30.Y310-212	0	EXCENTR / CAM / EXCENTER	d 15	2
3	30.Y310-301	I	KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ	HR 80x50	I
4	30.Y310-306	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x25	I
5	30.Y310-310	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		I
6	30.Y310-320	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		I
7	90.001.25.010	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x20	3
8	90.002.20.016	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x10	I
9	90.011.27.017	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6x16	2
10	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	2
11	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 10,5	4
12	90.154.50.001	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	10x16x0,1	2
13	90.301.02.001	0	KOLÍK VALCOVÝ / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLÍK 10x28	I
14	90.350.02.005	0	PRUŽINA TALÍŘOVÁ / DISC SPRING / TELLERFEDER	20x10,2x1	6
15	95.001.014	0	LOŽISKO / BEARING / LAGER	6200 2RS	5
16	95.800.002	0	KROUZEK POJIST.VNEJŠÍ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 8	I

I. PRIDANA PODLOŽKA 90.154.50.001. 277/ZM294 I.II.2010 SLEZACKOVA

7.5.32. Kostka vodící / Lead cube / Führungsklotz



NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.Y310-400	STROJ IN360
	Konstruoval: HLADIL	
	Datum: 05. 02.2016	
	Meritko: 7:10	

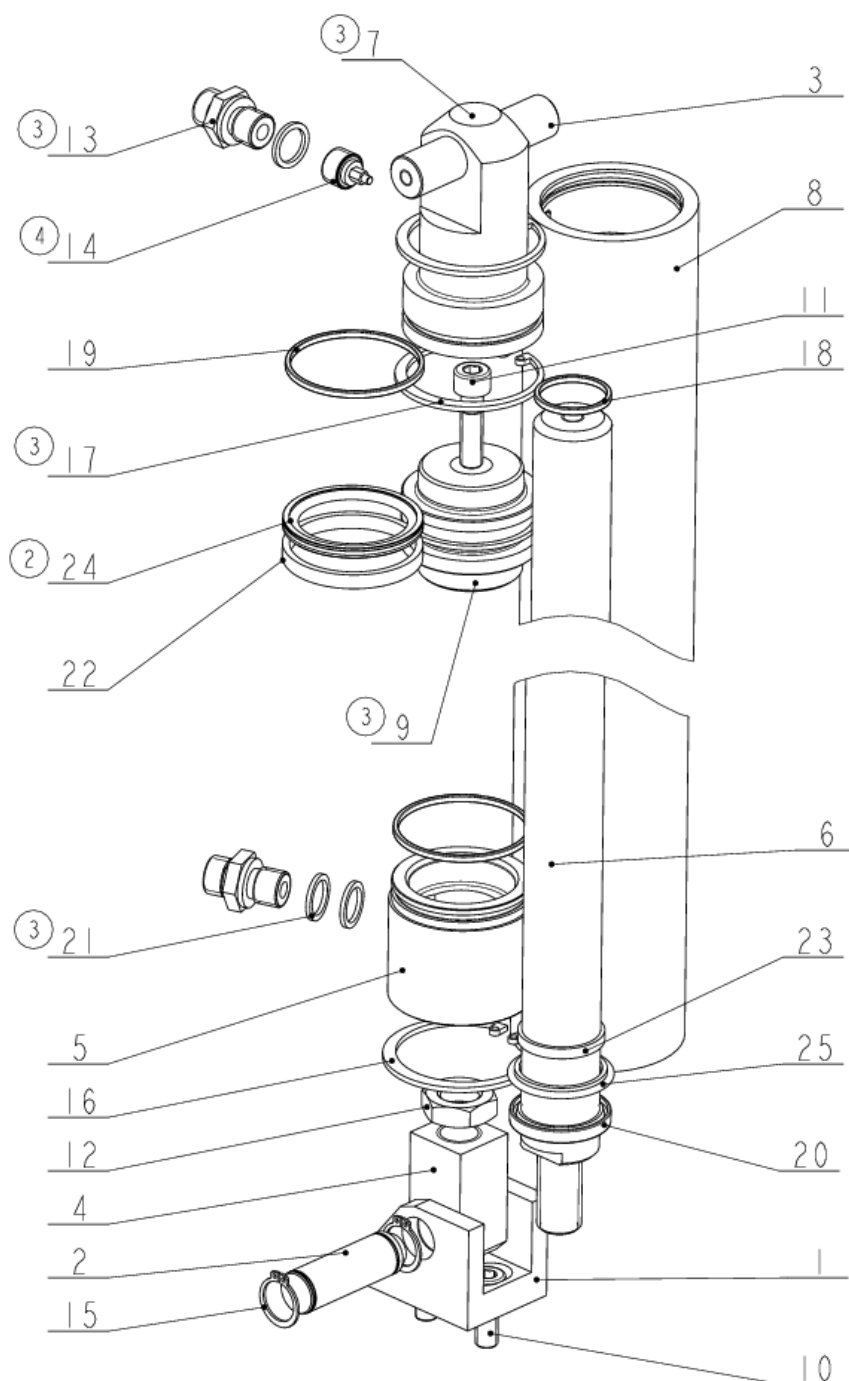
7.5.33. Kusovník / Piece list / Stückliste -
Kostka vodící / Lead cube / Führungsklotz

Číslo Sestavy 201.Y310-400		Ver. 2	Název sestavy KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1810-102	3	DRŽÁK / HOLDER / HALTER	TYC 28	1
2	30.0210-403	1	DISTANC / DISTANCE / DISTANZ	TR 16x3	2
3	30.Y310-212	2	EXCENTR / CAM / EXZENTER	d 15	2
4	30.Y310-306	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x25	1
5	30.Y310-310	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
6	30.Y310-320	0	DRŽÁK TVRDOKOVU / POA HOLDER / HW-HALTER		1
7	30.Y310-401	4	KOSTKA VODICÍ / LEAD CUBE / FÜHRUNGSKLOTZ	HR 80x50	1
8	90.001.25.143	2	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x18	3
9	90.004.20.002	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6x12	1
10	90.005.55.015	2	SROUB BÍRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x20	1
11	90.011.27.017	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6x16	2
12	90.101.55.001	2	MATICE / NUT / MUTTER	MATICE M8	1
13	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	2
14	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	2
15	90.154.50.001	1	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	10x16x0,1	2
16	90.301.07.009	0	KOLÍK VALCOVÝ / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLÍK 10x26	1
17	90.350.07.005	0	PRUŽINA TALÍŘOVÁ / DISC SPRING / TELLERFEDER	20x10.2x1	6
18	95.001.004	0	LOŽISKO / BEARING / LAGER	6000 2RS	1
19	95.001.014	0	LOŽISKO / BEARING / LAGER	6200 2RS	4
20	95.800.002	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 8	1

1. PRIDANA PODLOŽKA 90.154.50.001 .277/ZM294 1.11.2010 SLEZACKOVA
2. ZRUS.SROUB M8x30(90.005.55.017) A NAHR.M8x20(90.005.55.015),ZRUS.MATICE M8(90.100.55.005) A NAHR.MATICE M8(90.101.55.001),ZRUS.SROUB M5x20(90.001.25.010) A NAHR.M8x18(90.001.25.143).
021/ZM041 5.2.2016 SLEZACKOVA

Číslo 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

7.5.34. Válec zvedací / Lifting cylinder / Hebezyylinder



NAZEV SESTAVY VALEC ZVEDACI	CISLO SESTAVY 201.Y307-010	STROJ 1360
	Konstruoval: MUSIL	
	Datum: 09. 03.2011	
	Meritko: 1:2	

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

Číslo Sestavy 201.Y307-010		Ver. 4	Název sestavy VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLYNDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.0807-008	3	DRŽAK / HOLDER / HALTER	HR 40x40	1
2	30.0807-009	2	CEP / LUG / BOLZEN	d 16H9	1
3	30.8307-205	0	CEP / LUG / BOLZEN	d 16H9	1
4	30.8607-001	0	DRŽAK / HOLDER / HALTER	HR 25x25	1
5	30.C407-012	1	VÍKO / COVER / DECKEL	d 55	1
6	30.Y307-002	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 28 f8	1
7	30.Y307-003	3	VÍKO / COVER / DECKEL	d 55	1
8	30.Y307-011	4	VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLYNDER	TR 62/50	1
9	30.Y307-012	1	PIST / PISTON / KOLBEN	d 55	1
10	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	2
11	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x30	1
12	90.101.55.003	0	MATICE / NUT / MUTTER	MATICE M16	1
13	92.002.001	3	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	GES 08LR	2
14	92.151.008	4	VENTIL POJISTNÝ / SAFETY VALVE / SICHERUNGSVENTIL	VPN-H 1/4"	1
15	95.800.007	0	SEGR HRÍDEL / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 16	2
16	95.801.009	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 52	1
17	95.801.018	3	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 50	2
18	96.002.011	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	24x2	1
19	96.002.019	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	46x2 NBR 70SH	2
20	96.061.009	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	W02200280 Z201	1
21	96.082.002	3	TESNENÍ / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	3
22	96.084.001	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GP6500500-T47	1
23	96.084.006	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GR4300280-T47	1
24	96.900.013	2	TESNENÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG	PT0200500	1
25	96.900.021	0	TESNENÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG	RSK200280-46N	1

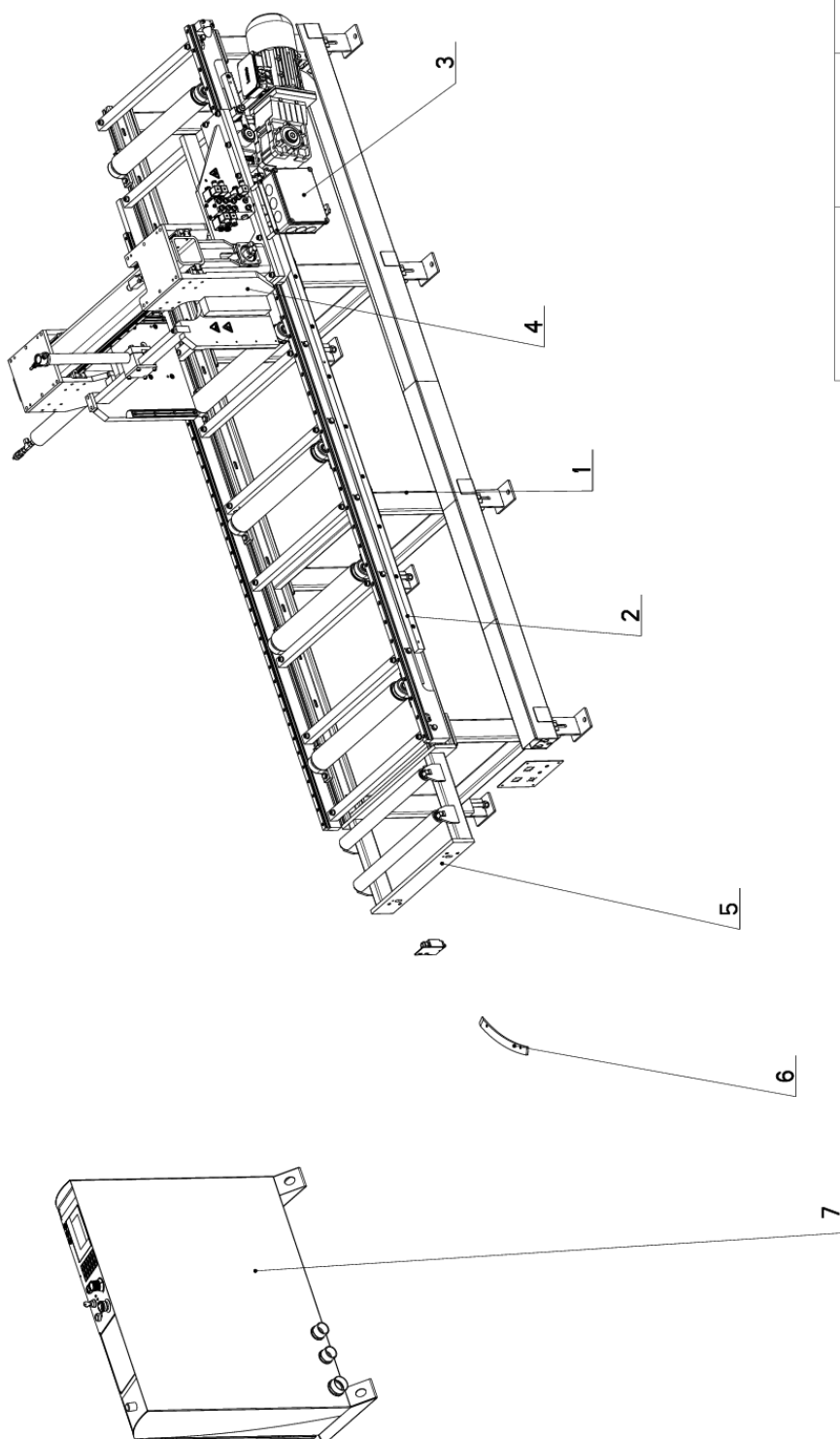
1. ZRUS.SROUBENI 92.002.005 A NAHR.92.003.001,ZRUS.SROUBENI 30.6107-510 A NAHR.30.9107-509., ZRUS.1xTESNENI 96.082.002 (ZUSTAVAJI 2ks).071/ZM097 12.4.2010 SLEZACKOVA

2. ZRUSENO TESNENI 96.900.001 A NAHR.96.900.013. 336/ZM006 10.1.2011 SLEZACKOVA

3. ZRUS.REDUKCE 30.9107-509,ZRUS.SROUBENI 30.1807-005,ZRUS.VÍKO 30.Y307-005 A NAHR.30.Y307-003,ZRUS.SROUBENI 92.003.001 A NAHR.92.002.001,ZRUS.PIST 30.LM07-504 A NAHR.30.Y307-012,ZRUS.KROUZEK 95.801.009 A NAHR.95.801.018. 026/ZM027 24.2.2011 SLEZACKOVA

4. VENTIL 92.151.001 PRECISLOVAN NA 92.151.008. 222/ZM211 29.7.2013 SLEZACKOVA

7.6. Podavač/ Feeder/ Vorschub



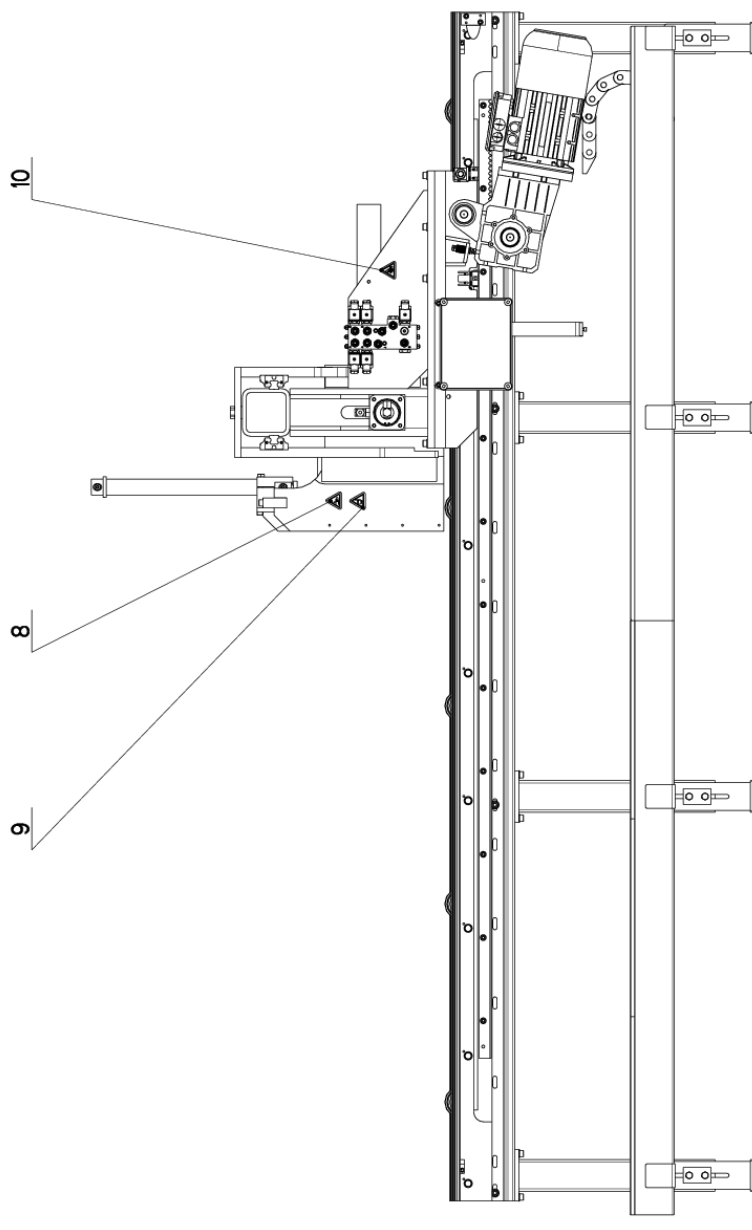
NAZEV SESTAVY PODAVAC	CÍSLO SESTAVY 201.XBV53-000	STROJ
	Konstruoval: HLADIL	
	Datum: 06. 10. 2014	
	Měřítko: 7:100	

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

Císlo Sestavy 201.XBV53-000		Ver. 0	Název sestavy PODAVAC/FEEDER/VORSCHUB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.XBV11-000	0	TRAT / TRACK / BAHN		1
2	201.XBV53-050	0	VEDENÍ / GUIDE / BACKENFÜHRUNG	SESTAVA	1
3	201.XBVW2-100	0	VOZÍK / CART / WAGEN	SESTAVA	1
4	201.XBV50-000	0	PODAVAC / FEEDER / VORSCHUB	SESTAVA	1
5	201.XBWA5-000	0	DÍL PŘIPOJOVACÍ / TRANSPORTER / VORSCHUB		1
6	201.XBV53-080	0	DORAZ / STOP PIECE / ANSCHLAG		1
7	201.XBV30-000	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
8	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.STLACENÍ	3
9	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2
10	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		1

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

7.8. Podavač/ Feeder/ Vorschub



NAZEV SESTAVY PODAVAC	CÍSLO SESTAVY 201.XBV53-000	STROJ
	Konstruoval: HLADIL	
	Datum: 06. 10.2014	
	Měřítko: 1:10	

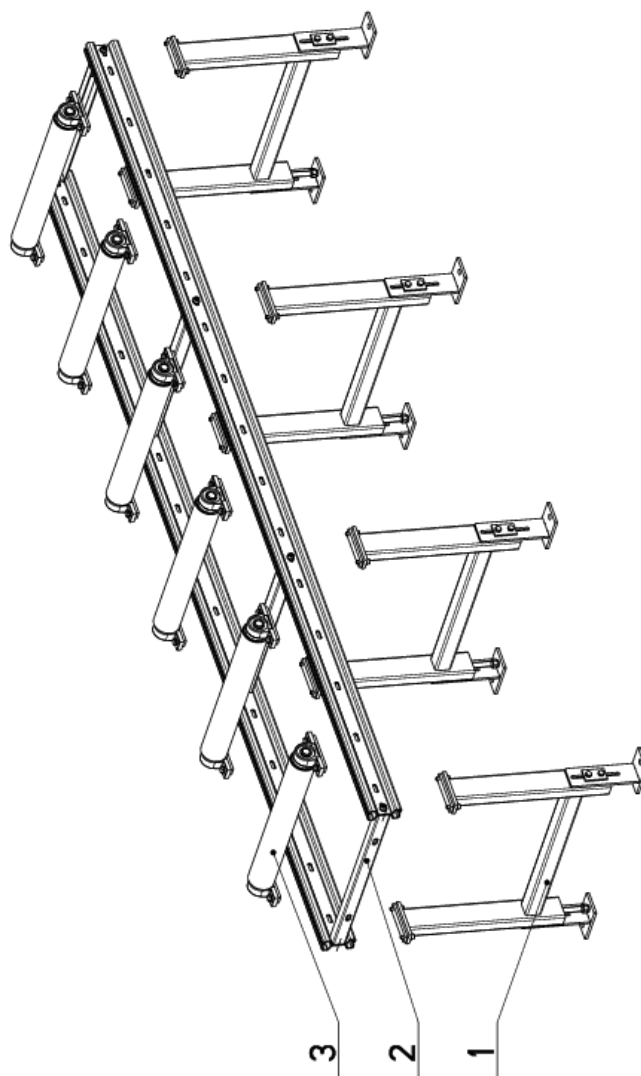
7.9. Kusovník / Piece list / Stückliste - Podavač/ Feeder/ Vorschub

Císlo Sestavy 201.XBV53-000		Ver. 0	Název sestavy PODAVAC/FEEDER/VORSCHUB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.XBV11-000	0	TRAT / TRACK / BAHN		1
2	201.XBV53-050	0	VEDENÍ / GUIDE / BACKENFÜHRUNG	SESTAVA	1
3	201.XBVW2-100	0	VOZÍK / CART / WAGEN	SESTAVA	1
4	201.XBV50-000	0	PODAVAC / FEEDER / VORSCHUB	SESTAVA	1
5	201.XBWA5-000	0	DÍL PŘIPOJOVACÍ / TRANSPORTER / VORSCHUB		1
6	201.XBV53-080	0	DORAZ / STOP PIECE / ANSCHLAG		1
7	201.XBV30-000	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
8	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.STLACENÍ	3
9	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2
10	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		1

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

7.9.1. Trať / Track / Bahn

Cislo Sestavy 201.XBVI-000		Ver. 0	Název sestavy TRAT/TRACK/BAHN			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	203.X105-100	3	NOHA DOPRAVNÍKU / FEEDER LEG / STÄNDER DES FÖRDERERS		4	
2	203.X105-300	0	RAM / FRAME / RAHMEN		1	
3	203.X105-600	0	VALEC / ROLLER / ZYLINDER		6	



