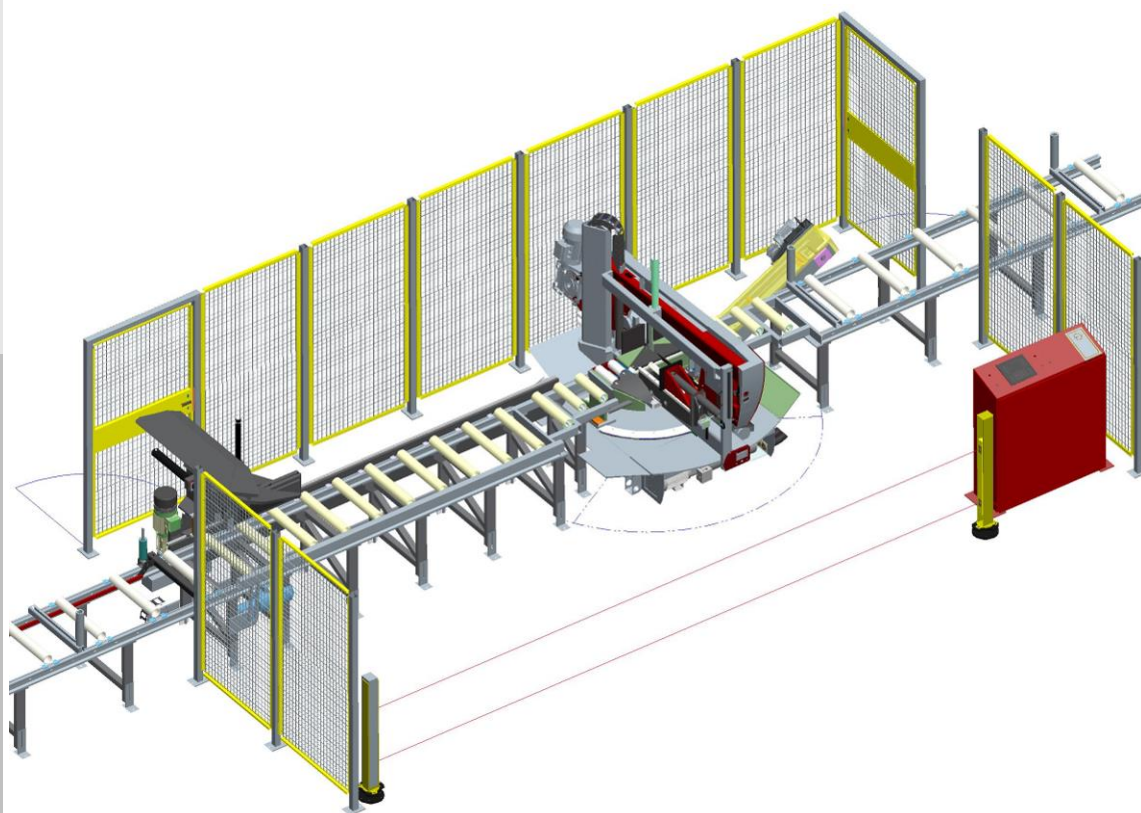


Series **Individual Automatic**



Individual 520.360 DGANC

Operating instructions

Book 1

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

Seriové číslo / Serien Nummer / Serial Number _____

Service and information

Your BOMAR dealer:

Direct BOMAR contact:

BOMAR spol. s r.o.
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62700 Brno
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www: <http://www.bomar.cz>

We are available:

Mondays to Fridays

7⁰⁰ – 16⁰⁰

Version:

2.12 / June 2021
rev. 1

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

EC/EU Declaration of Conformity

1) 2) We:

BOMAR, spol. s r.o.

Těžební 1236/1

627 00 Brno, Czech Republic

Id. No: 48908827

declare herewith

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

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

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

Name: **Band Saw**

Type : **Individual 520.360 DGANC**

Serial number: 011 – 100 000

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

Product data

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.

Pneumatic ☐ NO ☒ YES ☐

Pneumatic ☐ NO ☒ YES ☐

Technical data:
Cutting rate 20–120 m.min-1
Cutting angle -60° až 60°
Total dimensions in mm (lxwxh) 5500x2310x1950
Weight 3300 kg

Documentation:

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

The device meets relevant requirements of the given directives:

2006/42/EC

2014/30/EU

The applied harmonized standards, National standards and technical specifications:

ČSN EN ISO 12100:2011

ČSN EN ISO 16093:2018

ČSN EN ISO 13857:2021

ČSN EN ISO 4413:2011

ČSN EN 60204 -1 ed.3:2019

ČSN EN 55011 ed.4+A1:2017

ČSN EN 61000-6-2 ed.3:2006

ČSN EN 61000-6-4 ed.2+A1:2011

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.

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



Brno, 02.06.2021

Point of issue, datum

Alfred Pichlmann, Managing Director

Name and function of the responsible subject, signature

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

2) Person authorized to complete the technical documentation

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 r.o. 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 r.o. have been declared "identical" to a safety device, as offered by BOMAR, spol. s r.o. or its agents.

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This manual consists from two books.

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1. **Safety notes**

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

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

Attention!

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

1.1. Machine determination

The band saw **Individual 520.360 DGANC** 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 -60° 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.

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

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 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.

The person, which is controlling the machine using control equipments of the machine (control panel or another control equipment) mustn't oneself or with help of another persons manipulate with the machine or with the cutted or another way processed material.

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

- Check that the power cables are not damaged.
- 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

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

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

Always adhere to the safety instructions!

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

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

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

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

Attention!

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

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

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

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

Compliance with 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 Swarf conveyor (optional accessories)

Swarf conveyor is an optional accessory of the machine, this article is valid just for the machine which is equipped 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.

1.6. Safety instructions for laser barriers

Machine for its function using laser sensors for control purposes.

Laser sensor for control purposes is located on the feeder.

The laser beam is also produced with a device "laserliner" (optional accessory)

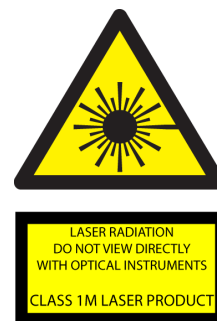
In the vicinity of the laser ray source is installed security sticker.

It is forbidden to look to the laser ray!

Safety classes of lasers:

1M – laser barriers

3R – Laserliner



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. 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*

1.7.1. 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.

1.8. Safety machine accessories

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

Enhanced risk!

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

1.8.1. Emergency Stop Switch

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

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

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

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



1.8.2. Protected space around the machine - Protective fencing

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

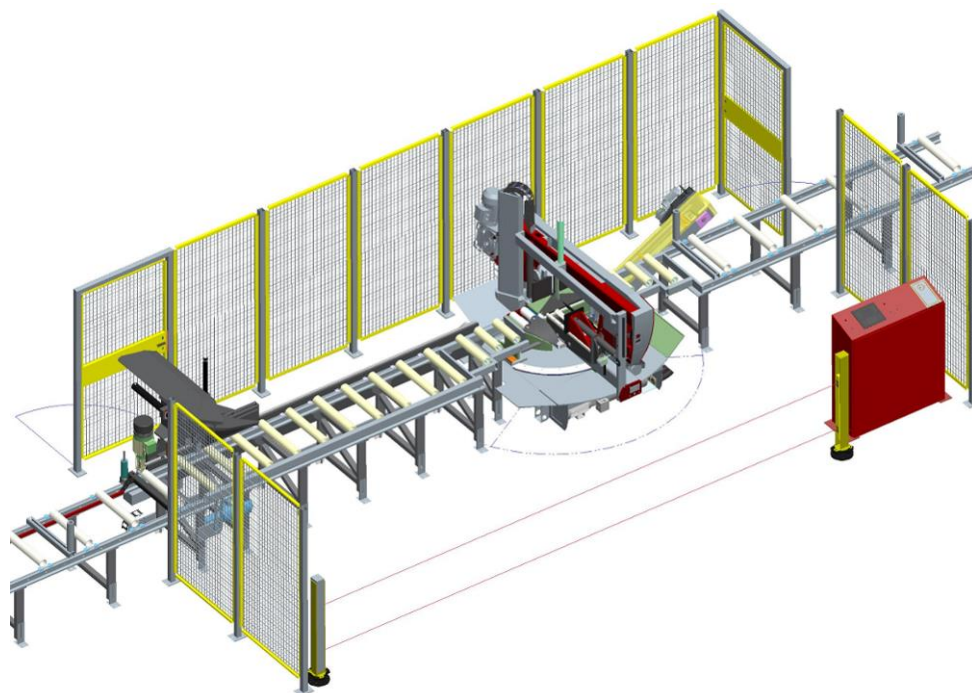
Caution!

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!

Proposal of the safety fence



Machinery space should be protected by a fence to a height of 2000 mm. + laser barrier.