7.9.2. Noha dopravníku/ Feeder leg/ Ständer des Förderers

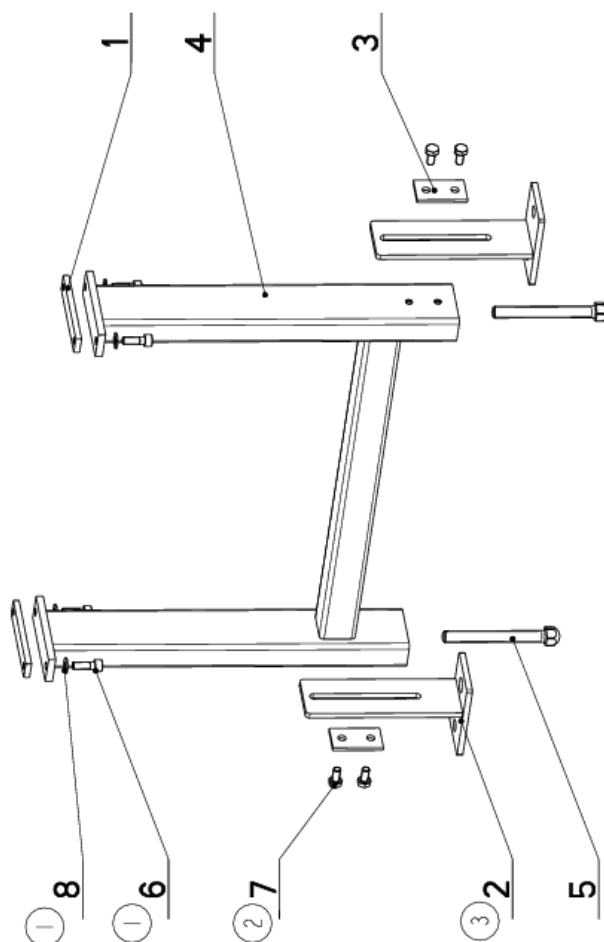
Číslo Sestavy 203.X105-100		Ver. 3	Název sestavy NOHA DOPRAVNÍKU/FEEDER LEG/STÄNDER DES FÖRDERERS		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1315-701	3	PRÍLOŽKA / STRAP / LASCHE	HR 25x8	2
2	30.1515-660 (3)	0	NOHA / LEG / STÄNDER		2
3	30.1515-681	0	PRÍLOŽKA / STRAP / LASCHE	P 5x40	2
4	30.X105-101	0	RAM / FRAME / RAHMEN		1
5	31.1514-102	0	SROUB / BOLT / SCHRAUBE	M 16	2
6	90.001.25.048 (1)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X30	4
7	90.005.55.023 (2)	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X20	4
8	90.150.50.006 (1)	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	4

1. ZRUS. SROUB M10x30 (90.005.55.025) A NAHR. SROUBEM IMBUS M10x30 (90.001.25.048), PRÍD. PODLOŽKA 10,5 (90.150.50.006).

ZRUS. SROUB M10x20(90.005.55.023) A NAHR. M10x25(90.005.55.024). 280/ZM288 25.10.2010 SLEZACKOVA

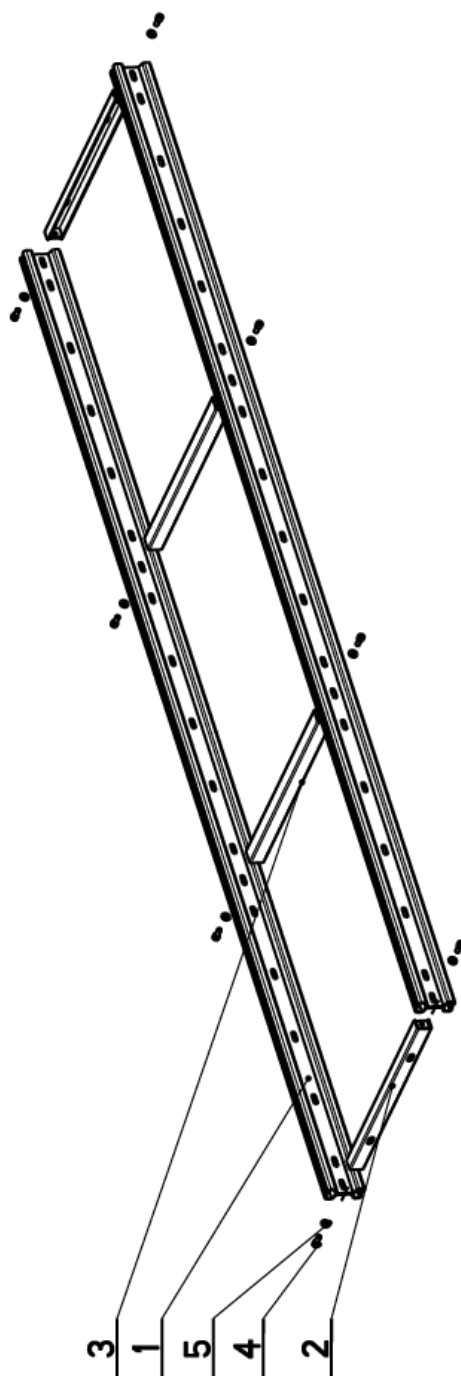
2. ZRUS. SROUB M10x25(90.005.55.024) A NAHR. M10x20(90.005.55.023). 269/ZM339 3.12.2012 SLEZACKOVA

3. ZRUS. NOHA 30.1515-690 A NAHR. 30.1515-660. 049/ZM096 14.4.2014 SLEZACKOVA



7.9.3. Rám/ Frame/ Rahmen

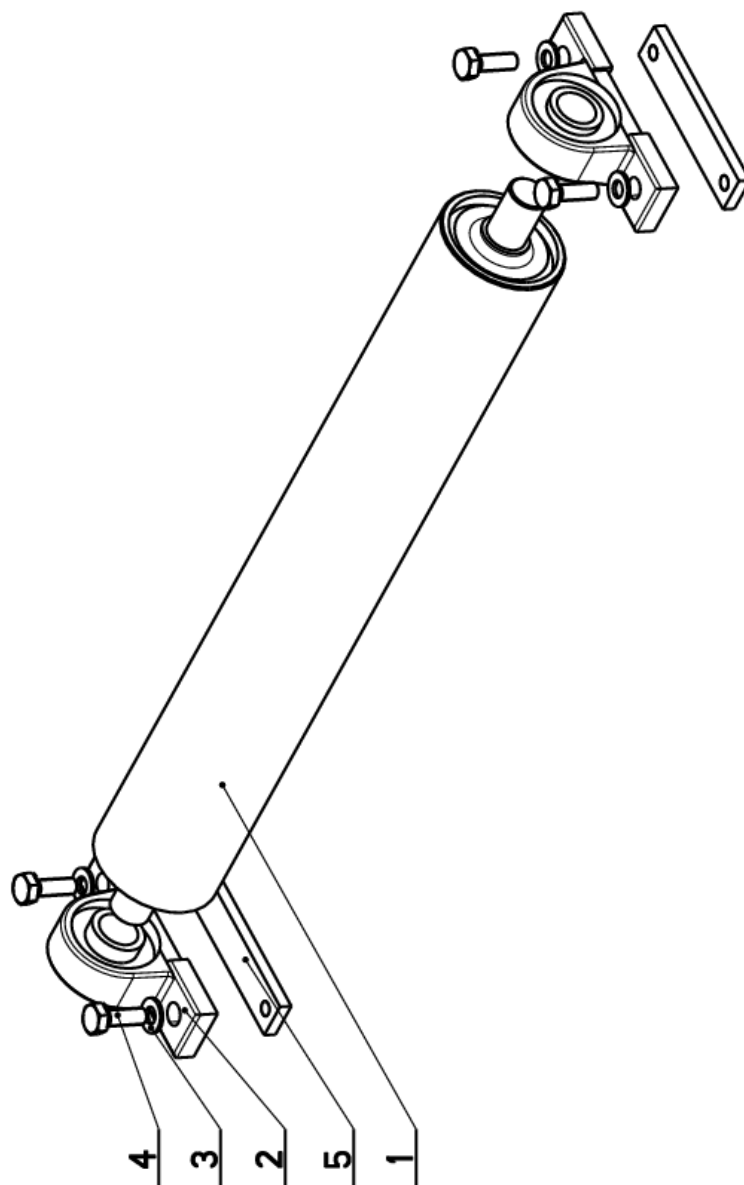
Cislo Sestavy 203.X105-300		Ver. 0	Název sestavy RÁM/FRAME/RAHMEN	
Poz.	Objednací číslo	Ver.	Název položky	Ks
1	30.X103-170	0	PROFIL / PROFILE / PROFIL	2
2	30.X105-201	0	DÍL PŘIPOJOVACÍ / ATTACHMENT PART / ANSCHLUSSTEIL	2
3	30.X105-202	0	VZPERA / PROP / STREBE	2
4	90.001.25.047	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8
5	90.163.00.011	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	8



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

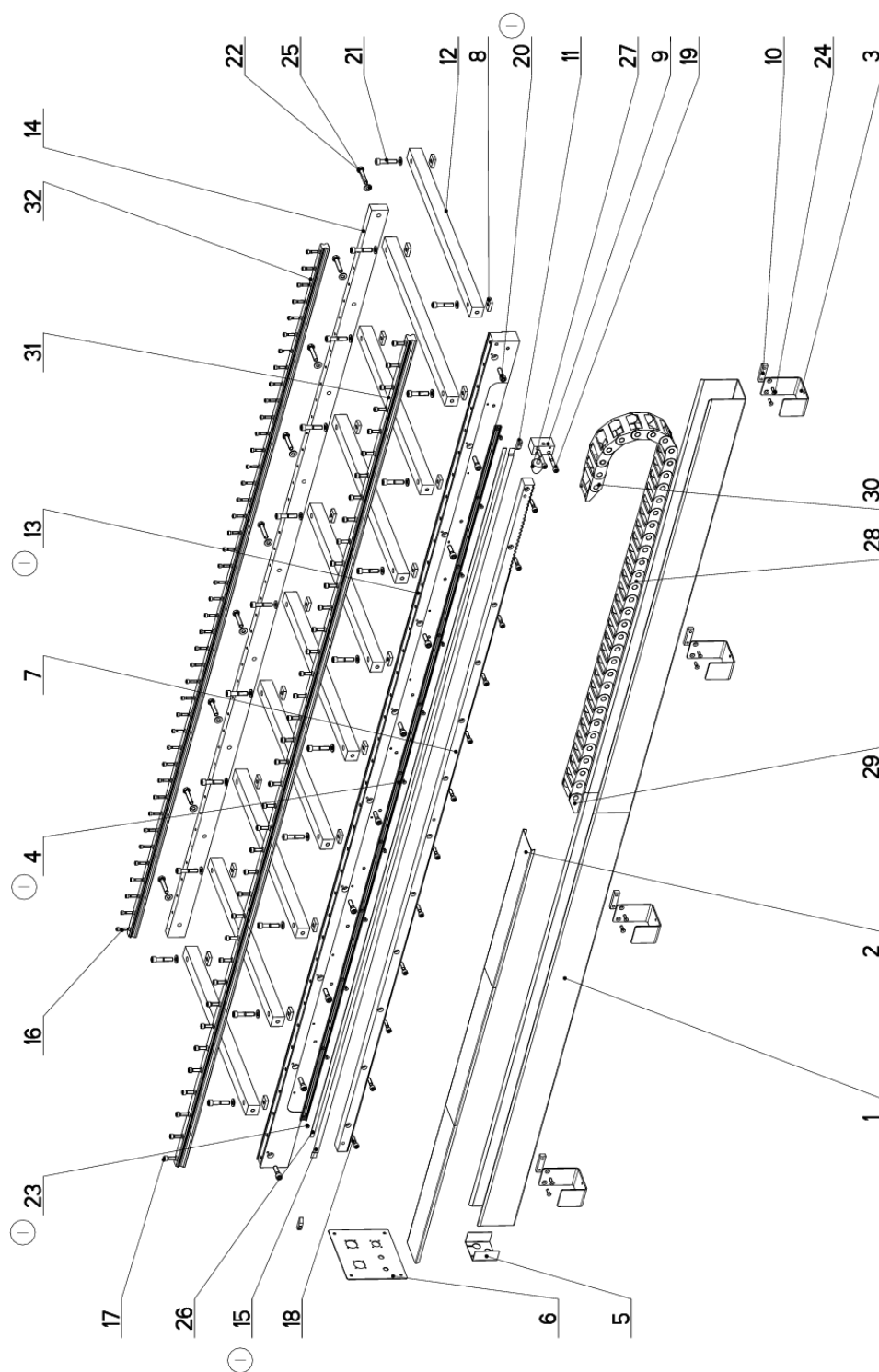
7.9.4. Válec/ Roller/ Zylinder

Cislo Sestavy 203.X105-600		Ver. 0	Nazev sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednaci cislo	Ver.	Nazev položky	Rozmer	Ks
1	30.1514-502	0	VALEC / ROLLER / ZYLINDER		1
2	95.160.001	0	LOŽISKO / BEARING / LAGER	UCP 205	2
3	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 10,5	4
4	90.401.02.002	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X30	4
5	30.X104-601	0	PRÍLOŽKA / STRAP / LASCHE	HR 25x8	2



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

7.9.5. Vedení/ Guide/ Backenführung



NAZEV SYSTAVY VEDENÍ	CÍSLO SYSTAVY 201.XBV53-050	STROJ XBV
Konstruoval: HLADIL		
Datum: 30. 06. 2017		
Měřítko: 1:10		

Vedení/ Guide/ Backenführung
Kusovník / Piece list / Stückliste

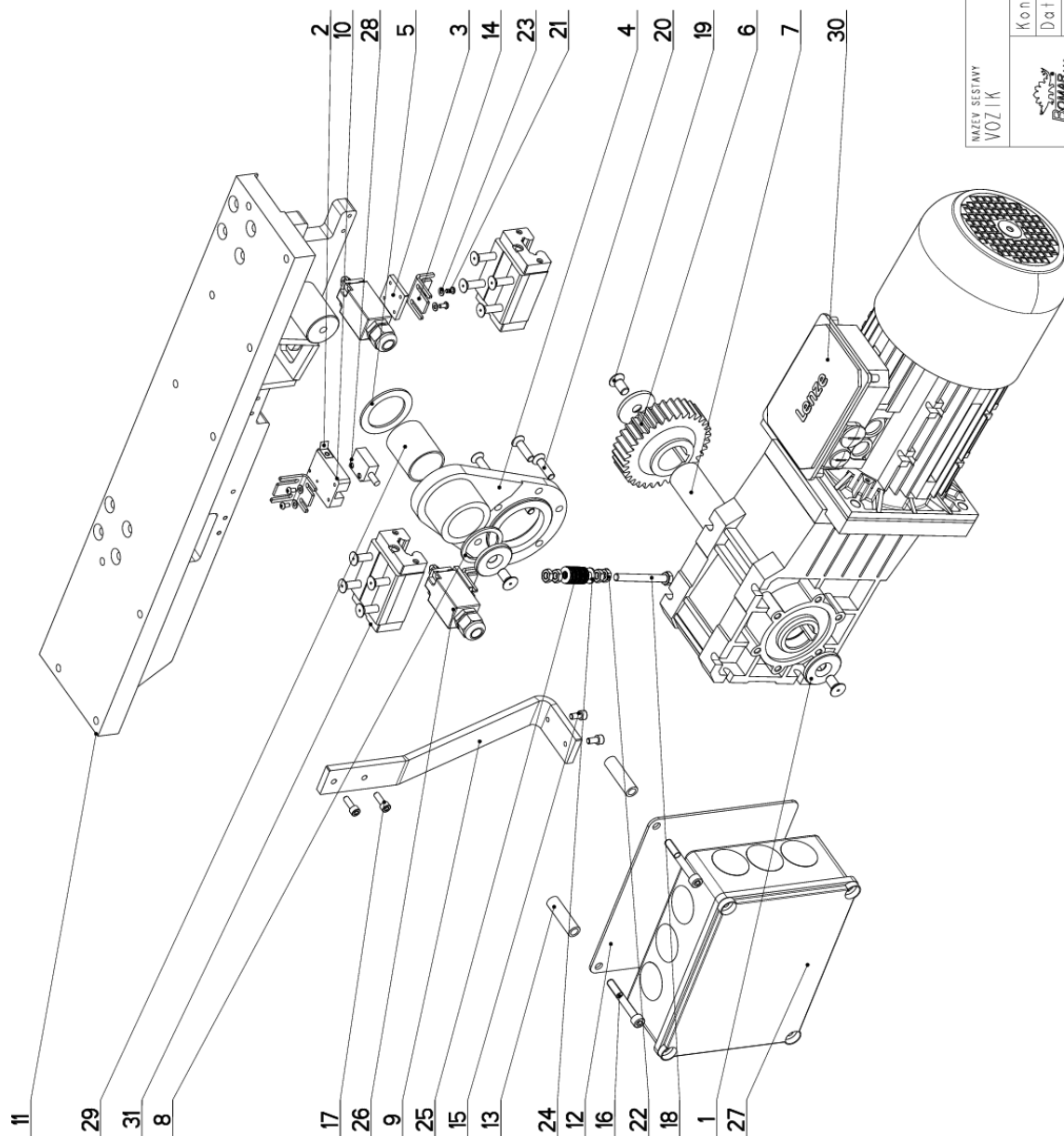
Císlo Sestavy 201.XBV53-050		Ver. 1	Název sestavy VEDENÍ/GUIDE/BACKENFÜHRUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1503-511	2	KORYTO / CHANNEL / RINNE	P 1.5x297	2
2	30.1503-515	1	VÍKO / COVER / DECKEL	P 1x109	3
3	30.1503-516	2	DRŽÁK / HOLDER / HALTER	P 3 x 60	4
4	30.2TL311-002	1	PROFIL / PROFILE / PROFIL		1
5	30.5400-501	0	VÍKO / COVER / DECKEL	P 1.5x70	1
6	30.5401-501	0	VÍKO / COVER / DECKEL	P 2x175	1
7	30.W460-002	0	HŘEBEN / COMB / KAMM	OZ.TYC30x30-3000	1
8	30.X104-602	3	PŘILOŽKA / STRAP / LASCHE	P 8x30	20
9	30.XBV44-107	0	DORAZ / STOP PIECE / ANSCHLAG	HR 60x30	1
10	30.XBV44-108	0	KOSTKA / CUBE / WÜRFEL	HR 15x10	4
11	30.XBV44-109	0	DORAZ / STOP PIECE / ANSCHLAG	HR 10x10	2
12	30.XBV53-053	0	NOSNÍK / CARRIER / TRÄGER	HR 35x35	10
13	30.XBV63-251	1	LISTA VODICÍ / LEAD TRIM / FÜHRUNGSLEISTE	HR 80x40	1
14	30.XBV63-254	0	LISTA VODICÍ / POLE / STANGE	TYC 50x25	1
15	55.800.009	1	PLECH / PLATE / BLECH	P 0,3x15	1
16	90.001.25.019	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X25	42
17	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	38
18	90.001.25.035	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X35	12
19	90.001.25.040	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X60	2
20	90.001.25.049	1	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X35	10
21	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X50	20
22	90.005.55.028	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X50	9
23	90.011.27.003	1	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M5X10	11
24	90.011.27.006	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6X20	8
25	90.163.00.011	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	NORD-LOCK	29
26	91.271.002	0	PASKA MAGNETICKÁ / MAGNETIC TAPE / MAGNETBAND	ELGO MB20.50	1
27	94.700.001	0	SILENTBLOK / SILENT BLOCK / SCHWINGUNGSDÄMPFER		1
28	99.170.012	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	MP 3002	36
29	99.171.013	0	KONCOVKA / END / ENDSTÜCK		1
30	99.171.014	0	KONCOVKA / END / ENDSTÜCK		1
31	99.200.275	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 30R 3000 20/20N	1
32	99.200.425	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 25R 2500 20/20N	1

PRID.LISTA 2TL311-002 A PLECH 55.800.009-2580 A SROUBY M5x10, SROUBY DIN933 M10x50 NAHR. DIN912 M10x35 157/ZM215 30.6.2017 CERNY

1. PRID.LISTA 2TL311-002 A PLECH 55.800.009-2580 A SROUBY M5x10, SROUBY DIN933 M10x50 NAHR. DIN912 M10x35 157/ZM215 30.6.2017 ČERNÝ