1.8.3. Arm covers

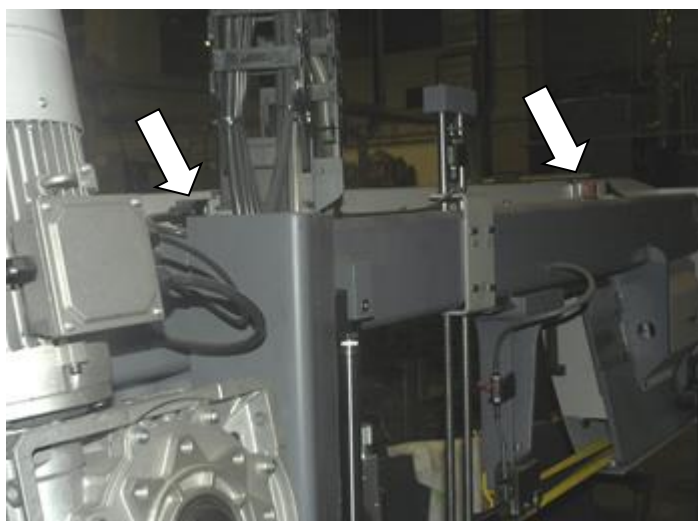
Left cover – It covers tightening wheel. If the cover is opened during operation, the limit switch is opened and the band saw is stopped. The band saw is not possible start in set mode.

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 started to the operation, when the covers are closed!

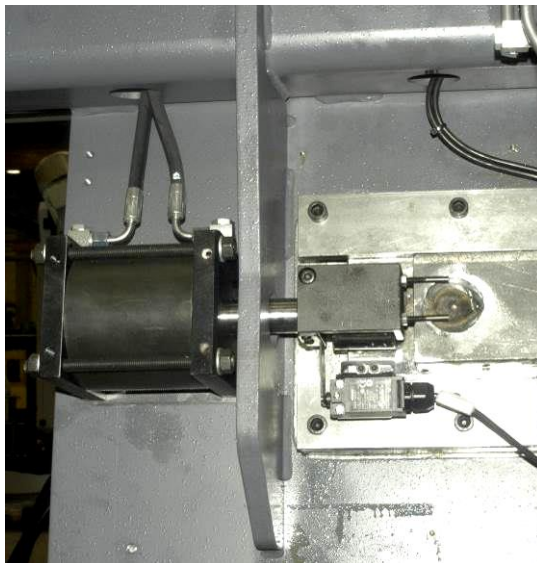


Two limit switches on saw arm control if covers are open or not.

1.8.4. 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.

Hydraulical saw band stretching



Mechanical saw band stretching



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

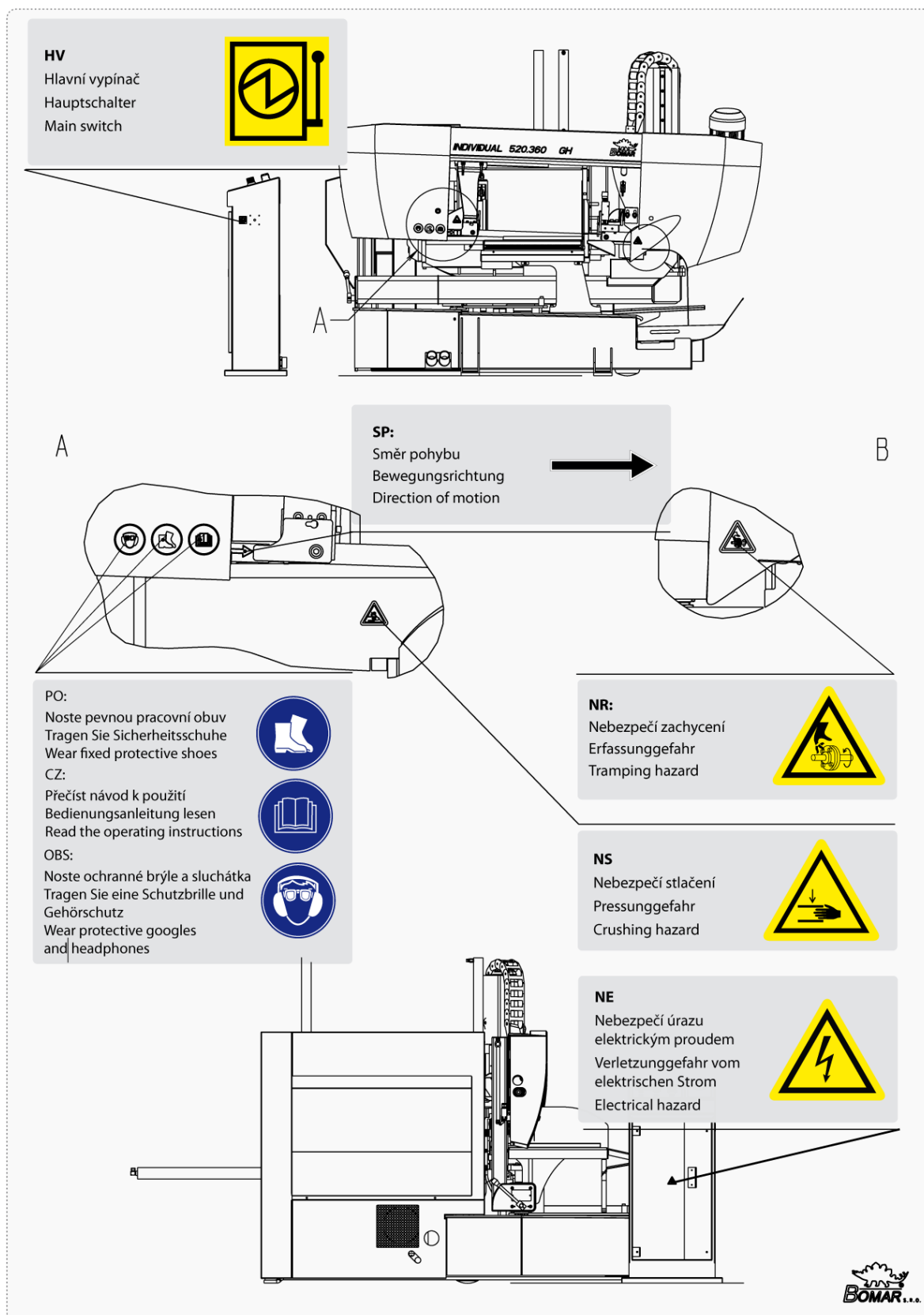
1.8.5. Band saw cover

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

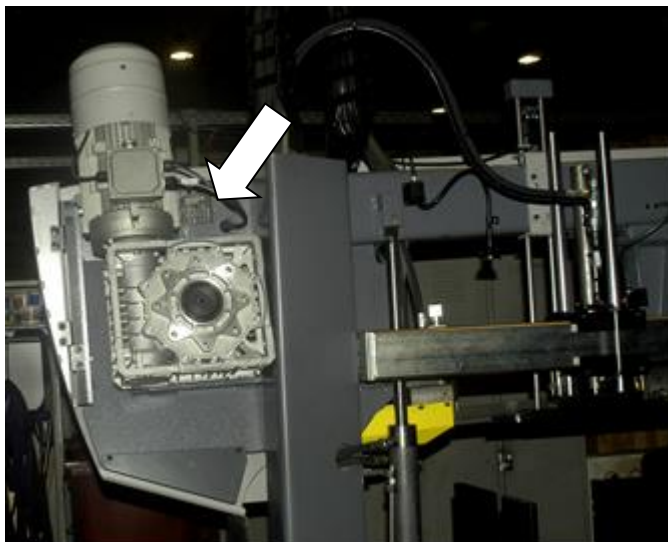


Never switch on the saw band driver if some from these covers is not mounted!

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



**1.10. Umístění štítku stroje /
Maschinenschild position /
Position of machine label**



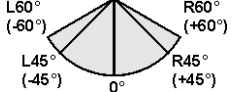
The machine label is located on the saw frame, between pillar and band drive.

2. **Machine documentation**

2.1. Technická data / Technische Daten / Technical data

Hmotnost stroje / Maschinengewicht / Machine weight:		LS 2300	LS 3300
•	Hmotnost / Gewicht / Weight	3300 kg	2650 kg
Rozměry stroje / Maschinengröße / Machine size :		LS 2300	LS 3300
•	Délka / Länge / Lenght	4900 mm	5900 mm
•	Šířka / Breite / Width	2330 mm	2330 mm
•	Výška / Höhe / Height	2100 mm	2100 mm
Elektrické vybavení / Elektrische Ausrüstung / Electical equipment:			
•	Napájení / Versorgungsspannun / Supply voltage	~3x 400 V/50 Hz, TN-C-S	
•	Příkon / Gesamtschlusswert / Total Input	9 kW	
•	Max.jištění / Max. Vorschaltsicherung / Max. Fuse	25 A	
•	Krytí / Schutzart / Protection	IP 54	
Akustický tlak / Schalldruckpegel / Acoustic pressure:			
•	Individual 520.360 DGANC	L _{Aeqv} =76,3 dB	
Pohon / Atrieb / Drive:			
•	Typ / Typ / Type	MDERA 100 4P B14	
•	Napájení / Versorgungsspannun / Supply voltage	~ 3x400 V, 50 Hz	
•	Výkon / Leistung / Output	4 kW	
•	Jmenovité otáčky / Motornenndrehzahl / Nominal speed	1420 m.min ⁻¹	
Podavač / Vorschub / Feeder:			
•	Napájení / Versorgungsspannun / Supply voltage	~ 3x400 V, 50 Hz	
•	Výkon / Leistung / Output	1,5 + 1,5 kW	
•	Jmenovité otáčky / Motornenndrehzahl / Nominal speed	1420 m.min ⁻¹	
Hydraulické zařízení / Hydraulikeinrichtung / Hydraulic equipment			
Podavač			
•	Typ / Typ / Type	205.X116-000	
•	Výkon / Leistung / Output	0,55/0,37 kW	
•	Tlak / Druck /Pressure	4 MPa	
Pila			
•	Typ / Typ / Type	SMA03 92.001.062 (19753500)	
•	Výkon / Leistung / Output	3 kW	
•	Tlak / Druck /Pressure	6,5 MPa	
Chladicí zařízení / Kühlung / Cooling equipment:			
•	Typ / Typ / Type	3COA4-12	
•	Obsah nádrže / Volumen vom Kühlmittel / Capacity	35 dm3	
•	MICRONISER	(na přání / möglich / optional) – ANO/JA/YES	
Rozměr pásu / Sägebandedimension / Band size:			
4780x34x1,1 mm			
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:			
20–120 m/min.			
Jeden Zdvih / Vorschublänge Einfachhub / One Upstroak:			
2300 mm (Individual 520.360 DGANC – 2300)			
3300 mm (Individual 520.360 DGANC – 3300)			
Max. Délka podání / Max. Vorschublänge / Max. feeding length:			
9999 mm			
Délka nejkratšího zbytku / Die Länge der kürzesten Rest / Lenght of shortest rest:			
220 / 0			