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

7.9.6. Vozík/ Cart/ Wagen



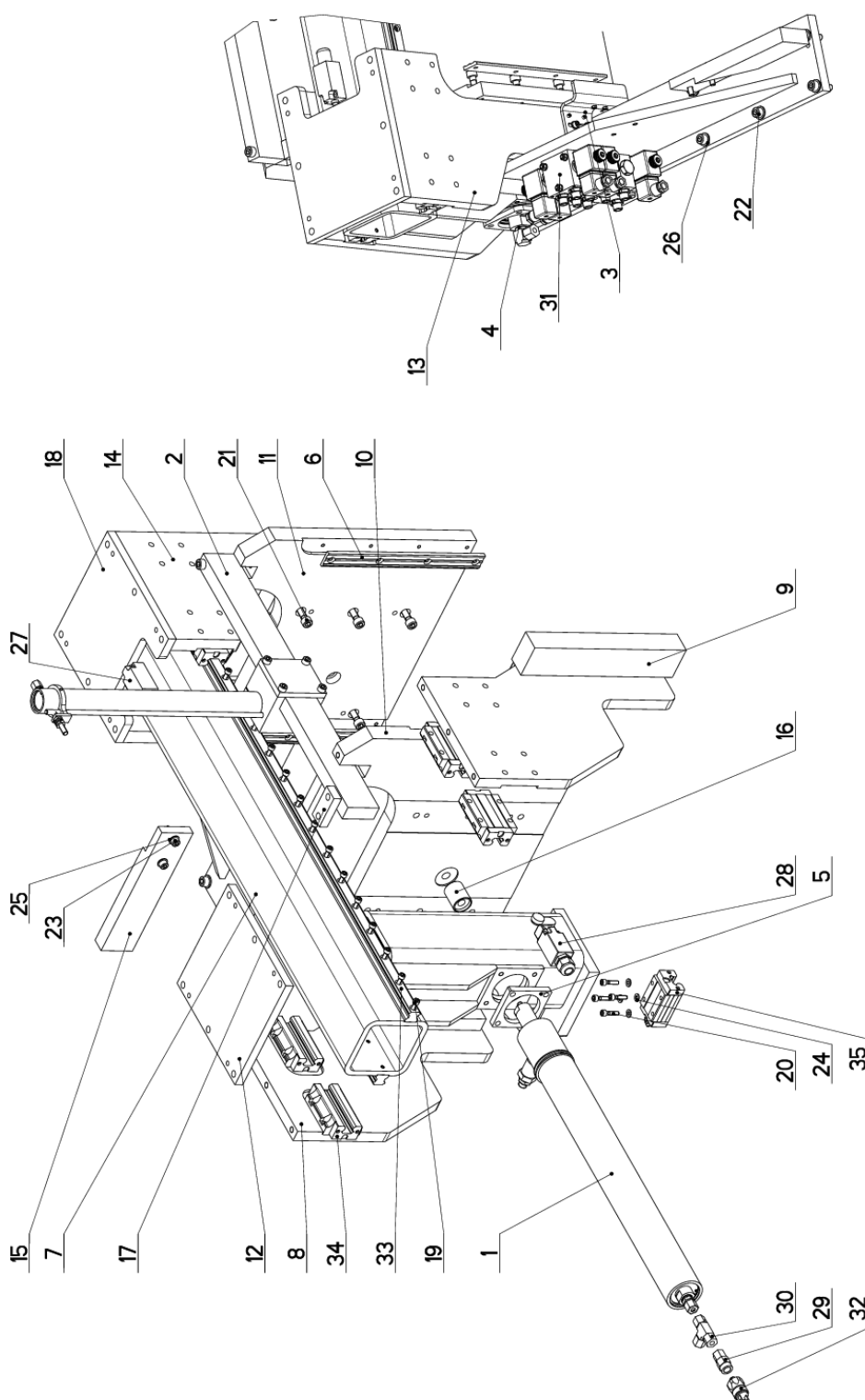
NAZEV SESTAVY VOZÍK	CÍSLO SESTAVY 201.XBWM2-100	STROJ XBV
Konstruoval: NEUMANN		
Datum: 19. 06.2014		
Měřítko: 1:4		

7.9.7. Vozík/ Cart/ Wagen
Kusovník / Piece list / Stückliste

Císlo Sestavy 201.XBWM2-100		Ver. 0	Název sestavy VOZÍK/CART/WAGEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1502-465	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 45	3
2	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0,3x11	2
3	30.X102-837	0	DESKA / BOARD / PLATTE	HR 35x35	2
4	30.XBWM1-002	0	PŘÍRUBA / FLANGE / FLANSCH		1
5	30.XBWM1-003	0	KROUZEK / RING / RING	D 63	1
6	30.XBWM1-004	0	KOLO OZUBENÉ / COG WHEEL / ZAHNRAD	m3,2 34	1
7	30.XBWM1-005	0	HRDEL / SHAFT / WELLE	D 38	1
8	30.XBWM1-006	0	KROUZEK / RING / RING	TR 50x10	1
9	30.XBWM1-008	0	DRŽÁK / HOLDER / HALTER	HR 35x8	1
10	30.XBWM1-009	0	DRŽÁK / HOLDER / HALTER	HR 15x40	1
11	30.XBWM2-101	0	TELESO / BODY / KÖRPER		1
12	30.XBWM2-102	0	PLECH / PLATE / BLECH	P 3x195	1
13	30.XBWM2-103	0	DISTANC / DISTANCE / DISTANZ	TR 14x2,5	2
14	30.XBWM2-107	0	DRŽÁK / HOLDER / HALTER	P3x35	3
15	90.001.25.016	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x12	2
16	90.001.25.040	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x60	2
17	90.001.25.076	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x18	2
18	90.005.55.044	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x70	1
19	90.011.27.008	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	3
20	90.011.27.XXX	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8x30	14
21	90.013.27.001	0	SROUB / BOLT / SCHRAUBE	M4x8	6
22	90.101.55.001	0	MATICE / NUT / MÜTTER	MATICE M8	4
23	90.150.50.002	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 4,3	6
24	90.150.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 8,4	1
25	90.350.07.003	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	18X8.2X0.9X1.25	21
26	91.173.010	0	SPINAC KONC.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	FR 615 (PIZZATO)	2
27	91.190.005	0	KRABICE ELEKTRO / ELECTRO BOX / ELEKTRODOSE	220x170x80	1
28	91.270.007	0	SNÍMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	LM1X2-026-08.0-1-01-L	1
29	95.700.007	0	POUZDRO / SLEEVE / BÜCHSE	40X50	1
30	99.001.195	0	PREVODOVKA S MOTOREM / TRANSMISSION WITH MOTOR / GETRIEBE MIT MOTOR	1,5kW; 4P;	1
31	99.201.055	0	VOZÍK LINEÁRNÍHO VEDENÍ / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA30S	2

Císlo 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

7.9.8. Podavač/ Feeder/ Vorschub



NAZEV SESTAVY PODAVAC	CÍSLO SESTAVY 201.XBV50-000	STROJ XBV650
Konstruoval: NEUMANN		
Datum: 15. 09.2014		
Měřítko: 1:100		

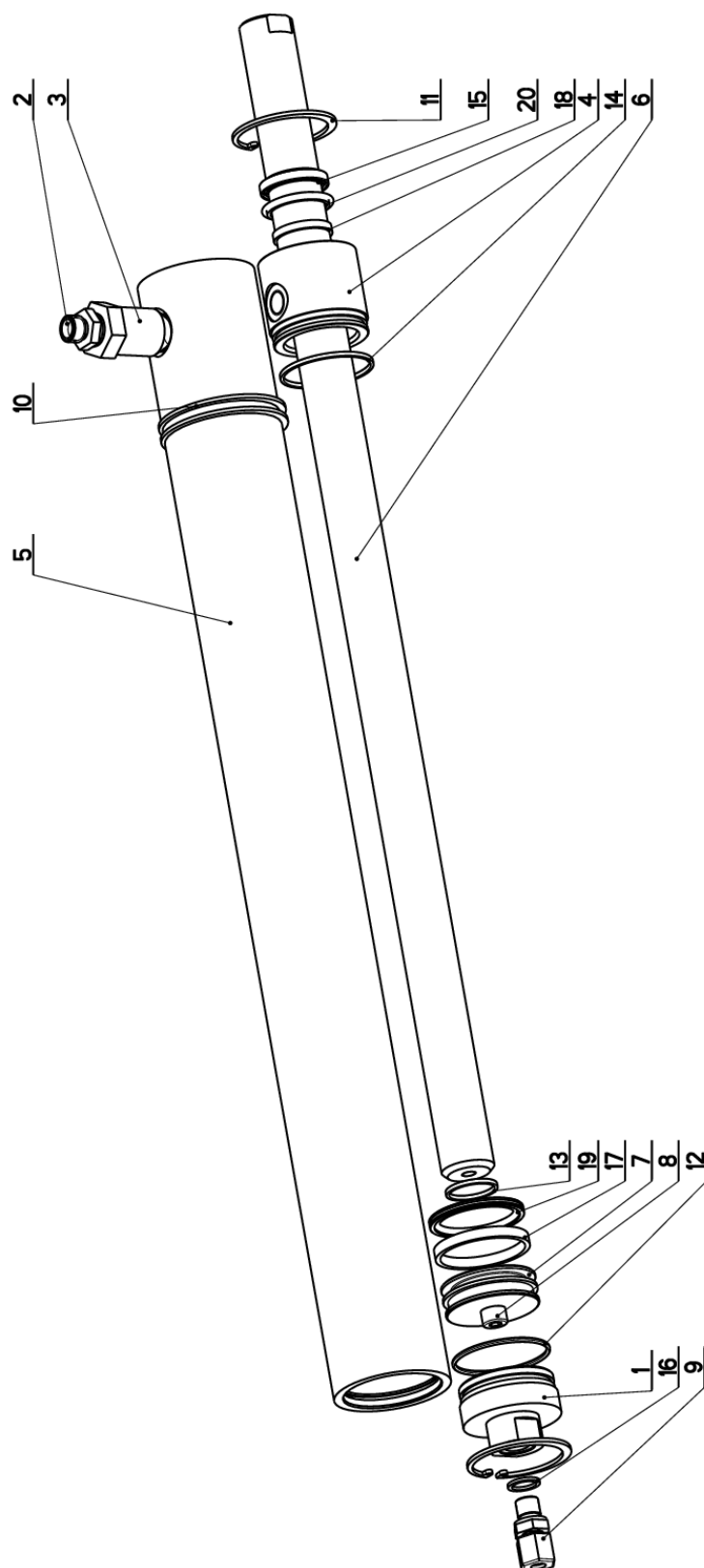
7.9.9. Kusovník / Piece list / Stückliste -
Podavač/ Feeder/ Vorschub

Císlo Sestavy 201.XBV50-000		Ver. 0	Název sestavy PODAVAC/FEEDER/VORSCHUB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.D307-120	0	VALEC SVERAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
2	201.XBV50-050	0	UPINANI HORNÍ / TOP CLAM / SPANNVORRICHTUNG OBEN		1
3	201.XBV50-060	0	ZAVORA OPTICKÁ / OPTICAL GATE / LICHTSCHRANKE		1
4	201.XBV67-020	0	VALEC SVERAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
5	30.20111-010	0	PRÍLOŽKA / STRAP / LASCHE	HR 80x10	1
6	30.D4111-235	2	LISTA CELISTI / JAW TRIM / BACKENLEISTE	HR 30x10	4
7	30.XBV50-001	0	NOSNIK / CARRIER / TRÄGER	SVARENO	1
8	30.XBV50-002	0	DESKA / BOARD / PLATTE		1
9	30.XBV50-003	0	DESKA / BOARD / PLATTE		1
10	30.XBV50-004	0	CELIST POHYBLIVÁ / MOVING JAW / BEWEGLICHE BACKE	P 30x419	1
11	30.XBV50-005	0	CELIST PEVNÁ / SOLID JAW / FESTE BACKE	P 25x419	1
12	30.XBV50-006	0	SVORNIK / HINGE PIN / KLENME	P 15x218	1
13	30.XBV50-012	0	DESKA / BOARD / PLATTE		1
14	30.XBV50-013	0	DESKA / BOARD / PLATTE		1
15	30.XBV50-052	0	TYC / POLE / STANGE	HR 60x25	1
16	30.XBV60-008	0	DISTANC / DISTANCE / DISTANZ	D 32	1
17	30.XBV60-010	0	DESKA / BOARD / PLATTE	HR 30x15	1
18	30.XBV60-016	0	SVORNIK / HINGE PIN / KLENME	P 15x228	1
19	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	38
20	90.001.25.019	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x25	4
21	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	12
22	90.001.25.049	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x35	10
23	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x30	2
24	90.150.50.004	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 6,4	4
25	90.150.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 8,4	2
26	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	10
27	91.173.007	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	-RIWK	1
28	91.173.017	0	SPINAC KONČ.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	FR 630	1
29	92.015.001	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	66353	1
30	92.018.001	0	PROPOJKA / CONNECTION / VERBINDUNGSTÜCK	P-ELVD 8L	1
31	92.153.116	0	BLOK / /	S103.306.1	1
32	92.201.003	0	SPINAC TLAKOVÝ / PRESSURE SWITCH / DRUCKSCHALTER	20-50 bar	1
33	99.200.359	0	VEDENÍ LINEÁRNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA25R 1100-10/10 N	2
34	99.201.057	0	VOZÍK LINEÁRNÍHO VEDENÍ / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA25LE SS F0 N	8
35	99.201.066	0	VOZÍK LINEÁRNÍHO VEDENÍ / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA25S	1

Císlo 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

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

7.9.10. Válec svěráku/ Vice cylinder/ Schraubstockzylinder



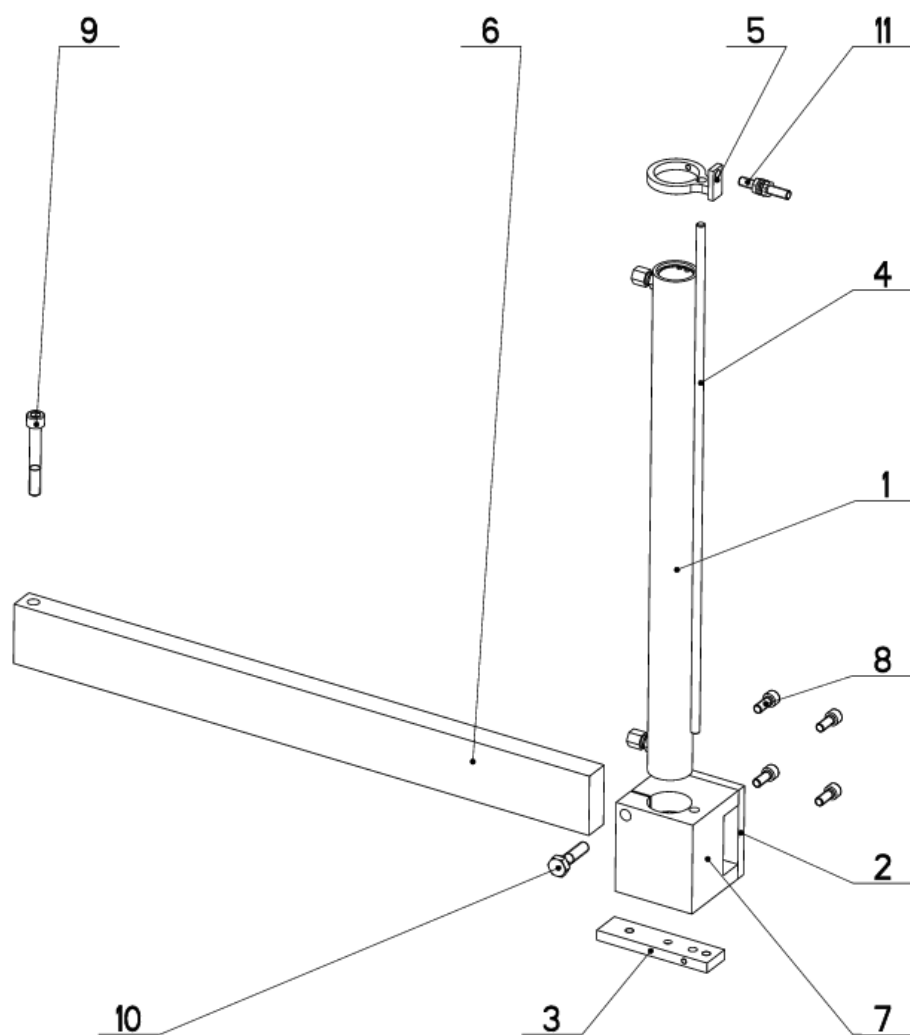
NAZEV SESTAVY VÁLEC SVĚRÁKU	ČÍSLO SESTAVY 201.D307-120	STROJ 1360
Konstruoval: HLADIL		
Datum: 15. 10.2010		
Měřítko: 1:2		

7.9.11. Kusovník / Piece list / Stückliste
Válec svěráku/ Vice cylinder/ Schraubstockzylinder

Císlo Sestavy 201.D307-120		Ver. 0	Název sestavy VALEC SVĚRAKU/VICE CYLINDER/SCHRAUBSTOCKZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2007-304	0	VÍKO / COVER / DECKEL	d 55	1
2	30.2807-109	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		1
3	30.6407-310	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	6HR 27	1
4	30.C407-012	1	VÍKO / COVER / DECKEL	d 55	1
5	30.D307-121	0	VALEC / ROLLER / ZYLINDER	TR 62/50	1
6	30.D307-124	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 28 f8	1
7	30.7307-035	0	PIST / PISTON / KOLBEN	d 55	1
8	90.001.25.032	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	1
9	92.002.101	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		1
10	95.800.021	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNY KROUZEK 62	2
11	95.801.009	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 52	2
12	96.001.013	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	45x2	1
13	96.002.011	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	24x2	1
14	96.002.019	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	46x2	1
15	96.061.009	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	WD2200280	1
16	96.082.002	0	TESNĚNÍ / SEALING / DICHTUNG	KROUZEK CU 13/17	3
17	96.084.001	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500500-T47	1
18	96.084.006	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GR4300280-T47	1
19	96.900.001	0	TESNĚNÍ KOMBINOVANE / COMBINATION SEALING / KOMBIDICHTUNG		1
20	96.900.021	0	TESNĚNÍ KOMBINOVANE / COMBINATION SEALING / KOMBIDICHTUNG	RSK200280	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

7.9.12. Upínání horní/ Top clamp/ Spannvorrichtung oben



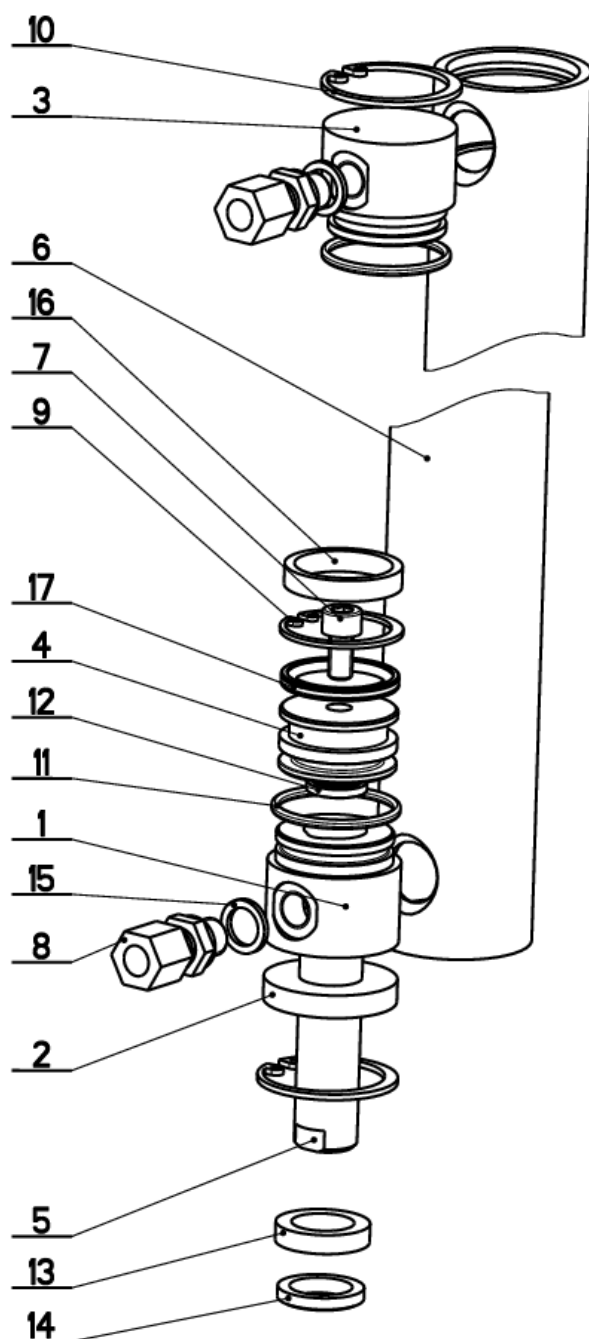
NAZEV SESTAVY UPINANI HORNI	CISLO SESTAVY 201.XBV50-050	STROJ XBV
	Konstruoval: MUSIL	
	Datum: 02. 07.2014	
	Meritko: 1:5	

7.9.13. Upínání horní/ Top clamp/ Spannvorrichtung oben
Kusovník / Piece list / Stückliste

Císlu Sestavy 201.XBV50-050		Ver. 0	Název sestavy UPÍNÁNÍ HORNÍ / TOP CLAMP/SPANNVORRICHTUNG OBEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.W307-120	0	VALEC UPÍNACÍ / FIXING CYLINDER / SPANNZYLINDER		1
2	30.R214-104	0	DESKA / BOARD / PLATTE	HR 80x10	1
3	30.W350-133	1	DESKA / BOARD / PLATTE	HR 30x10	1
4	30.W350-134	0	TYC VODICÍ / LEAD POLE / FÜHRUNGSTANGE	D 8	1
5	30.W350-136	0	DRŽÁK / HOLDER / HALTER		1
6	30.XBV50-051	0	TYC / POLE / STANGE	HR 60x25	1
7	30.XBV60-153	0	KOSTKA / CUBE / WÜRFEL	HR 80x80	1
8	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	4
9	90.001.25.055	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x70	1
10	90.401.02.002	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10x40	1
11	91.172.009	0	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	JPS30D081.SPNOFC	1

Císlu 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

7.9.14. Válec upínací/ Fixing cylinder/ Spannzyylinder



NAZEV SESTAVY VALEC UPINACI	CISLO SESTAVY 201.W307-120	STROJ IN360
	Konstruoval: MUSIL	
	Datum: 05. 01. 2011	
	Meritko: 7:10	