Řezné rozsahy / Schnittbereiche / Cutting size:

				
0°	Ø350 mm	520x350 mm	520x350 mm	350x350 mm
R 45°	Ø350 mm	360x300 mm	350x350 mm	350x350 mm
L 45°	Ø350 mm	370x200 mm	360x350 mm	350x350 mm
R 60°	Ø240 mm	240x200 mm	225x350 mm	240x240 mm
L 60°	Ø255 mm	255x330 mm	240x350 mm	255x255 mm

Warning:

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

Warning:

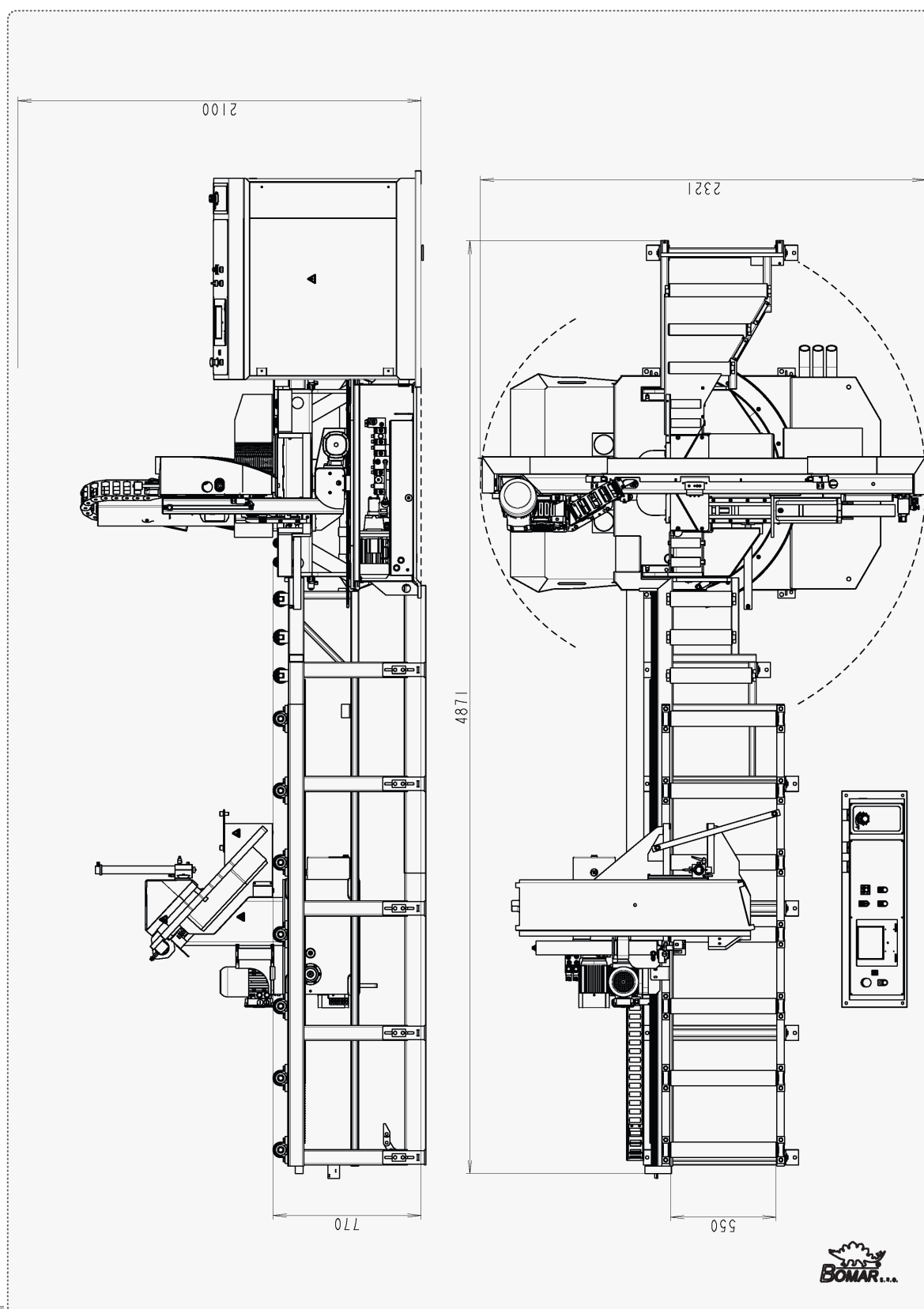
If top clamping is installed on machine workpiece height is 50 mm shorter.