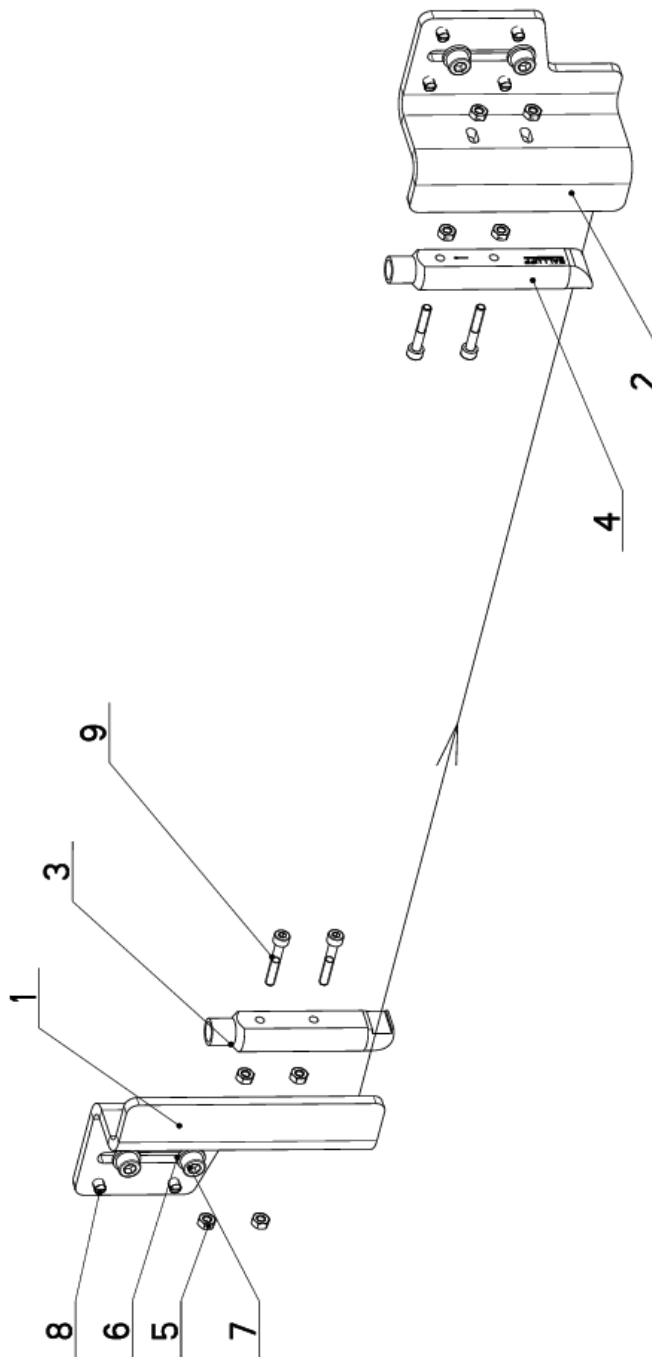
7.9.15. Válec upínací/ Fixing cylinder/ Spannzylinder
Kusovník / Piece list / Stückliste

Císlo Sestavy 201.W307-120		Ver. 0	Název sestavy VALEC UPÍNAČÍ / FIXING CYLINDER / SPANNZYLINDER			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	30.6807-103	1	VÍKO / COVER / DECKEL	TYC 35	1	
2	30.6807-104	1	VÍKO / COVER / DECKEL	TYC 35	1	
3	30.6807-105	0	VÍKO / COVER / DECKEL	TYC 35	1	
4	30.6807-106	0	PIST / PISTON / KOLBEN	TYC 32	1	
5	30.W307-022	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 16 f8	1	
6	30.W307-121	0	VALEC UPÍNAČÍ / FIXING CYLINDER / SPANNZYLINDER	TR 40/30	1	
7	90.001.25.016	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSHSCRAUBE	M6x12	1	
8	92.002.102	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	S-GEV-8LLR	2	
9	95.801.002	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 30	1	
10	95.801.026	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 34	2	
11	96.001.008	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	26x2	2	
12	96.002.006	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	12x2	1	
13	96.041.001	0	TESNENÍ / SEALING / DICHTUNG	d16	1	
14	96.060.001	0	KROUZEK STÍRAČÍ / SCRAPER RING / ABSTREIFRING	16x22	1	
15	96.082.001	0	TESNENÍ / SEALING / DICHTUNG	KROUZEK CU 10/14	2	
16	96.084.002	0	KROUZEK VODÍČÍ / LEAD RING / FÜHRUNGSRING	D 30	1	
17	96.900.007	0	TESNENÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG		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

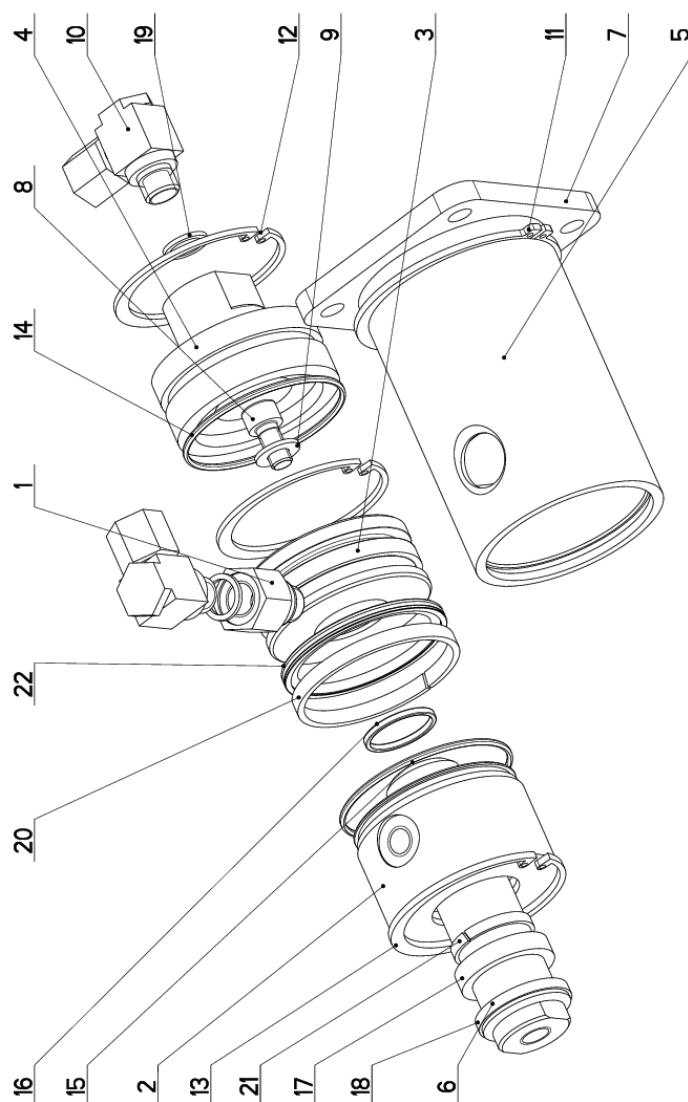
7.9.16. Závora optická/ Optical gate/ Lichtschränke

Cislo Sestavy 201.XBV50-060		Ver. 0	Název sestavy ZAVORA OPTICKA/OPTICAL GATE/LICHTSCHRANKE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.XBV60-162	0	DORAZ / STOP PIECE / ANSCHLAG	P 5x111	1
2	30.XBV60-161	0	DORAZ / STOP PIECE / ANSCHLAG	P 5x100	1
3	91.400.004	0	LASER-UKAZOVATKO / LASER / LASER	BALLUFF	1
4	91.400.003	0	LASER-UKAZOVATKO / LASER / LASER	BALLUFF	1
5	90.100.55.002	0	MATICE / NUT / MÜTTER	MATICE - M4	8
6	90.150.50.004	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 6.4	4
7	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	4
8	90.002.20.005	0	SROUB STAVEČI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x10	8
9	90.001.25.005	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4x25	4



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

7.9.17. Válec svěráku/ Vice cylinder/ Schraubstockzylinder



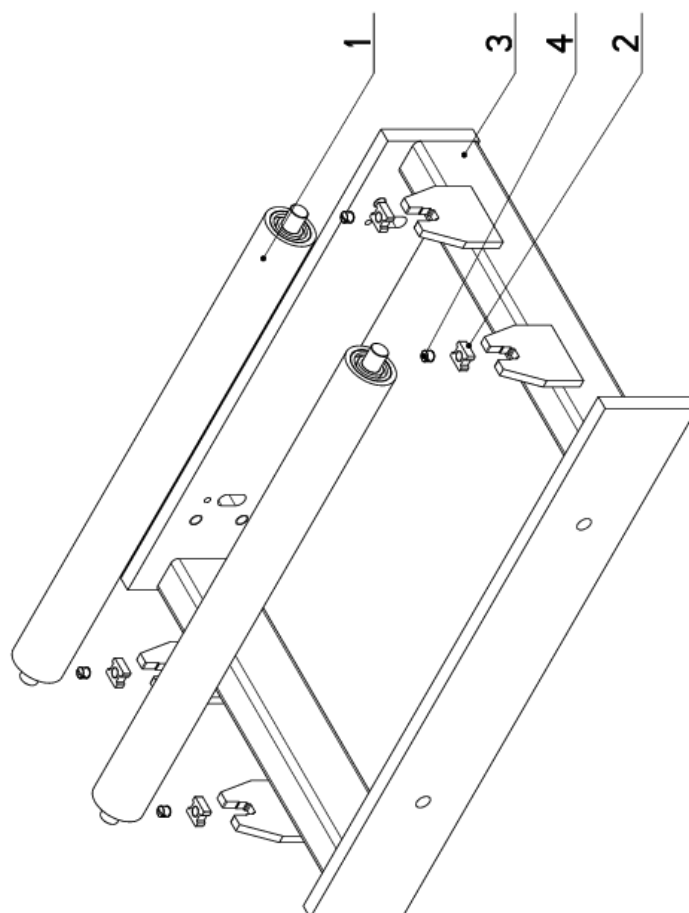
NAZEV SESTAVY VALEC SVĚRAKU	CÍSLO SESTAVY 201.XBV67-020	STROJ XBV
Konstruoval: MUSIL		
Datum: 12. 04.2013		
Měřítko: 7:10		

7.9.18. Válec svěráku/ Vice cylinder/ Schraubstockzylinder
Kusovník / Piece list / Stückliste

Číslo Sestavy 201.XBV67-020		Ver. 0	Název sestavy VALEC SVĚRAKU/VICE CYLINDER/SCHRAUBSTOCKZYLINDER		
Poz	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1807-005	3	SROUBENÍ / BOLTING / VERSCHRAUBUNG	6-HR 22	1
2	30.5907-004	0	VÍKO / COVER / DECKEL	TYC 70	1
3	30.5907-104	0	PIST / PISTON / KOLBEN	TYC 65	1
4	30.6207-203	1	VÍKO / COVER / DECKEL	TYC 65	1
5	30.XBV67-021	0	VALEC / ROLLER / ZYLINDER	TR 62/50	1
6	30.XBV67-022	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 28 f8	1
7	30.XBV67-027	0	PŘILOŽKA / STRAP / LASCHE	P 8x88	1
8	90.001.25.031	0	SROUB IMBUS CERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	1
9	90.150.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 8,4	1
10	92.003.001	0	SROUBENÍ UHLOVE / ANGLE BOLTING / WINKELVERSCHRAUBUNG	P-RSWS-08LR	2
11	95.800.026	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 72	1
12	95.801.011	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 63	2
13	95.801.012	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 65	1
14	96.001.015	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	56X3,55	1
15	96.001.016	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	60x2	1
16	96.002.011	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	24x2	1
17	96.041.003	0	TESNENÍ / SEALING / DICHTUNG	601-28x36x7.1	1
18	96.060.003	0	KROUZEK STIRACI / SCRAPER RING / ABSTREIFRING	KROUZEK STIRACI 28	1
19	96.082.002	0	TESNENÍ / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	3
20	96.084.002	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500630-T47	1
21	96.084.006	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GR4300280-T47	1
22	96.900.005	0	TESNENÍ KOMBINOVANE / COMBINATION SEALING / KOMBIDICHTUNG	PW4200630-220N	1

7.9.19. Díl připojovací/ Transporter/ Vorschub

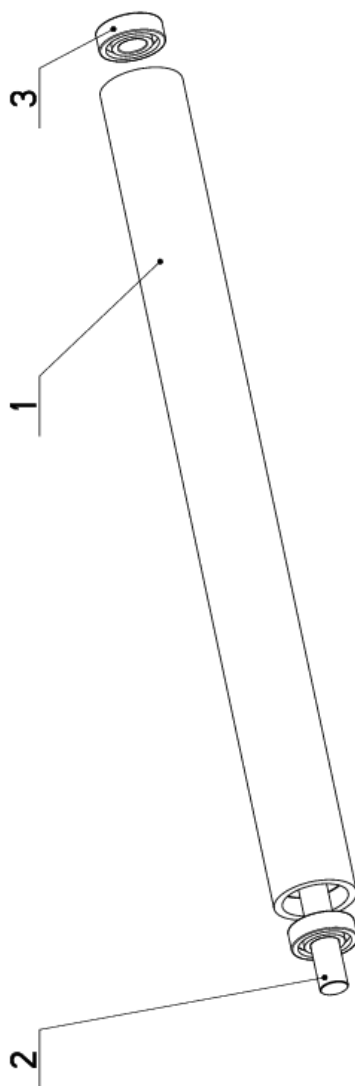
Císlo Sestavy 201.XBVA5-000		Ver. 0	Název sestavy DÍL PŘIPOJOVACÍ / TRANSPORTER / VORSCHUB	
Poz.	Objednací číslo	Ver.	Název položky	Ks
1	201.XBVA5-010	0	VALEČEK / CYLINDER / ROLLE	2
2	30.1517-841	0	MATICE / NUT / MUTTER	4
3	30.XBVA5-001	0	RAM / TRANSPORTER / VORSCHUB	1
4	90.002.20.026	0	SROUB STAVEČI / ADJUSTMENT BOLT / STELSCHRAUBE	4



Císlo 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

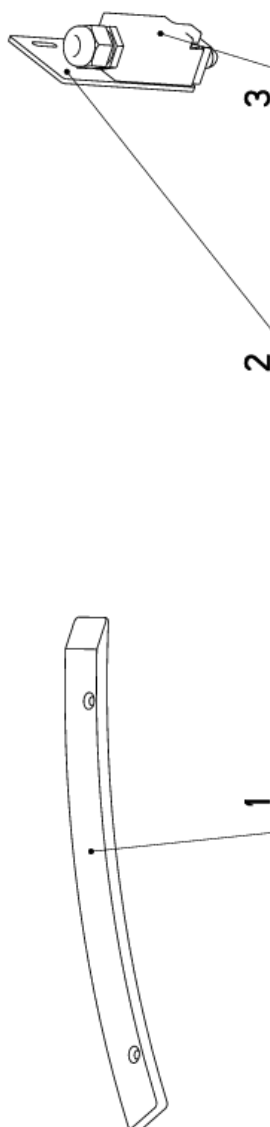
7.9.20. Váleček/ Zylinder/ Rolle

Číslo Sestavy 201.XBVA5-010		Ver. 0	Název sestavy VALECEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.XBVA5-011	0	VALECEK / CYLINDER / ROLLE	TR 51x6.3	1
2	30.XBVA5-012	0	OSA / AXLE / Achse	d17	1
3	95.001.016	0	LOŽISKO / BEARING / LAGER	6203 2RS	2



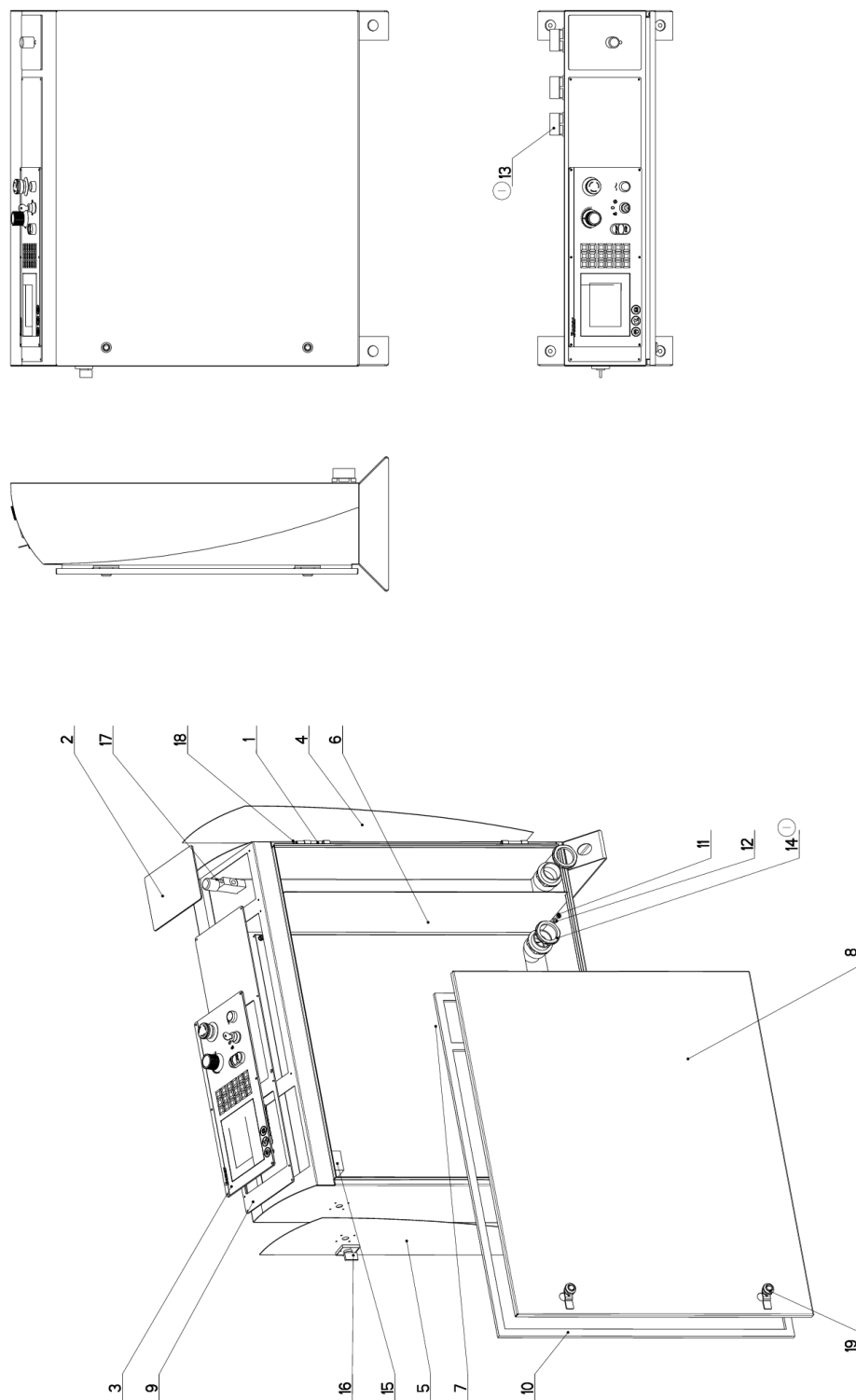
7.9.21. Doraz/ Stop piece/ Anschlag

Císlo Sestavy 201.XBV53-080		Ver. 8	Název sestavy DORAZ/STOP PIECE/ANSCHLAG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.XBV53-081	0	DORAZ / STOP PIECE / ANSCHLAG	P 8x108	1
2	30.XBV53-082	0	DRŽAK / HOLDER / HALTER	P 3x60	1
3	91.173.010	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER		1



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

7.9.22. Ovladač panel / Control panel / Bedienpult



WATK. SÝSTAVY OVLADAČI: PANEL	CÍRO. SÝSTAVY 201. XB/V30-000	STRUJ. IN360GANC LS
Konstruoval: HLADIL	Datum: 08. 02. 2016	Verz. číslo: 7:50

7.9.23. Kusovník / Piece list / Stückliste -
Ovladač panel / Control panel / Bedienpult

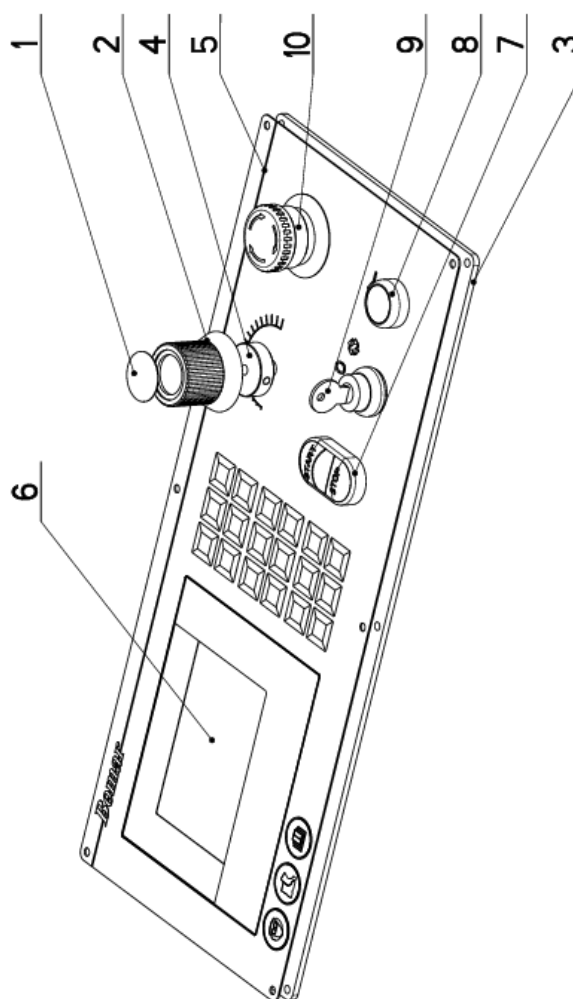
Císlo Sestavy 201.XBV30-000		Ver. 1	Název sestavy OVLADACÍ PANEL/CONTROL PANEL/BEDIENPULT		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.7217-028	1	CEP / LUG / BOLZEN	Th9	2
2	251.653	0	PANEL / PANEL / PANEL		1
3	201.ER2530-310	0	PANEL ELEKTRO / ELECTRO PANEL / PANEL		1
4	30.R230-204	0	PLECH / PLATE / BLECH	P 1x220	1
5	30.R230-206	1	PLECH / PLATE / BLECH	P 1x220	1
6	30.W430-101	1	SKRIN / BOX / KASTEN		1
7	30.W430-102	0	PANEL / PANEL / PANEL	P 1.5x825	1
8	30.W430-103	0	VÍKO / COVER / DECKEL		1
9	30.XBV30-002	0	PANEL / PANEL / PANEL	P3x205	1
10	61.352.001	0	TESNĚNÍ / SEALING / DICHTUNG	TESNĚNÍ 19x10	1
11	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE - M6	4
12	90.150.50.004	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 6,4	4
13	91.071.022	0	VÝVODKA / BUSHING / TÜLLE		3
14	91.072.016	0	MATICE / NUT / MUTTER		3
15	91.170.003	0	SPINAC VÁKOVÝ / CAM SWITCH / SCHALTER	LE2-12-1763	
16	91.180.001	0	DESKA SPINACE / ELECTRIC BOARD / PLATINE		1
17	92.152.004	0	VENTIL SKRTICI / CHOKE VALVE / DROSSELVENTIL	VSO1-04/R 2.5-0	1
18	95.802.003	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 5	2
19	99.104.002	0	ZAMEK / LOCK / SCHLOSS	ZAMEK ČINSKÝ	2

1.ZRUS.2xVYVODKA 91.071.005 A NAHR.2xVYVODKA 91.071.022,ZRUS.2xMATICE 91.072.008 A MAHR.2xMATICE 91.072.016.
264/ZM042 8.2.2016 SLEZACKOVA

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

7.9.24. Panel elektro/ Electro panel/ Panel

Cislo sestavy 201.ER2530-310		Ver. 0		Název sestavy PANEL ELEKTRO/ELECTRO PANEL/PANEL	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6130-012	0	VÍKO / COVER / DECKEL	P 0.5x 30x30	1
2	30.6130-020	0	OVLADANI / CONTROLS / STEUERUNG	VYLISEK	1
3	30.ER2530-302	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
4	30.R230-010	0	MEZIKUS / INTERMEDIATE PIECE / PASSTÜCK	d 32	1
5	31.ER2530-303	0	SAMOLEPKA / STICKER / AUFLEBER		1
6	6PPT30 0573-20X	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
7	91.060.034	0	HLAVICE / HEAD / KOPF	START/STOP	1
8	91.060.053	0	HLAVICE / HEAD / KOPF		1
9	91.060.058	0	PREPINAC / SWITCH / UNSCHALTER		1
10	91.060.084	0	HLAVICE TOTAL STOP / TASTE TOTAL STOP		1

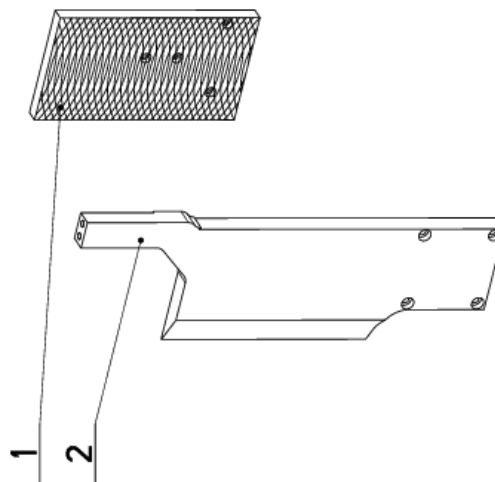


Cislo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.10. Voitelné příslušenství/ Optionales Zubehör/ Optional accessories

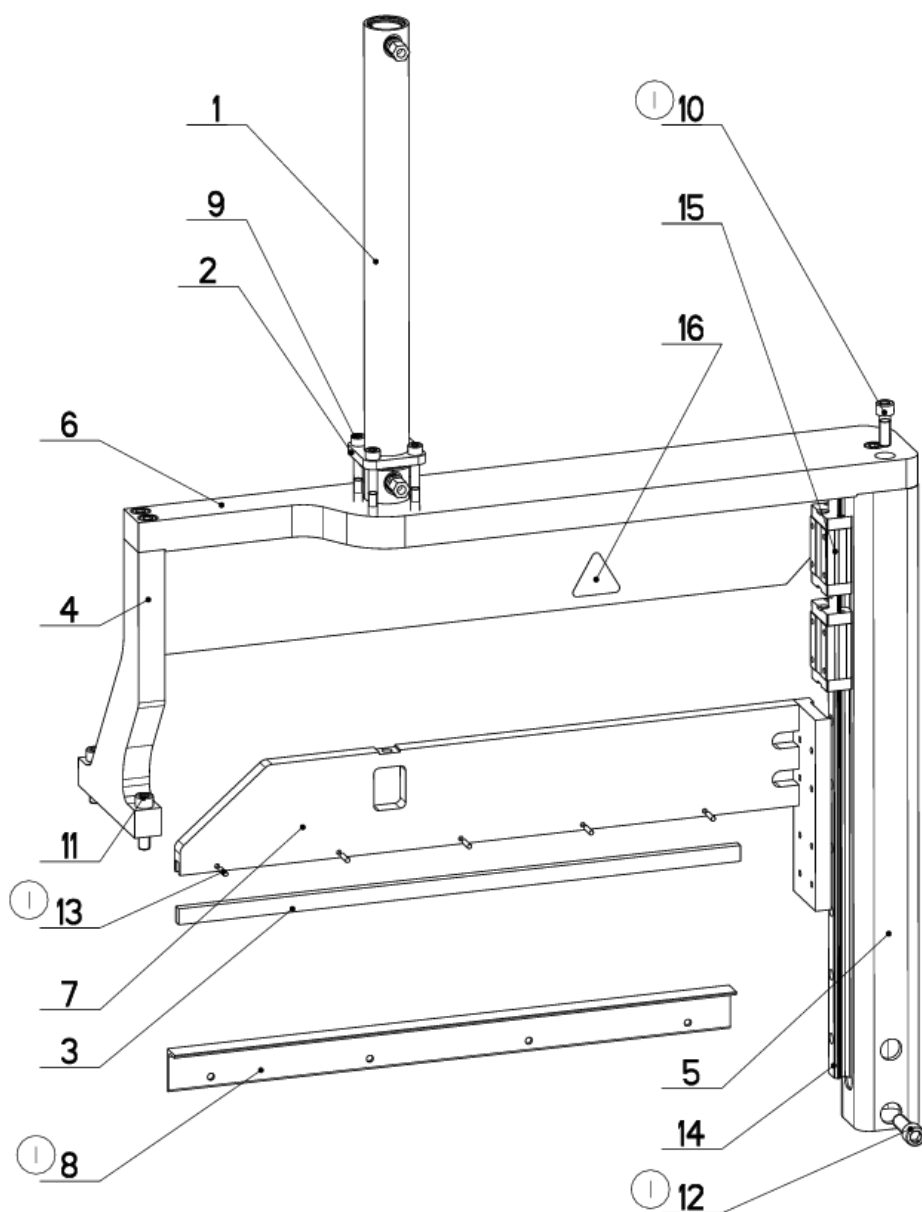
7.10.1. Čelist/ jaw/ Backe

Cislo Sestavy 201.N314-270		Ver. 0	Název sestavy CELIST/JAW/BACKE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr
1	30.N303-052	0	CELIST / JAW / BACKE	HR 165x20
2	30.N303-053	0	CELIST PEVNA / SOLID JAW / FESTE BACKE	P30x206
				Ks
				1
				1



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

7.10.2. Upínání horní/ Top clamp/ Spannvorrichtung oben



NAZEV SESTAVY UPÍNÁNÍ HORNÍ	CÍSLO SESTAVY 201.D314-250	STROJ IN360GANC
	Konstruoval: MUSIL	
	Datum: 02. 09. 2014	
	Meritko: 1:5	

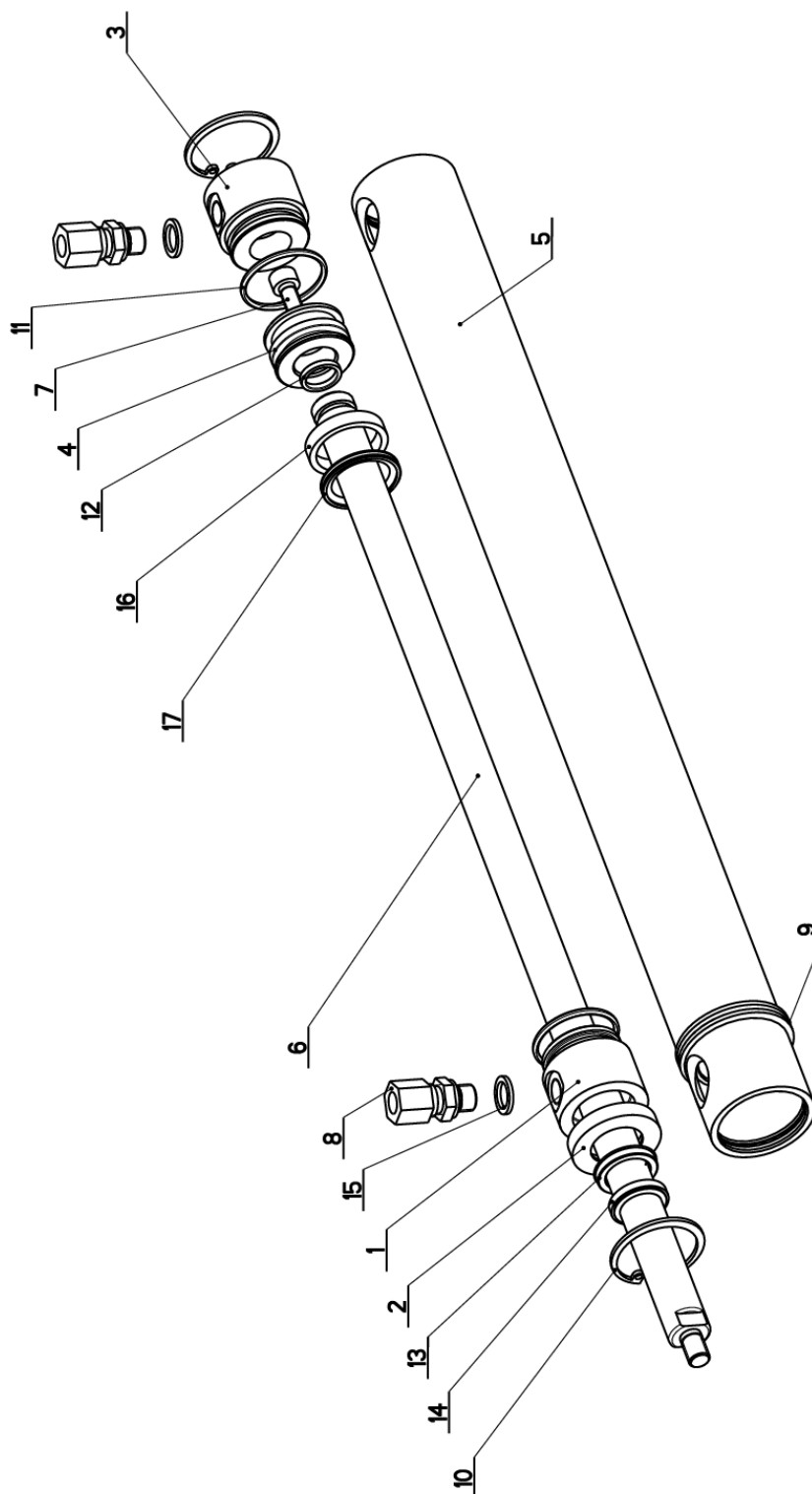
7.10.3. Upínání horní/ Top clamp/ Spannvorrichtung oben
Kusovník / Piece list / Stückliste

Císlu Sestavy 201. D314-250		Ver. I	Název sestavy UPÍNÁNÍ HORNÍ / TOP CLAMP/ SPANNVORRICHTUNG OBEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201. D307-140	0	VALEC NAPÍNACÍ / TENSIONING CYLINDER / SPANNZYLINDER	D30/16	1
2	30. D311-126	0	DRŽÁK / HOLDER / HALTER	P 8x58	1
3	30. D314-054	0	LISTA / TRIM / LEISTE	TYC 8x15x2000	1
4	30. D314-153	0	SLOUP SVĚRAKU / VICE POLE / SCHRAUBSTOCKSÄULE	P25 - 165	1
5	30. D314-251	0	SLOUP / POLE / SÄULE		1
6	30. D314-252	0	NOSNÍK / CARRIER / TRÄGER		1
7	30. D314-256	0	CELIST POKRYBLIVA / MOVING JAW / BEWEGLICHE BACKE		1
8	30. D314-257	0	PROFIL L / PROFILE L / PROFIL L	L 40x20x3	1
9	90. 001.25.039	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x55	4
10	90. 001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x30	4
11	90. 001.25.050	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x40	2
12	90. 001.25.059	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x35	2
13	90. 303.07.003	0	KOLÍK PRUŽNÝ / PIN / BOLZEN	KOLÍK 4x16	5
14	99.200.297	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA20R	1
15	99.201.060	0	VOZÍK LINEARNÍHO VEDENÍ / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA20S SS F0 N	2
16	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP. STLAČENÍ	1

I. PRIDANÝ KOLÍK 4x16 90.303.07.003; ZRUS. SROUB M10x35 90.001.25.049 NAHR. M10x30 90.001.25.048, ZRUS. 2xSROUB M10x30 90.001.25.048 NAHR. M12x35 90.001.25.059; PRIDANÝ PROFIL L 30. D314-257. 143/ZM191 2.9.2014 LATAL

Císlu 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

7.10.4. Válec napínací/ Tensioning cylinder/ Spannzyylinder



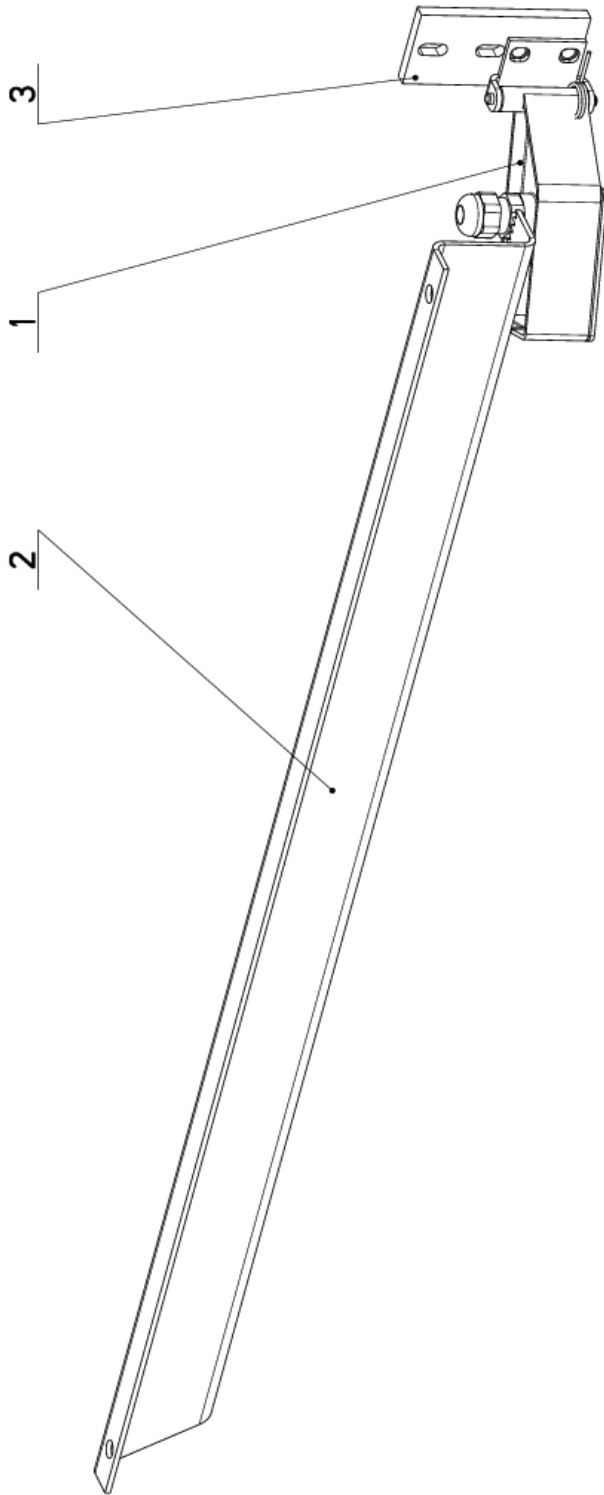
NAZEV SESTAVY VÁLEC NAPÍNACÍ	ČÍSLO SESTAVY 201.D307-140	STROJ IN360GANC
Konstruoval: MUSIL		
Datum: 17. 02.2010		
Meritko: 7:10		

7.10.5. Válec napínací/ Tensioning cylinder/ Spannzyylinder
Kusovník / Piece list / Stückliste

Číslo sestavy 201.D307-140		Ver. 0	Název sestavy VALEC NAPÍNACÍ/TENSIONING CYLINDER/SPANNZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozebr	Ks
1	30.6807-103	0	VÍKO / COVER / DECKEL	TYC 35	1
2	30.6807-104	1	VÍKO / COVER / DECKEL	TYC 35	1
3	30.6807-105		VÍKO / COVER / DECKEL	TYC 35	1
4	30.6807-106	0	PIST / PISTON / KOLBEN	TYC 32	1
5	30.0307-141		VALEC / ROLLER / ZYLINDER	TR 40/30H8	1
6	30.0307-142	0	PISTNICE / PISTON ROD / KOLBENSTANGE	TYC 16	1
7	90.001.25.017	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x16	1
8	92.002.102	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	S-GEV-8LLR	2
9	95.800.015	0	KROUZEK POJIST.VNEJŠÍ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNY KROUZEK 40	2
10	95.801.026	0	KROUZEK POJIST.VNITŘNÍ / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 34	2
11	96.001.008	0	KROUZEK O STATICKÝ / STATIC O RING / O-RING STATISCH	26x2	2
12	96.002.006	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	12x2	1
13	96.041.001		TESNĚNÍ / SEALING / DICHTUNG	16x24x4	1
14	96.060.001	0	KROUZEK STÍRAČÍ / SCRAPER RING / ABSTREIFRING	16x22	1
15	96.082.001	0	TESNĚNÍ / SEALING / DICHTUNG	KROUZEK CU 10/14	2
16	96.084.002	0	KROUZEK VODÍČÍ / LEAD RING / FÜHRUNGSRING		1
17	96.900.007	0	TESNĚNÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG		1

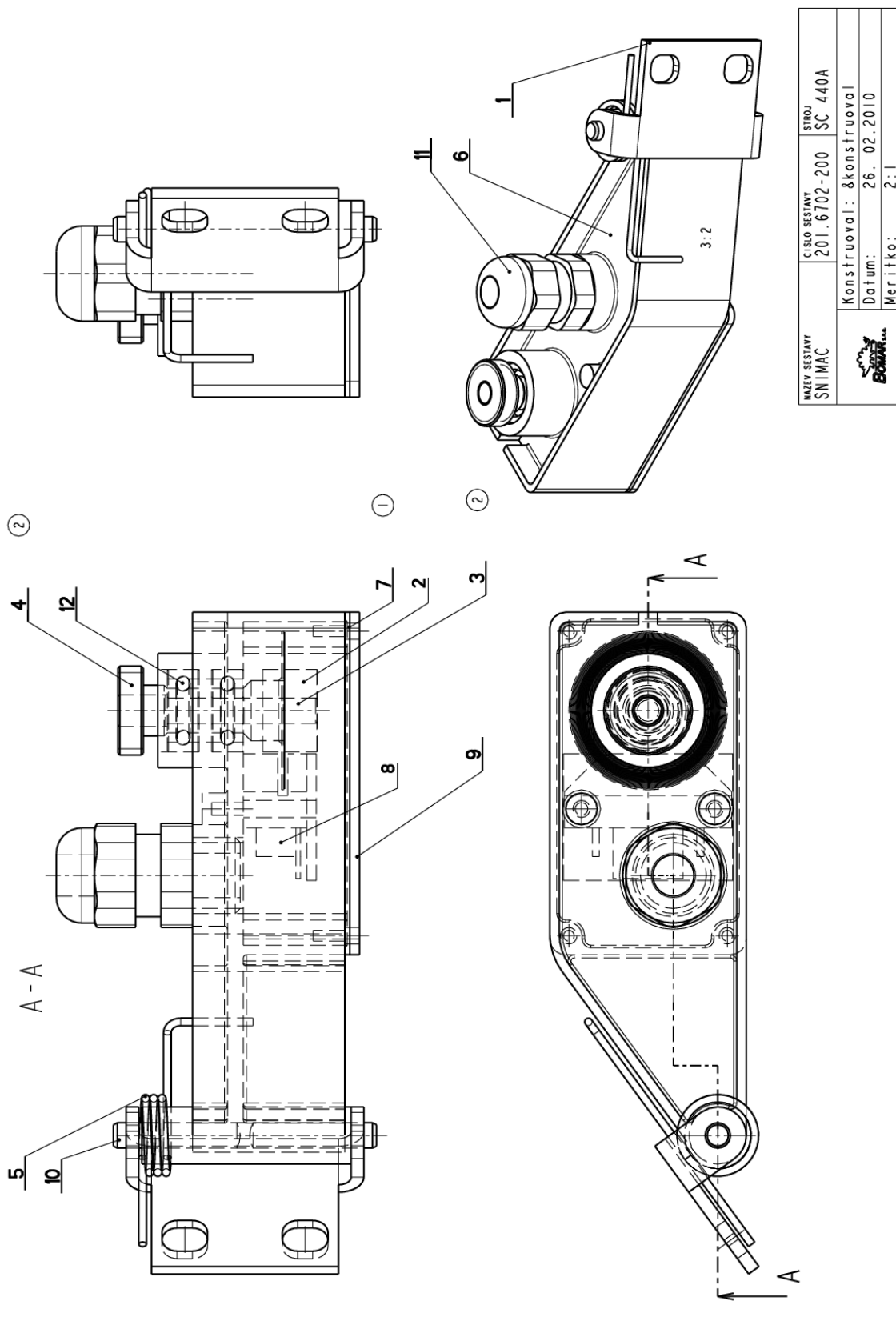
7.10.6. Odměrování/ Measuring/ Abmessung