Acoustic pressure level:

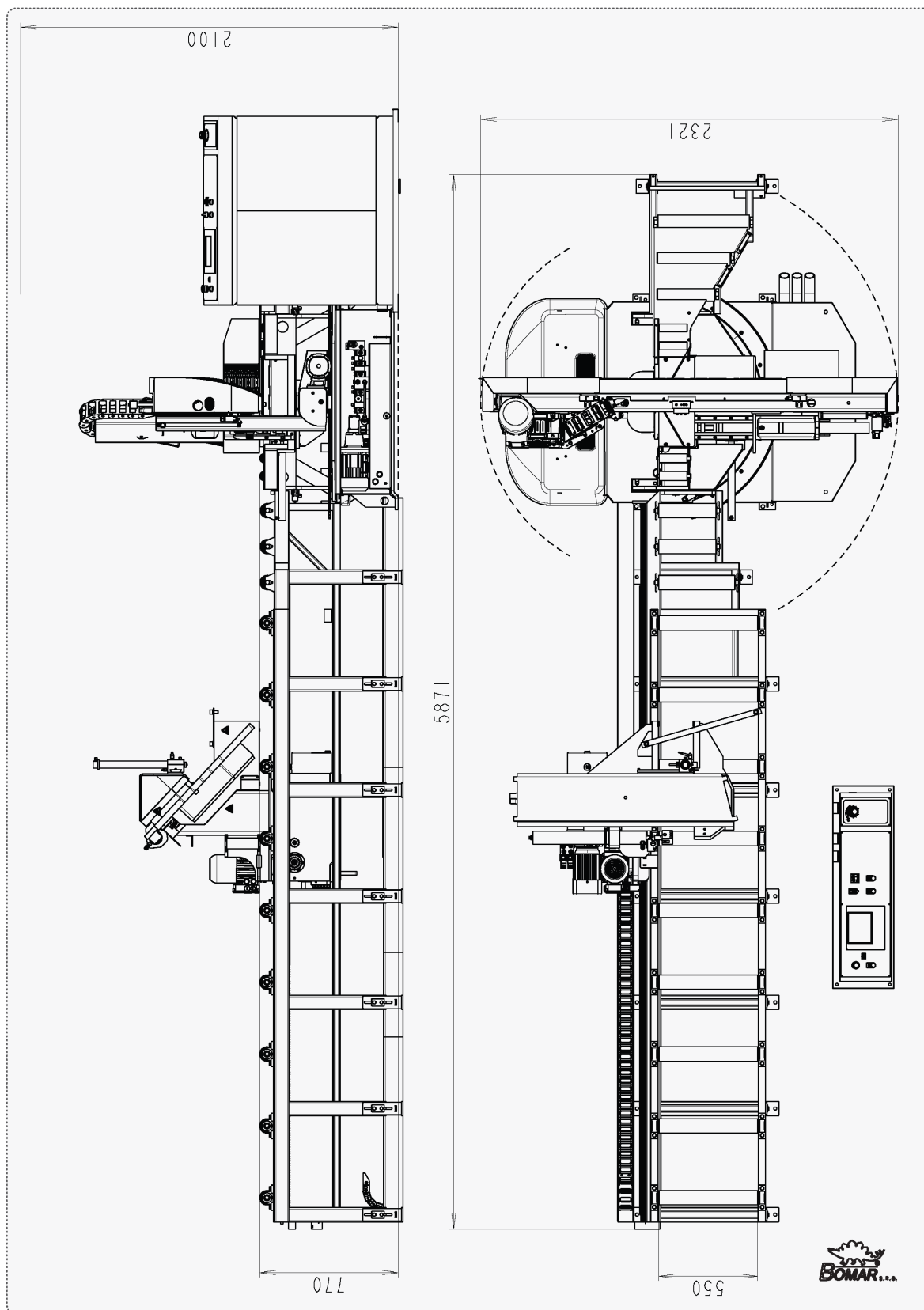
The equivalent level of the acoustic pressure A (noise) in the position of the operator is $L_{Aeq} = 76,3$ dB. The values are indicating the emission levels and may not present safety working levels. Among the factors, which influence the real values of the operator exposure, are properties of the workshop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

2.2. Rozměrové schéma / Aufstellzeichnung / Installation diagram

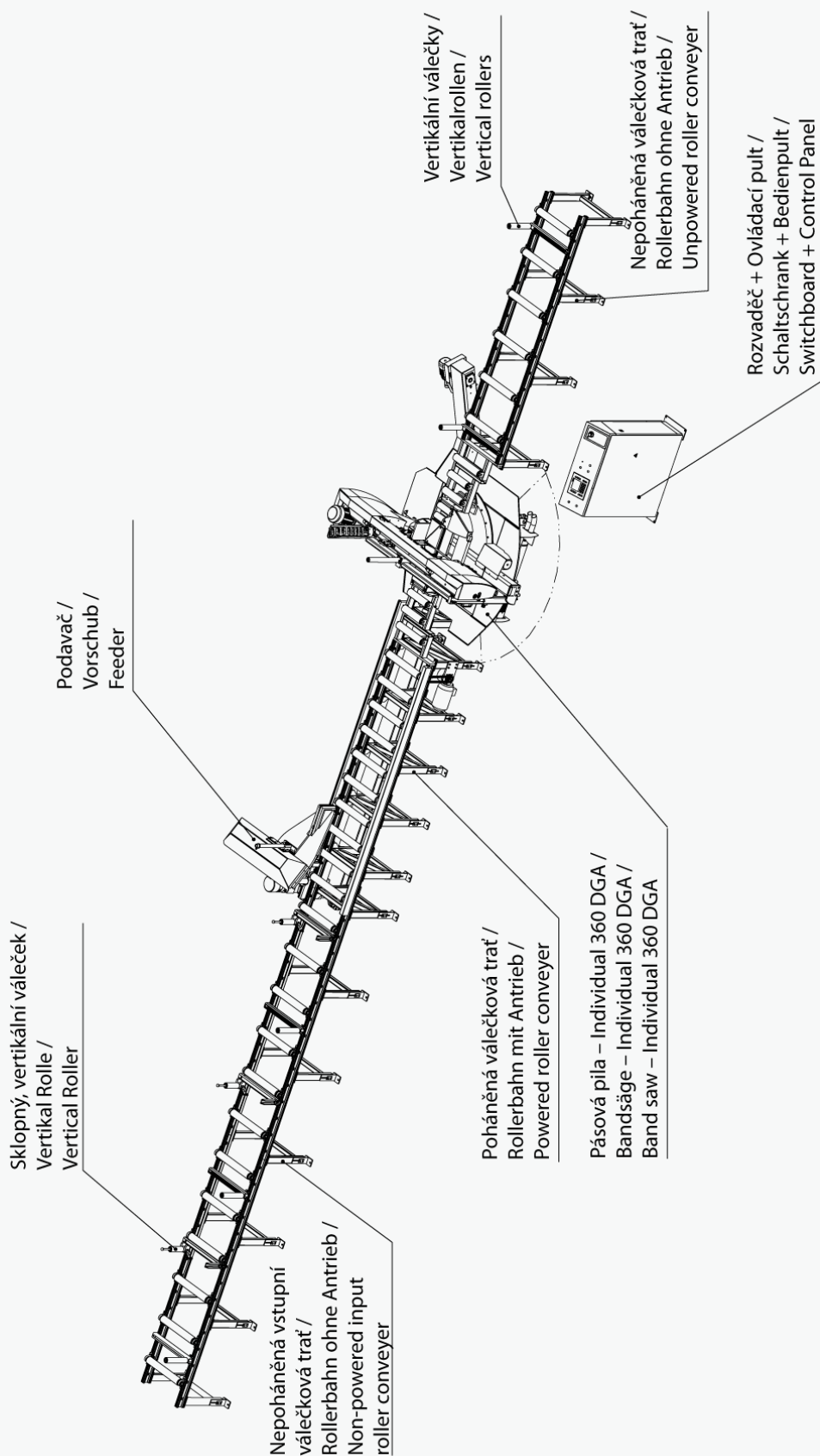
2.2.1. Individual 520.360 DGANC – 2300 mm