Cislo Sestavy 202.Y414-010		Ver. 0	Název sestavy ODMEROVÁNÍ / MEASURING / GEHRUNGSMESSUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6702-200	0	SNIMAC / SENSOR / SENSOR		1
2	30.Y414-011	1	HŘEBEN / COMB / KAMM	P 2x73	1
3	30.Y414-012	0	DRŽÁK / HOLDER / HALTER	P 5x30	1



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

7.10.7. Snímač/ Sensor/ Senzor



7.10.8. Snímač/ Sensor/ Senzor
Kusovník / Piece list / Stückliste

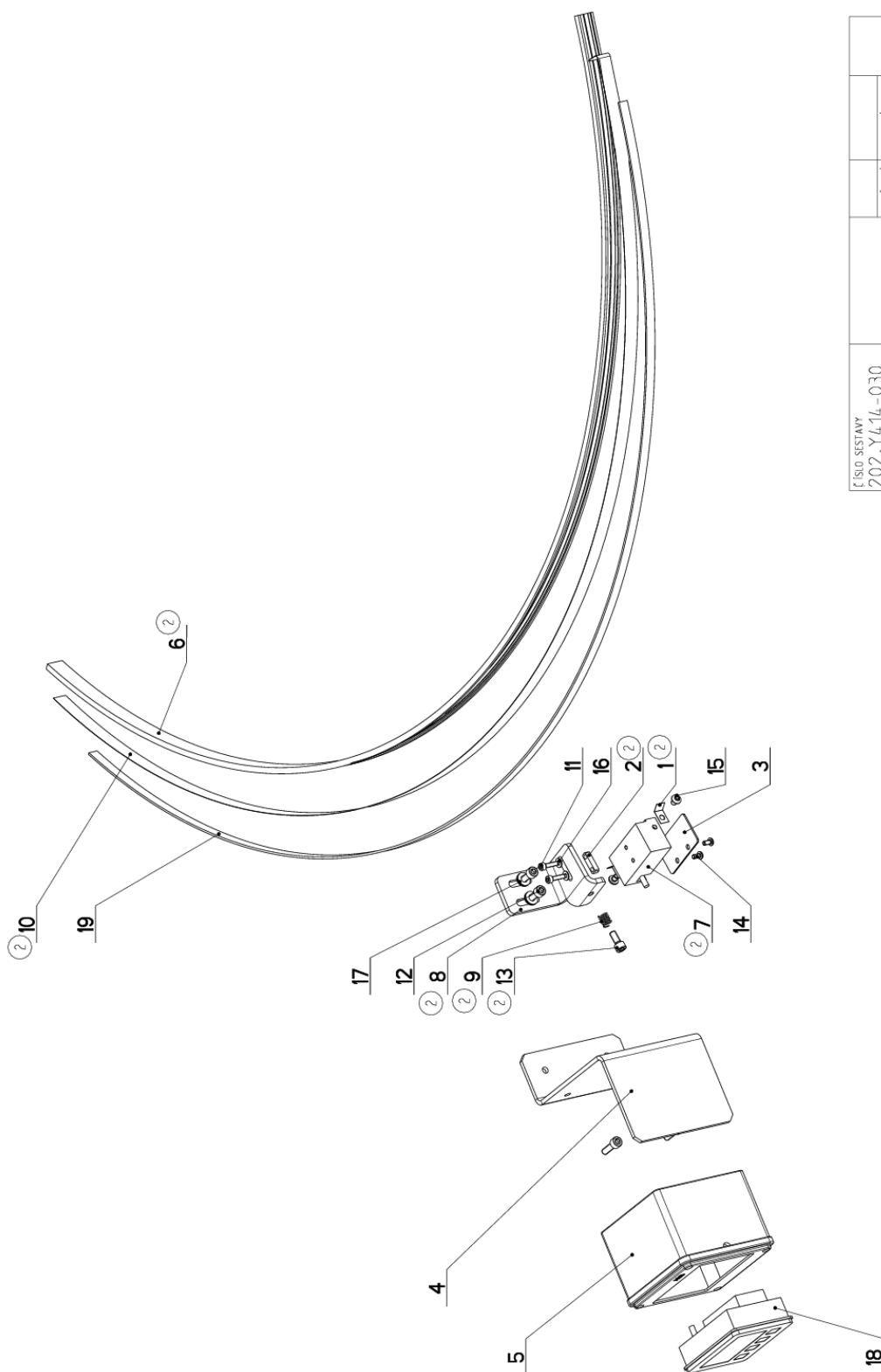
Císlo Sestavy 201.6702-200		Ver. 2	Název sestavy SNÍMAČ/SENSOR/SENSOR		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2902-205	1	KONZOLA / CONSOLE / KONSOLE	P2 - 25.5	1
2	30.2902-209	0	CLONA / CURTAIN / SCHÜRZE		1
3	30.6702-212	0	HRIDEL / SHAFT / WELLE	KOLIK 5x32	1
4	30.6702-214	0	PASTOREK / PINION / RITZEL	z=12	1
5	31.2902-113	0	PRUŽINA / SPRING / FEDER	d 1.2	1
6	31.2902-201	0	RAMENO / SHOULDER / SÄGERAHMEN	VYLISEK-PLAST	1
7	31.2902-204	0	TESNENÍ / SEALING / DICHTUNG	TL.1 - 32.3	1
8	31.2930-001	0	SNÍMAČ / SENSOR / SENSOR	DAS 330GA	1
9	81.2902-203	0	KRYT / COVER / ABDECKUNG	P 1.5 - 31.8	1
10	90.300.02.XXX	0	KOLIK VALCOVÝ KALENÝ / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLIK 4x20	2
11	91.070.010	0	PRŮCHODKA / LEADTHROUGH / DURCHFÜHRUNG	M12x1.5 ČERNA	1
12	95.001.002	0	LOŽISKO / BEARING / LAGER	624 2RS	2

② POZ. 30.6702-202 NAHRAZENA 30.6702-212, POZ. 30.6702-204 NAHRAZENA 30.6702-214 22.3.05 STASTNA

① TESNENÍ 31.2902-206 NAHRAZENO TESNENÍM 31.2902-204 2.9.2003 ROZKOSNY

Císlo 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

7.10.9. Odměrování/ Measuring/ Abmessung



ČÍSLO SESTAVY	202.Y4.14-030	POČET	1	POČET	1
MĚŘÍTKO:	3:10	DATUM VÝK. AŽ:	11.06.2013	POČET	1
KONSTR.:	HLADIL	DATUM POŽADOV.:	11.06.2013	POČET	1
DATUM:	12. 06. 2013	VÝDAL:	11.06.2013	POČET	1
NÁZEV SESTAVY	ODMĚROVÁNÍ			POČET	1
Všechny výkresy a technická řešení dle jsou dle vlastnictvím společnosti BOMAR, spol. s r. o. a jsou chráněny.					

7.10.10. Odměrování/ Measuring/ Abmessung
Kusovník / Piece list / Stückliste

Císlo Sestavy 202.Y414-030		Ver. 2	Název sestavy ODMEROVANÍ / MEASURING / GEHRUNGSMESSUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1504-017 (2)	0	STERAC / WIPER / ABSTREIFER	P 0,3x11	2
2	30.V302-133 (2)	0	PERO / SPRING / FEDER	HR 10x6	1
3	30.Y414-033	0	VÍKO / COVER / DECKEL	PI.5 - 33	1
4	30.Y414-038	0	DRŽAK / HOLDER / HALTER	P4 - 120	1
5	30.Y414-039	1	KRABICE ELEKTRO / ELECTRO BOX / ELEKTRODOSE	100x100x80	1
6	30.Y414-045 (2)	0	PROFIL / PROFILE / PROFIL		1
7	30.Y414-046 (2)	0	DRŽAK / HOLDER / HALTER	HR 25x35	1
8	30.Y414-047 (2)	0	DRŽAK / HOLDER / HALTER	P5x67	1
9	31.1605-121 (2)	0	PRŮŽINA / SPRING / FEDER	1x9.5x12x4	1
10	55.800.009 (2)	0	PLECH / PLATE / BLECH	P 0,3 - 15	1
11	90.001.25.004	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4x16	2
12	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	4
13	90.001.25.092 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	1
14	90.013.27.001	0	SROUB / BOLT / SCHRAUBE	M4x8	2
15	90.013.27.002	0	SROUB PULKULATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M5x6	2
16	90.150.50.002	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 4,3	2
17	90.163.00.009	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	NORD-LOCK 6	2
18	91.270.016	0	SNÍMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	I216E-000-1-01,0-0	1
9	91.271.005	0	PASKA MAGNETICKÁ / MAGNETIC TAPE / MAGNETBAND	MB 20.25	1

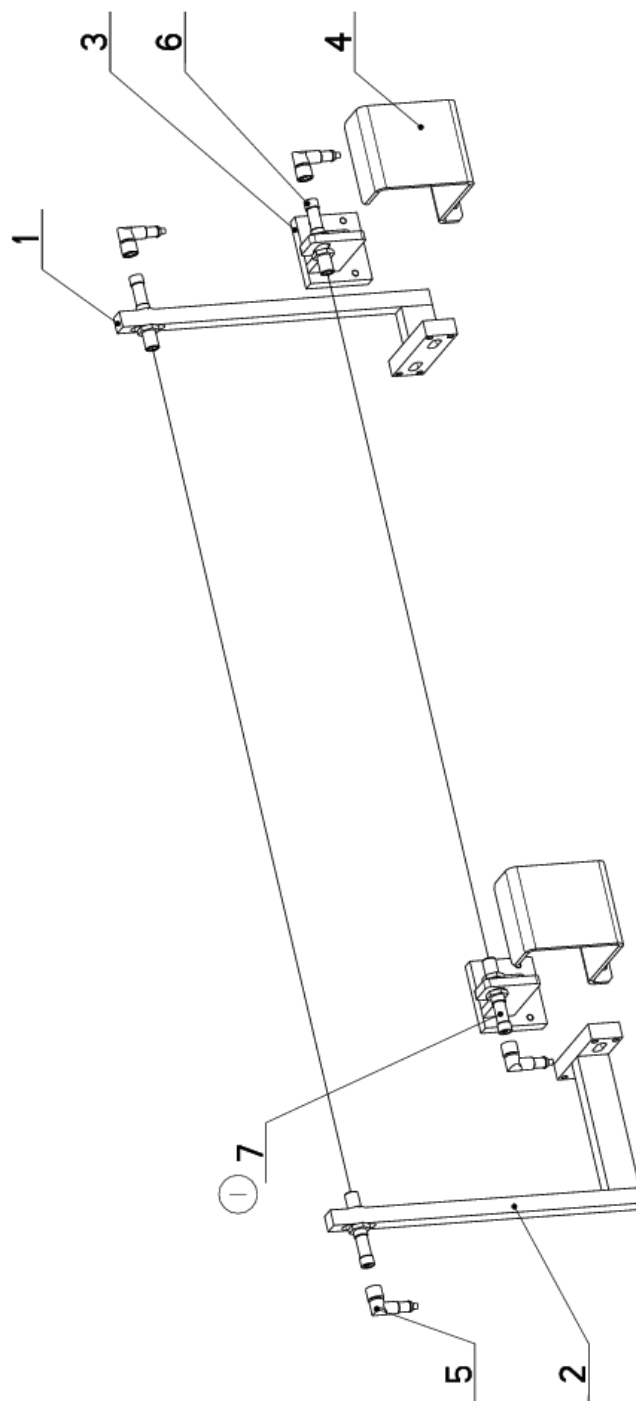
1. ZRUS.VYVODKA M12 91.071.013, MATICE M12 91.072.010. 014/ZM049 4.3.2013 SLEZACKOVA
2. ZRUS.KOSTKA 30.Y414-031 A NAHR. 30.Y414-046, ZRUS.DRŽAK 30.Y414-032 A NAHR. 30.Y414-047, ZRUS.STERAC 30.Y414-035
A NAHR. 30.1504-017, ZRUS.STERAC 30.Y414-036, PRID.PROFIL 30.Y414-045, PRŮŽINA 31.1605-121, 1xSROUB M6x14(90.001.25.092) .
PERO 30.V302-133. 123/ZM174 12.6.2013 SLEZACKOVA

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

7.10.11. Závora optická / Optical gate / Lichtschränke

Císlo Sestavy 201.D314-260		Ver. 1	Název sestavy ZAVORA OPTICKA/OPTICAL GATE/LICHTSCHRANKE		
Poz.	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	30.D303-061	0	DRZAK / HOLDER / HALTER		1
2	30.D303-062	0	DRZAK / HOLDER / HALTER		1
3	30.D311-061	0	DRZAK / HOLDER / HALTER		2
4	30.D311-063	0	KRYT / COVER / ABDECKUNG	P 4x80	2
5	91.142.001	0	KONEKTOR / CONNECTOR / STECKVERBINDER		4
6	91.400.018	0	SNIMAC / SENSOR / SENSOR	BOS 12M	2
7	91.400.055	0	SNIMAC / SENSOR / SENSOR	BOS	2

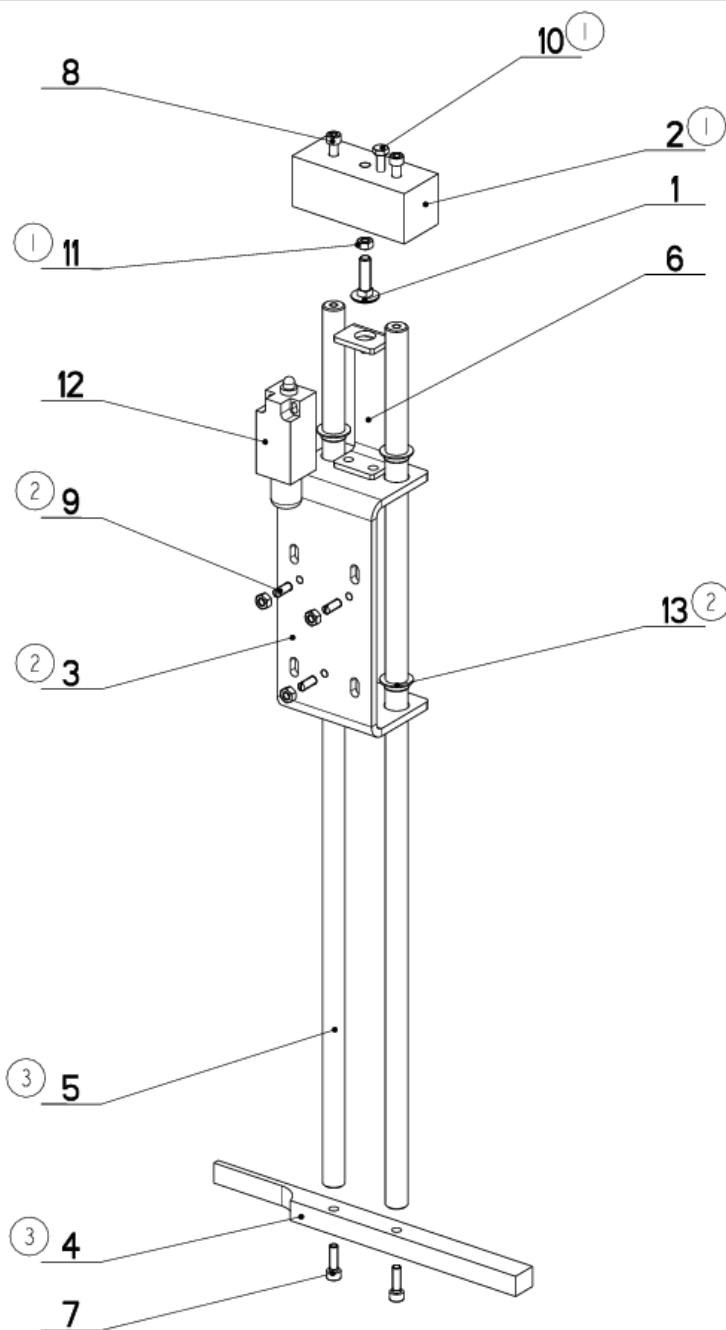
I.ZRUSEN SNIMAC 91.400.017 A NAHR.91.400.055. 133/ZM/29 11.6.2015 SLEZACKOVA



AUTOMATIKA JEDNOTLIVÉHO REZU - IN360GANC

Císlo 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

7.10.12. Doraz / Stop piece / Anschlag



NAZEV SESTAVY DORAZ	CISLO SESTAVY 221.V314-350	STROJ IN360DGA
	Konstruoval: HLADIL	
	Datum: 15. 03.2016	
	Meritko: 1:4	

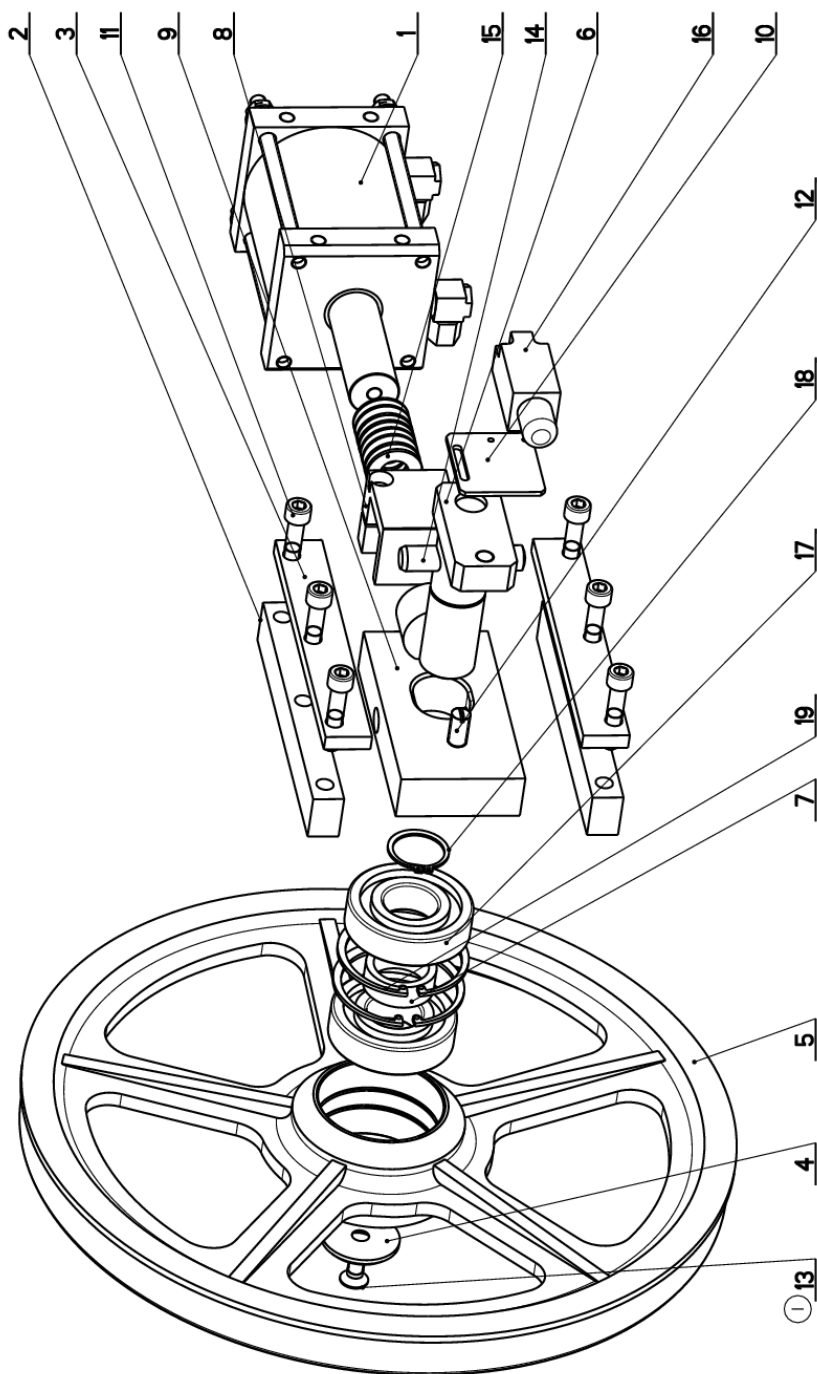
7.10.13. Doraz / Stop piece / Anschlag
Kusovník / Piece list / Stückliste

Cislo Sestavy 221.V314-350		Ver. 3	Navez sestavy DORAZ/STOP PIECE/ANSCHLAG		
Poz.	Objednaci cislo	Ver.	Navez polozky	Rozmer	Ks
1	30.0702-013	0	SROUB / BOLT / SCHRAUBE	M8	1
2	30.V314-351 (1)	0	HRANOL / BLOCK / PRISMA	HR 40x40	1
3	30.V314-355 (2)	0	PLECH / PLATE / BLECH	P6x84	1
4	30.V314-358 (3)	0	DORAZ / STOP PIECE / ANSCHLAG	HR 20x16	1
5	30.V314-359 (3)	0	TYC VODICI / LEAD POLE / FÜHRUNGSSTANGE	d 16	2
6	30.V414-206	0	DRZAK / HOLDER / HALTER	P 4x36	1
7	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	2
8	90.001.25.126	0	SROUB IMBUS / /	M6x50	2
9	90.002.20.008 (2)	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6x16	3
10	90.005.55.069 (1)	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M6x60	1
11	90.100.55.004 (1)	0	MATICE / NUT / MUTTER	MATICE _ M6	4
12	91.173.007	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	-RIWK	1
3	95.710.053 (2)	0	POUZDRO / SLEEVE / BUCHSE	GFW 1618.09	4

1. PRIDAN HRANOL 30.V314-052, ZRUS.HRANOL 30.V414-357 A NAHR.30.V314-351, 1xPRID.SROUB M6x60 (90.005.55.069), 1xMATICE M6(90.100.55.004) . 239/ZM304 25.10.2012 SLEZACKOVA
2. ZRUSENY DILY 30.V414-351, 30.V414-352; PRIDANY DILY 30.V314-355, 90.002.2D.008 a 95.710.053 159/zm.168 24.5.2013 HLADIL
3. DIL 30.V314-353 NAHRAZEN DILEM 30.V314-359; ZRUSENY DILY: 30.V314-052, V414-356, 30.V414-355; PRIDAN DIL 30.V314-358; 041/zm.026 20.2.2015 HLADIL

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

7.10.14. Napínání / Tensioning / Spannung



NAZEV SESTAVY NAPÍNÁNÍ	ČÍSLO SESTAVY 201.V308-200	STROJ IN 360
Konstruoval: HLADIL		
Datum: 29. 10. 2010		
Meritko: 2:5		

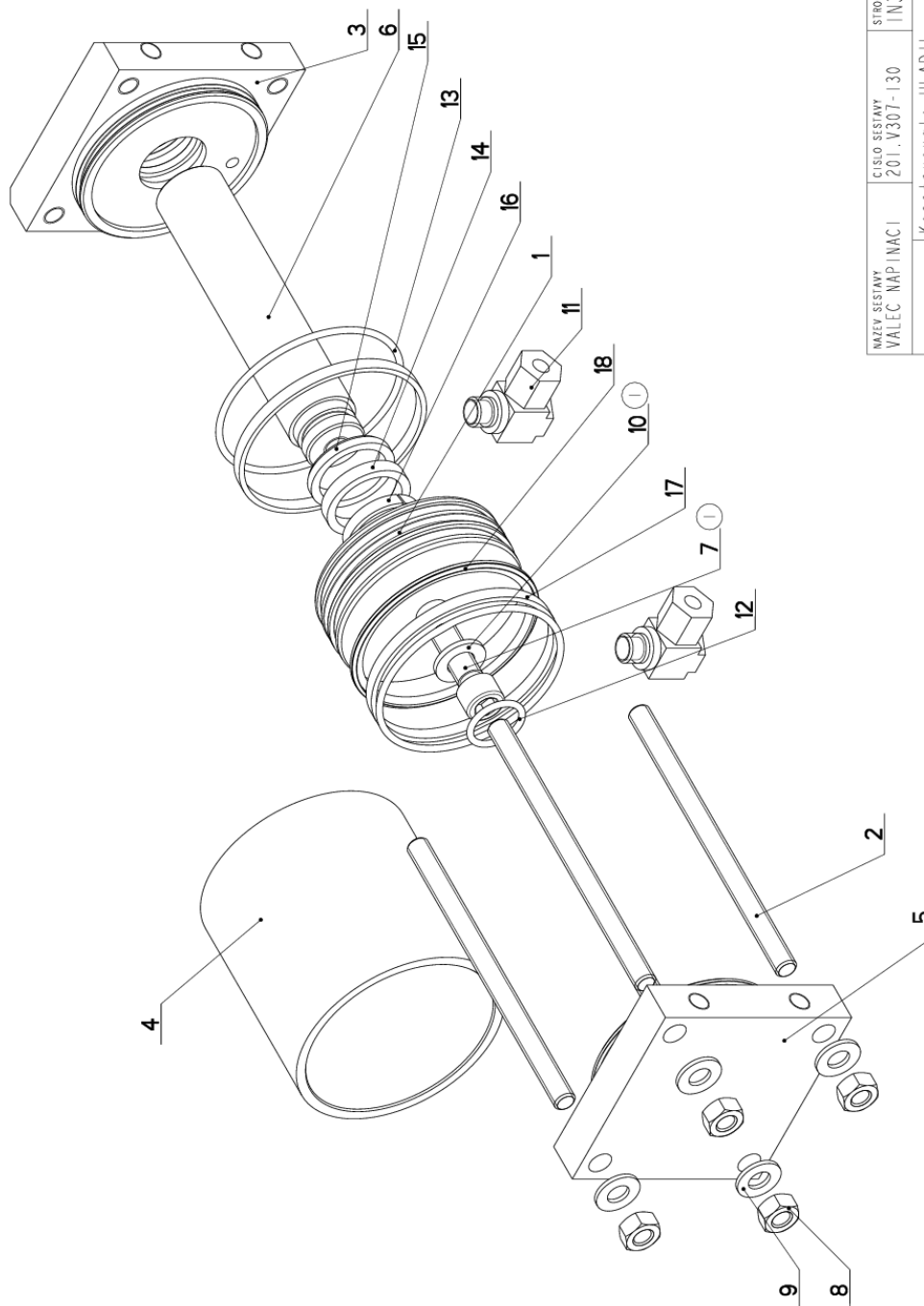
7.10.15. Napínání / Tensioning / Spannung
Kusovník / Piece list / Stückliste

Císlo Sestavy 201.V308-200		Ver. I	Název sestavy NAPINANI / TENSIONING / SPANNUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.V307-130	I	VALEC NAPINACÍ / TENSIONING CYLINDER / SPANNZYLINDER		I
2	30.0808-002	I	LISTA VODICÍ / LEAD TRIM / FÜHRUNGSLISTE	30x20	2
3	30.0808-006	I	LISTA / TRIM / LEISTE	HR 30x10	2
4	30.2908-001	I	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	d 50	I
5	30.2908-103	2	KOLO NAPINACÍ / TENSIONING WHEEL / UMLENKRAD	ODLITEK	I
6	30.4808-101	4	CEP NAPINACÍ / TENSIONING LUG / SPANNUNGSBOLZEN		I
7	30.4808-103	I	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	d 45	I
8	30.V308-005	0	TRMEN / BINDER / BÜGEL	HR 60x60	I
9	30.V308-101	0	KOSTKA NAPINACÍ / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL		I
10	30.V308-106	0	PLECH / PLATE / BLECH	P3x55	I
11	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x50	6
12	90.002.20.013	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x25	I
13	90.011.27.008 (1)	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	I
14	90.300.02.003	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 16x80	I
15	90.350.02.002	0	TALÍROVA PRUŽINA / DISC SPRING / TELLERFEDER	35,5x18,3x2,0x2,8	8
16	91.173.007	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	-RIWK	I
17	95.001.026	0	LOŽISKO / BEARING / LAGER	6307 2RS	2
18	95.800.014	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 35	I
19	95.801.013	0	SEGR DIRA. / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 80	2

I.ZRUS.SROUB M12x20(90.011.27.009) A NAHR.M10x20(90.011.27.008). 1107ZM212 25.6.2012 SLEZACKOVA

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; Rožmer/Stock size/Abmessung

7.10.16. Válec napínací / Tensioning cylinder / Spannzyylinder



NÁZEV SOUSTAVY VÁLEC NAPÍNACÍ	ČÍSLO SOUSTAVY 201.V307-130	STROJ IN360
Konstruoval: HLADIL		
Datum: 22. 07. 2015		
Meritko: 7:10		

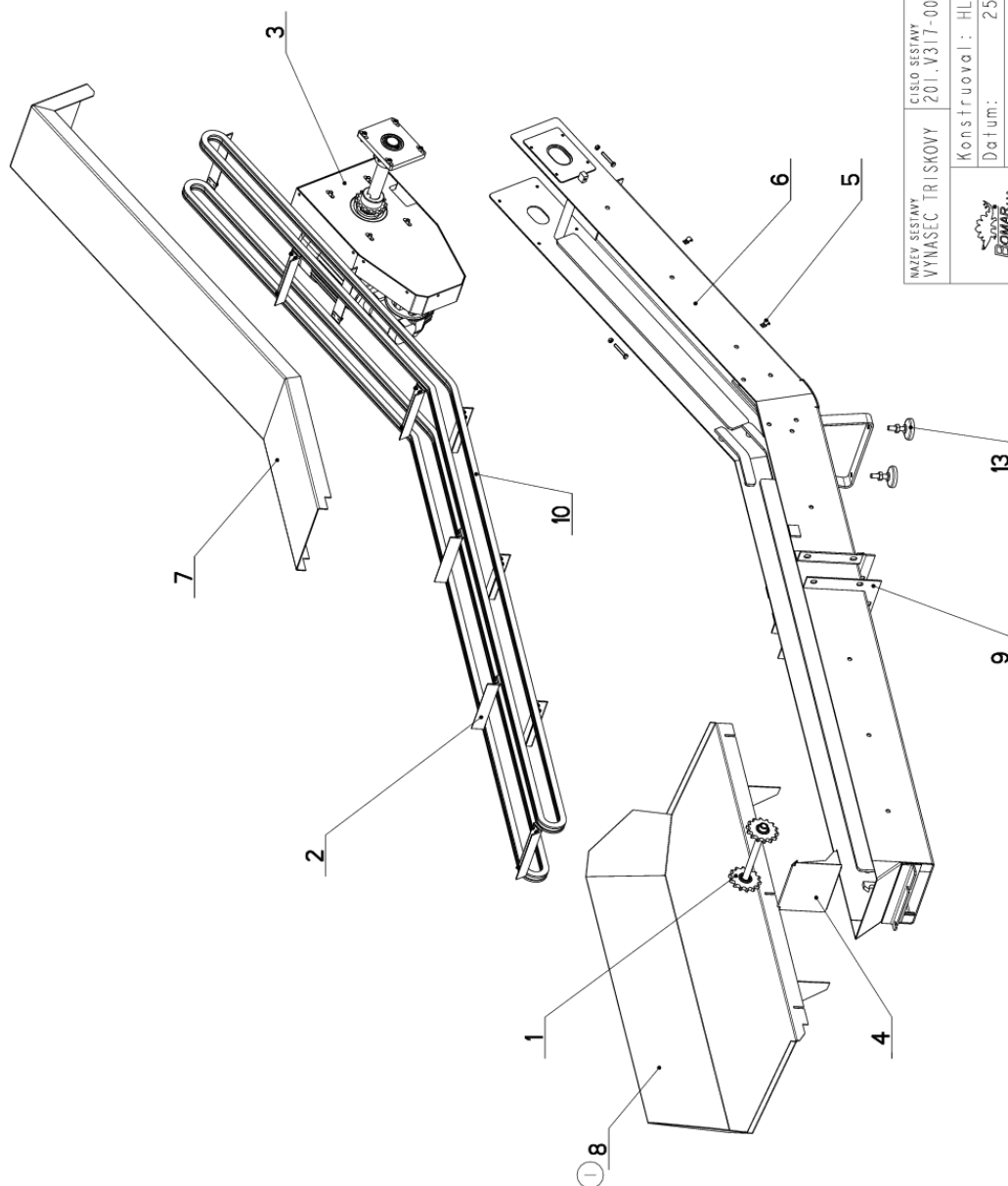
7.10.17. Válec napínací / Tensioning cylinder / Spannzylinder
Kusovník / Piece list / Stückliste

Císlo Sestavy 201.V307-130		Ver. I	Název sestavy VALEC NAPÍNAČI / TENSIONING CYLINDER / SPANNZYLINDER		
Poz	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6407-504	0	PIST / PISTON / KOLBEN	d 90	1
2	30.6707-406	0	TYC ZAVITOVÁ / THREADED POLE / GEWINDESTANGE	TYC M10	4
3	30.V307-031	0	VÍKO / COVER / DECKEL	HR 100x100	1
4	30.V307-032	0	VALEC NAPÍNAČI / TENSIONING CYLINDER / SPANNZYLINDER	TR 100/90	1
5	30.V307-033	0	VÍKO / COVER / DECKEL	HR 100x100	1
6	30.V307-135	1	PISTNICE / PISTON ROD / KOLBENSTANGE	d 32	1
7	90.001.25.059 (1)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x35	1
8	90.100.55.006	0	MATICE / NUT / MUTTER	MATICE - M10	4
9	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	4
10	90.150.50.007 (1)	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 13	1
11	92.003.001	0	SROUBENÍ UHLÍKOVÉ / ANGLE BOLTING / WINKELVERSCHRAUBUNG	P-RSWS-08LR	2
12	96.002.035	0	KROUZEK O DYNAMICKÝ / /	22x3	1
13	96.002.055	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	96.002.055	2
14	96.042.007	0	TESNĚNÍ / SEALING / DICHTUNG	32x40x6,3	1
15	96.060.009	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	32x40x5x6	1
16	96.084.003	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GR 6500320	1
17	96.084.013	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	GP6500900 T47	2
18	96.900.027	0	TESNĚNÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG	PT0200900	1
I. ZRUS. SROUB M10x35(90.001.25.049) A NAHR.M12x35(90.001.25.059). ZRUS. 1xPODLOŽKA 10.5(90.150.50.006) A NAHR.PODLOŽKOU 13(90.150.50.007). 005/ZM014 19.1.2012 SLEZACKOVA					

I. ZRUS. SROUB M10x35(90.001.25.049) A NAHR. M12x35(90.001.25.059). ZRUS. 1xPODLOŽKA 10.5(90.150.50.006)
A NAHR. PODLOŽKOU 13(90.150.50.007). 005/ZM014 19.1.2012 SLEZACKOVA

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

7.10.18. Vynašeč třískový / Chip extractor / Spanabüh rung



 BOMAR...	NÁZEV SOUSTAVY VYNAŠEČ TRÍSKOVÝ	ČÍSLO SOUSTAVY 201.V317-000	STROJ IN360
	Konstruoval: HLADIL		
	Datum: 25. 11. 2016		
	Meritko: 1:100		

7.10.19. Vynašeč třískový / Chip extractor / Spanabühung
Kusovník / Piece list / Stückliste

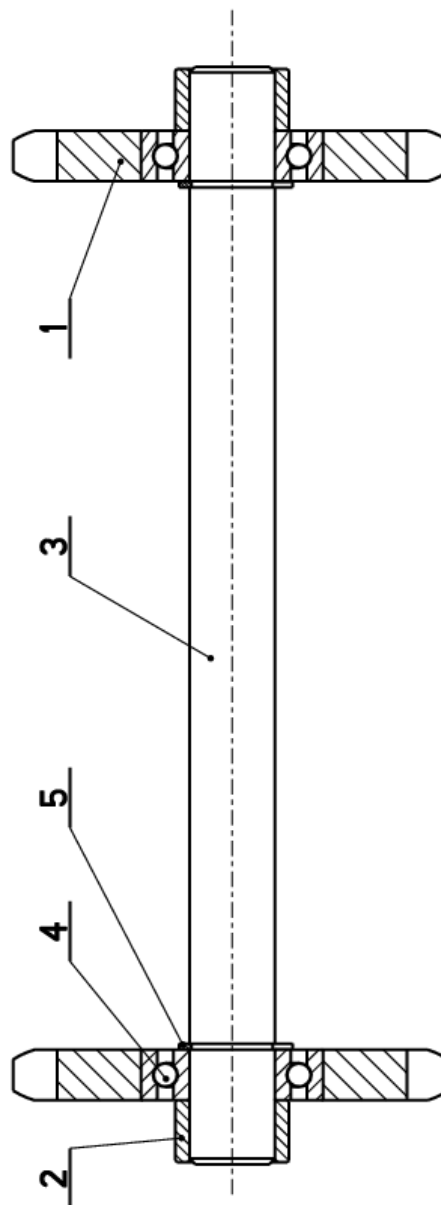
Císlo Sestavy 201.V317-000		Ver. 1	Název sestavy VYNAŠEČ TRÍSKOVÝ/CHIP EXTRACTOR/SPANABÜHRUNG	
Poz.	Objednávací číslo	Ver.	Název položky	Ks
1	201.6017-103	0	KOLO NAPÍMACÍ / TENSIONING WHEEL / UMLENKRAD	1
2	201.6017-104	2	RETEZ PŮHOVÝ / DRIVE BELT / ANTRIEBSKETTE	10
3	201.V317-050	0	POHON / DRIVE / ANTRIEB	1
4	30.6017-121	0	SÍTO / SIEVE / GITTERWERK	1
5	30.9010-003	0	DRŽÁK / HOLDER / HALTER	2
6	30.V317-001	4	KORYTO / CHANNEL / RINNE	1
7	30.V317-003	0	KRYT / COVER / ABDECKUNG	1
8	30.V317-009	0	KRYT / COVER / ABDECKUNG	1
9	31.7217-032	1	TESNĚNÍ / SEALING / DICHTUNG	1
10	49.200.018	0	RETEZ / CHAIN / KETTE	2
11	90.005.55.012	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	2
12	90.100.55.004	0	MATICE / NUT / MUTTER	2
13	94.015.002	0	NOHA / LEG / STÄNDER	2

1.ZRUS.KRYT 30.V317-008 A NAHR.SVARKEM 30.V317-009.139/ZMI82 8.6.2012 KOHUT

Císlo 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/Stock size/Abmessung

7.10.20. Kolo napínací / Tensioning wheel / Umlenkrad

Číslo Sestavy 201.6017-103		Ver. 0	Název sestavy KOLO NAPÍNACÍ / TENSIONING WHEEL / UMLENKRAD	
Poz.	Objednávací číslo	Ver.	Název položky	Ms
1	30.6017-111	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	2
2	30.6017-114	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	2
3	30.6017-117	0	HRDEL / SHAFT / WELLE	1
4	95.001.006	0	LOŽISKO KULÍKOVÉ / BEARING / LAGER	2
5	95.800.006	0	KROUZEK POJIST. VNEJŠÍ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	2

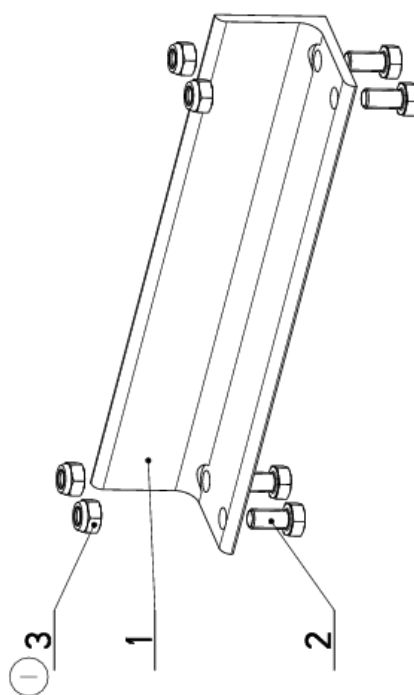


7.10.21. Řetěz pohonový / Drive belt / Antriebskette

Císlo Sestavy		Ver.		Název sestavy	
201.6017-104		2		RETEZ POHONOVY/DRIVE BELT/ANTRIEBSKETTE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6017-115	0	STERAC / WIPER / ABSTREIFER	PROFIL 30x30x3	1
2	90.005.55.002	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M5x10	4
3	90.100.08.005	0	MATICE / NUT / MUTTER	M5	4

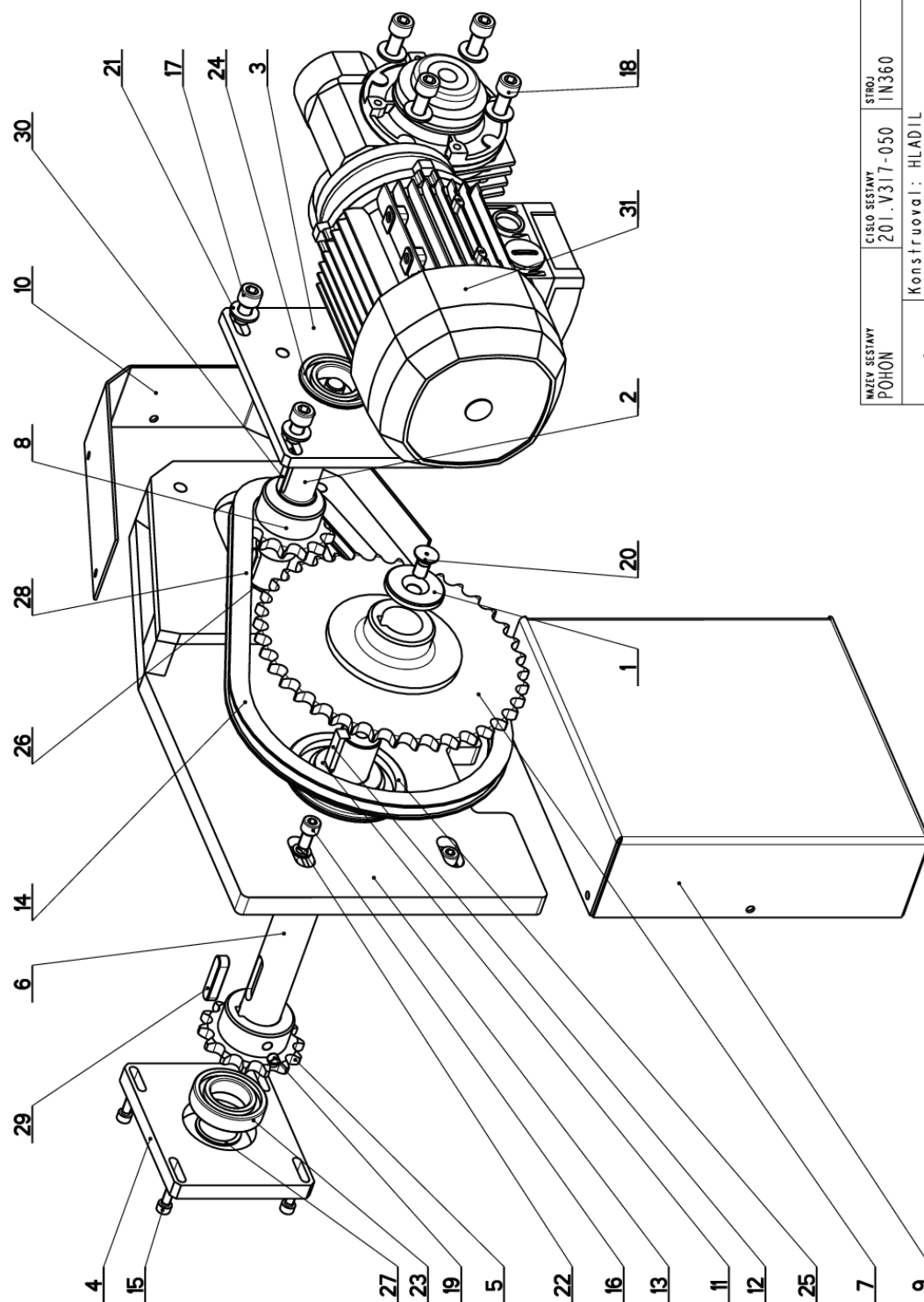
1. ZRUS. 4xPODLOZKA PRUŽNA 5.1 (90.158.50.001), ZRUS. 4xMATICE PRESNA 90.100.55.003 A NAHAZENÁ 4xMATICE SAMOJISTICI 90.100.08.005.
412/ZM400 20.11.2008 SLEZACKOVA

2. ZRUS. RETEZ 30.6017-116. 286/ZM386 23.11.2016 SLEZACKOVA



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

7.10.22. Pohon / Drive / Antrieb



NÁZEV SESTAVY POHON	CÍSLO SESTAVY 201.V317-050	STROJ IN360
Konstruoval: HLADIL		
Datum: 18. 10.2010		
Meritko: 2:5		

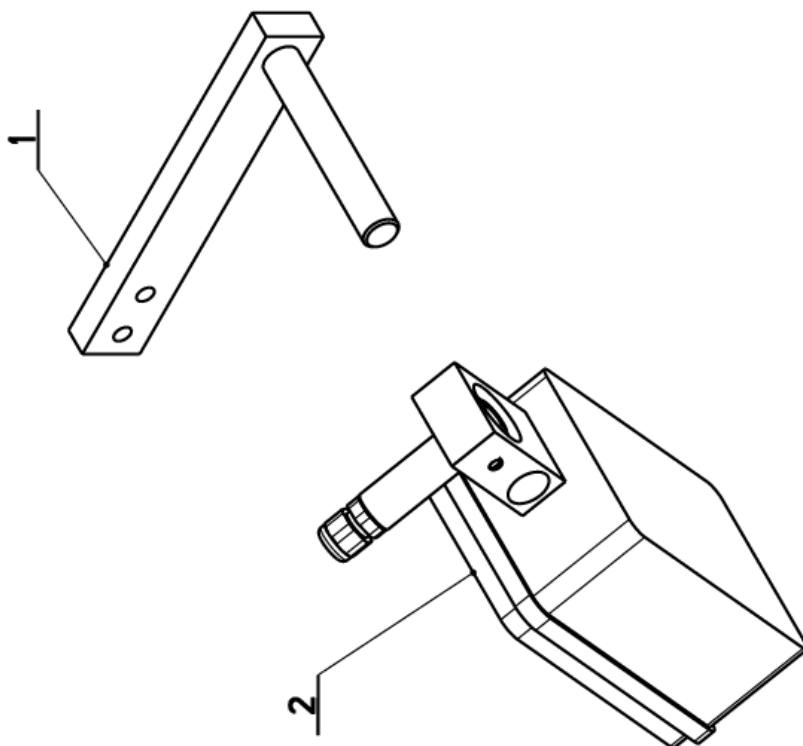
7.10.23. Pohon / Drive / Antrieb
Kusovník / Piece list / Stückliste

Císlo Sestavy 201.V317-050		Ver. 0	Název sestavy POHON/DRIVE /ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1502-465	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	d 45	1
2	30.6017-203	1	HRDEL / SHAFT / WELLE	D 32	1
3	30.6017-206	0	DESKA / BOARD / PLATTE	HR 130x10	1
4	30.6017-207	0	DESKA / BOARD / PLATTE	HR 130x15	1
5	30.6017-208	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	RET.KOLO z=14	2
6	30.6017-209	0	HRDEL / SHAFT / WELLE	D 30	1
7	30.6017-211	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	100-1	1
8	30.6017-212	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD		1
9	30.6017-213	0	KRYT / COVER / ABDECKUNG	P2x335x390	1
10	30.6017-214	0	KRYT / COVER / ABDECKUNG	P2x58x511	1
11	30.6017-215	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	D 50	1
12	30.6017-218	0	PERO / SPRING / FEDER	PERO 8x10	1
13	30.V317-051	0	PŘÍRUČKA / FLANGE / FLANSCH	SVARENÝ	1
14	49.200.027	0	RETEZ / CHAIN / KETTE	100-1	1
15	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	4
16	90.001.25.031	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	4
17	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	4
18	90.001.25.106	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x22	4
19	90.003.20.010	0	SROUB STAVEČNÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8x10	2
20	90.011.27.008	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	1
21	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 10,5	8
22	90.163.00.002		PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 8	4
23	95.001.009	0	LOŽISKO / BEARING / LAGER	6006 2RS	1
24	95.003.005	0	LOŽISKO / BEARING / LAGER	6006AN	1
25	95.003.006	0	LOŽISKO / BEARING / LAGER	6308AN	1
26	95.800.012	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 25	1
27	95.800.013	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 30	1
28	95.810.007	0	PERO TESNÉ / SPRING / FEDER	PERO 8x7x25	1
29	95.810.010	0	PERO TESNÉ / SPRING / FEDER	PERO 10x8x40	2
30	95.810.016	0	PERO TESNÉ / SPRING / FEDER	PERO 8x7x40	1
31	99.001.073	0	PŘEVODOVKA / TRANSMISSION / GETRIEBE	VF 49 L2 F2 60 P71 B14 B8	1

Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver./Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Pos./Position/Position;
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7.10.24. Laser-ukazovátka / Laser / Laser

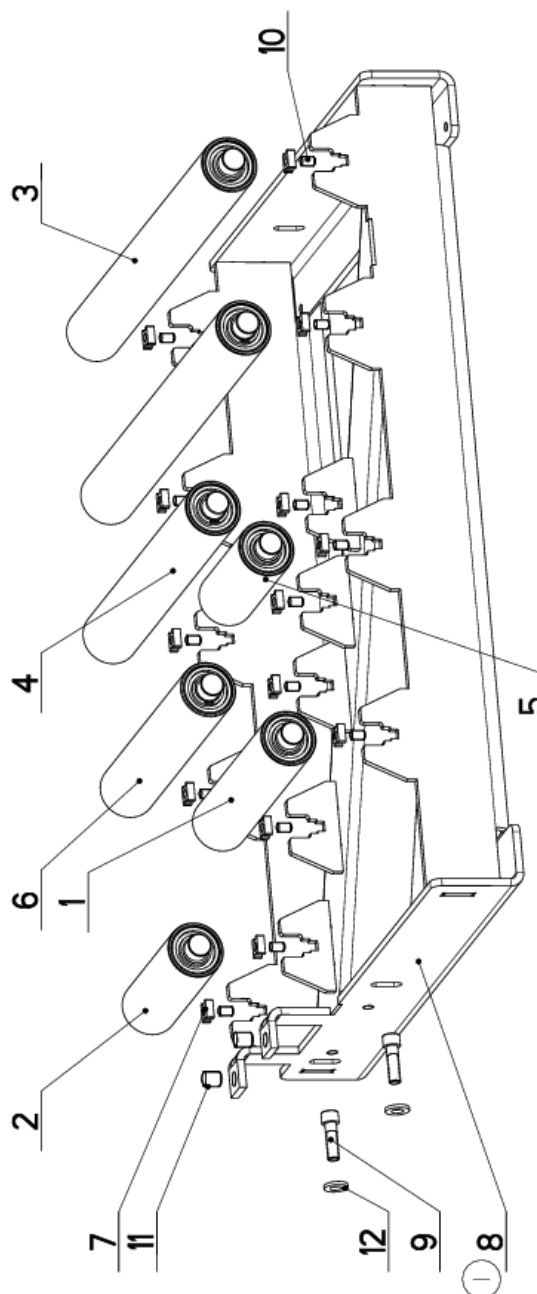
Číslo Sestavy 202.6120-101		Ver. 0	Název sestavy LASER-UKAZOVATKO/LASER/LASER	
Poz.	Objednací číslo	Ver.	Název položky	Rožmer
1	30.6120-001	0	DRŽAK / HOLDER / HALTER	DRŽAK LASERU
2	202.5010-000	0	LASER-UKAZOVATKO / LASER / LASER	
				Ks
				1
				1



7.10.25. Díl propořavací / Connecting part / Verbindungsteil

Cislo Sestavy 201.Y317-300		Ver. 1	Název sestavy Díl propořavací / CONNECTING PART / VERBUNDUNGSTEIL			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	201.Y317-120	0	VALEC / ROLLER / ZYLINDER		1	
2	201.Y317-130	0	VALEC / ROLLER / ZYLINDER		1	
3	201.Y317-140	0	VALEC / ROLLER / ZYLINDER		2	
4	201.Y317-150	0	VALEC / ROLLER / ZYLINDER		1	
5	201.Y317-170	0	VALEC / ROLLER / ZYLINDER		1	
6	201.Y417-120	0	VALEC / ROLLER / ZYLINDER		1	
7	30.1517-841	0	MATICE / NUT / MUTTER	P 8x19	14	
8	30.Y317-302	1	RAM / FRAME / RAHMEN		1	
9	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x40	2	
10	90.002.20.014	0	SROUB STAVECÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M10x16	14	
11	90.002.20.019	0	SROUB STAVECÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M16x20	2	
12	90.163.00.007	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	NORD-LOCK	2	

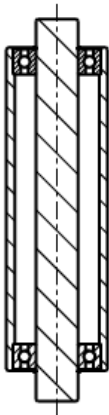
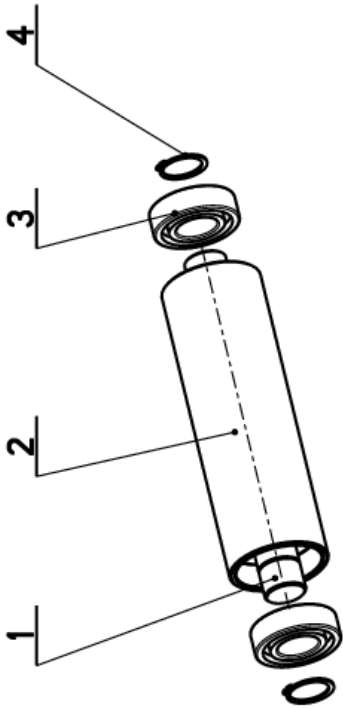
.1. ZRUSEN RAM 30.Y317-301 A NAHR.30.Y317-302. 192/ZM226. SLEZACKOVA



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

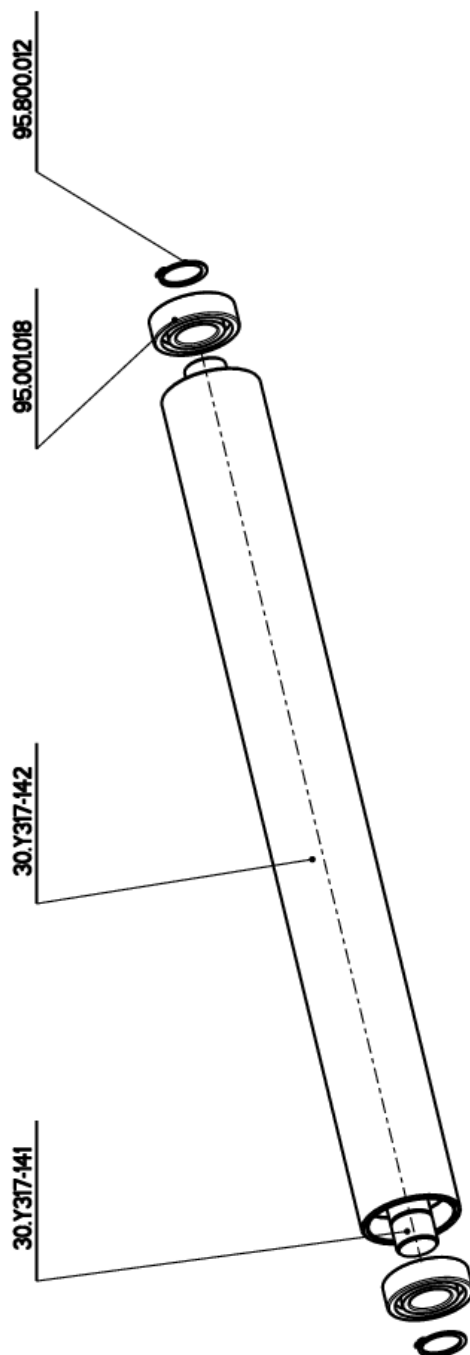
7.10.26. Válec / Roller / Zylinder

Cislo sestavy 201.Y317-130		Ver. 0	Název sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y317-131	0	CEP / LUG / BOLZEN	d 25	1
2	30.Y317-132	0	TRUBKA / TUBE / ROHR	TR 60x5	1
3	95.001.018	0	LOŽISKO / BEARING / LAGER	6205 2RS	2
4	95.800.012	0	KROUZEK POJIST.VNĚJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTNÝ KROUZEK 25	2



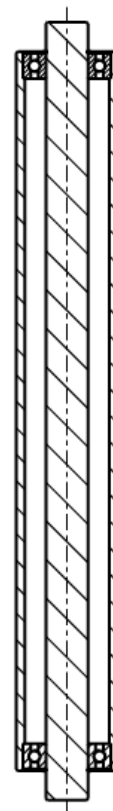
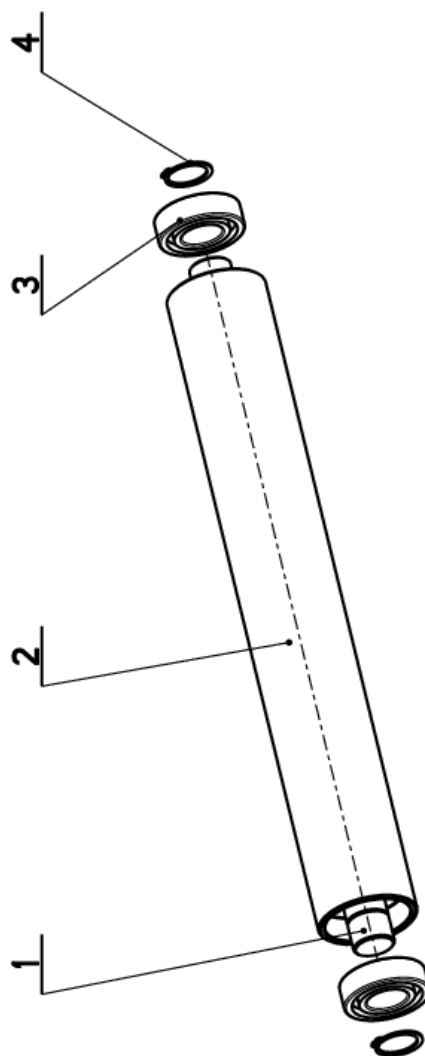
7.10.27. Válec / Roller / Zylinder

Císlo Sestavy 201.Y317-140		Ver. 0	Název sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y317-141	0	CEP / LUG / BOLZEN	d 25	1
2	30.Y317-142	0	TRUBKA / TUBE / ROHR	TR 60x5	1
3	95.001.018	0	LOŽISKO / BEARING / LAGER	6205 2RS	2
4	95.800.012	0	KROUZEK POJIST.VNEJŠ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 25	2



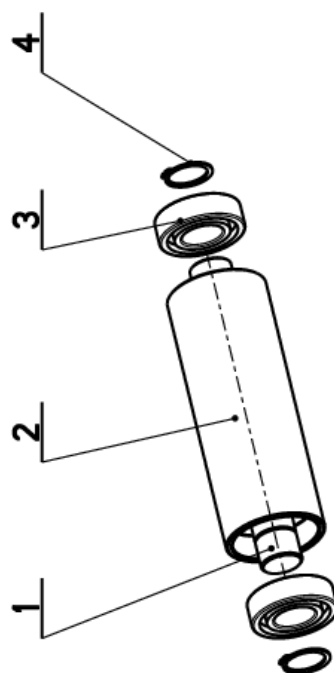
7.10.28. Válec / Roller / Zylinder

Cislo Sestavy 201.Y317-150		Ver. 0	Název sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	30.Y317-151	0	CEP / LUG / BOLZEN	d 25	1
2	30.Y317-152	0	TRUBKA / TUBE / ROHR	TR 60x5	1
3	95.001.018	0	LOŽISKO / BEARING / LAGER	6205 2RS	2
4	95.800.012	0	SEGR HRDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AÜßEN	POJISTNÝ KROUZEK 25	2



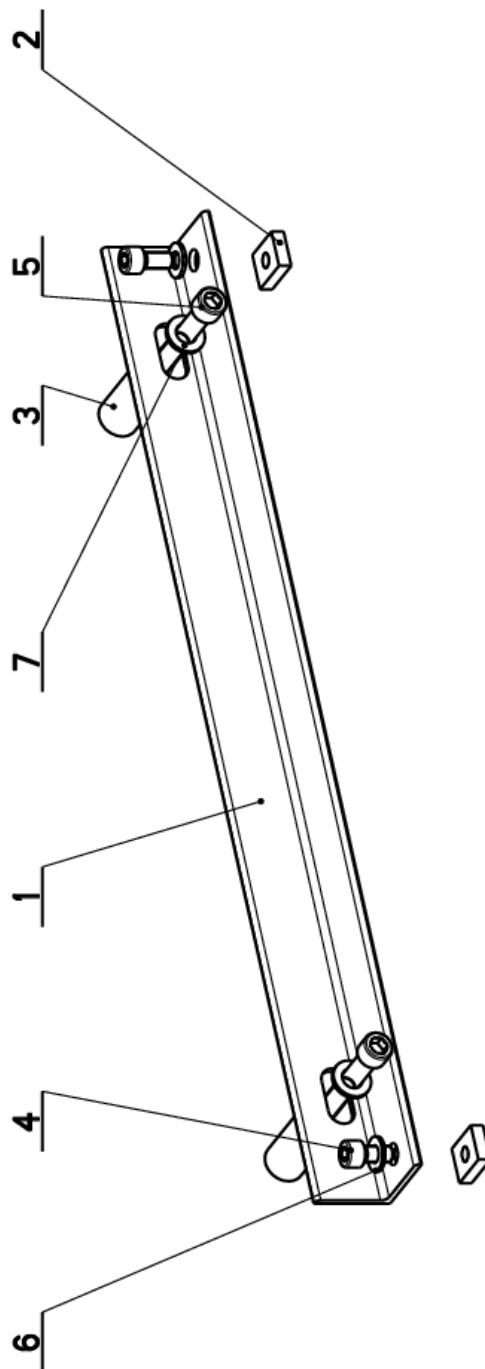
7.10.29. Válec / Roller / Zylinder

Císlo Sestavy 201.Y317-170		Ver. 0	Název sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y317-171	0	CEP / LUG / BOLZEN	d 25	1
2	30.Y317-172	0	TRUBKA / TUBE / ROHR	TR 60x5	1
3	95.001.018	0	LOŽISKO / BEARING / LAGER	6205 2RS	2
4	95.800.012	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 25	2



7.10.30. Díl připojovací / Attachment part / Anschlusssteil

Cislo sestavy 201.D317-000		Ver. 0	Název sestavy Díl připojovací / Attachment part / Anschlusssteil	
Poz.	Objednací číslo	Ver.	Název položky	Ks
1	30.D317-001	0	Díl připojovací / Attachment part / Anschlusssteil	1
2	30.X104-602	1	Příložka / Strap / Lasche	2
3	30.X194-102	0	Trubka / Tube / Rohr	2
4	90.001.25.046	0	Šroub imbus / Allen head bolt / Imbusschraube	2
5	90.001.25.064	0	Šroub imbus / Allen head bolt / Imbusschraube	2
6	90.150.50.006	0	Podložka / Washer / Unterlegscheibe	2
7	90.150.50.007	0	Podložka / Washer / Unterlegscheibe	2



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