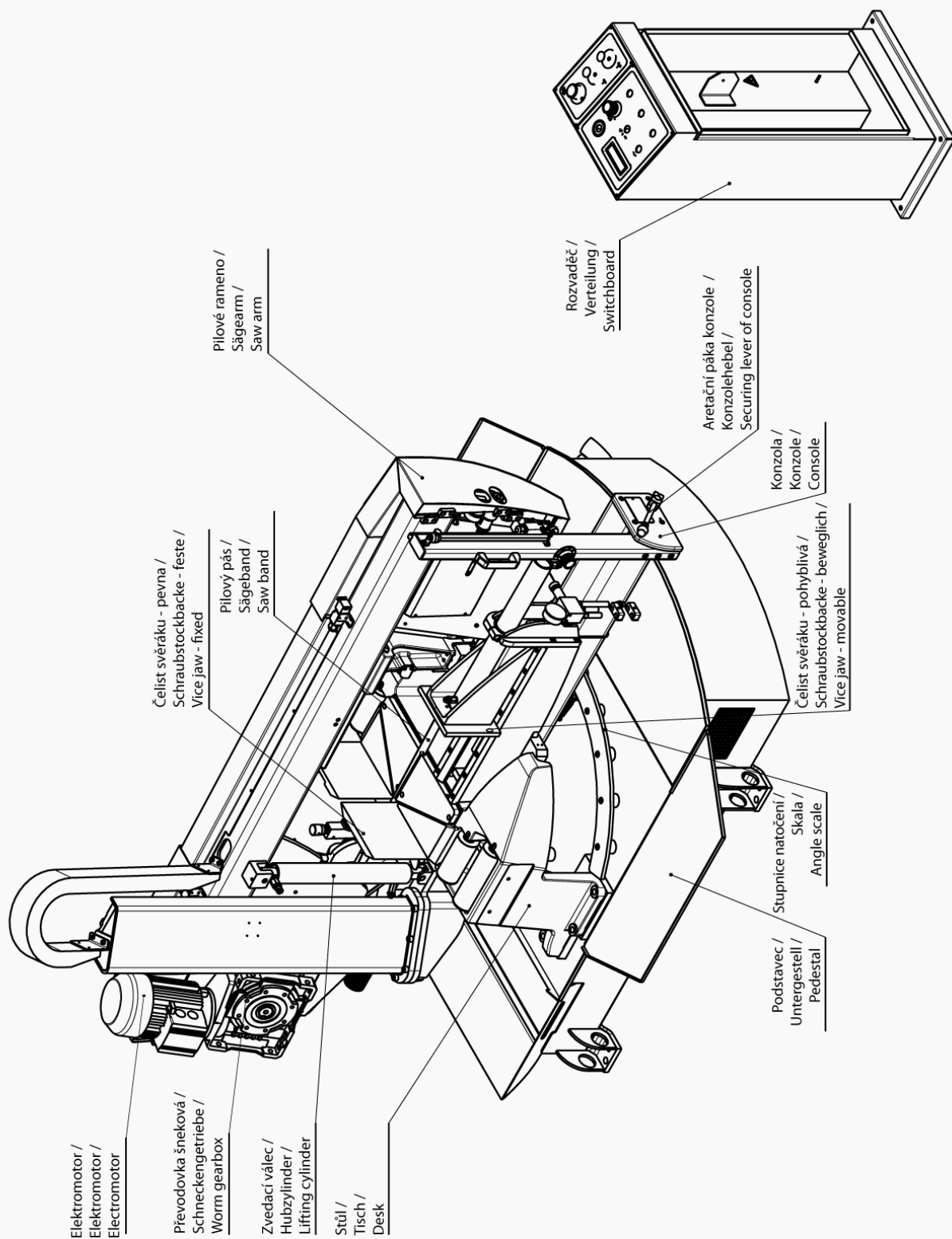
2.2.2. Individual 520.360 DGANC – 3300 mm



2.3. Popis / Beschreibung / Description – 1



2.4. Popis / Beschreibung / Description – 2



2.5. Transportation and stocking

2.5.1. Conditions for transportation and stocking

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

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

2.5.2. Transport and stocking preparations

Close the vice and thoroughly oil all blank surfaces.

Lower the saw frame to the lowest position.

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.

2.5.3. Transport and stocking

Handle the machine only with the hand pallet truck or the forklift truck! Use the lifters of the truck according to the Transport schema.

Make sure that the the forklift truck has sufficient capacity.

Make sure that the van or the trailer had 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.

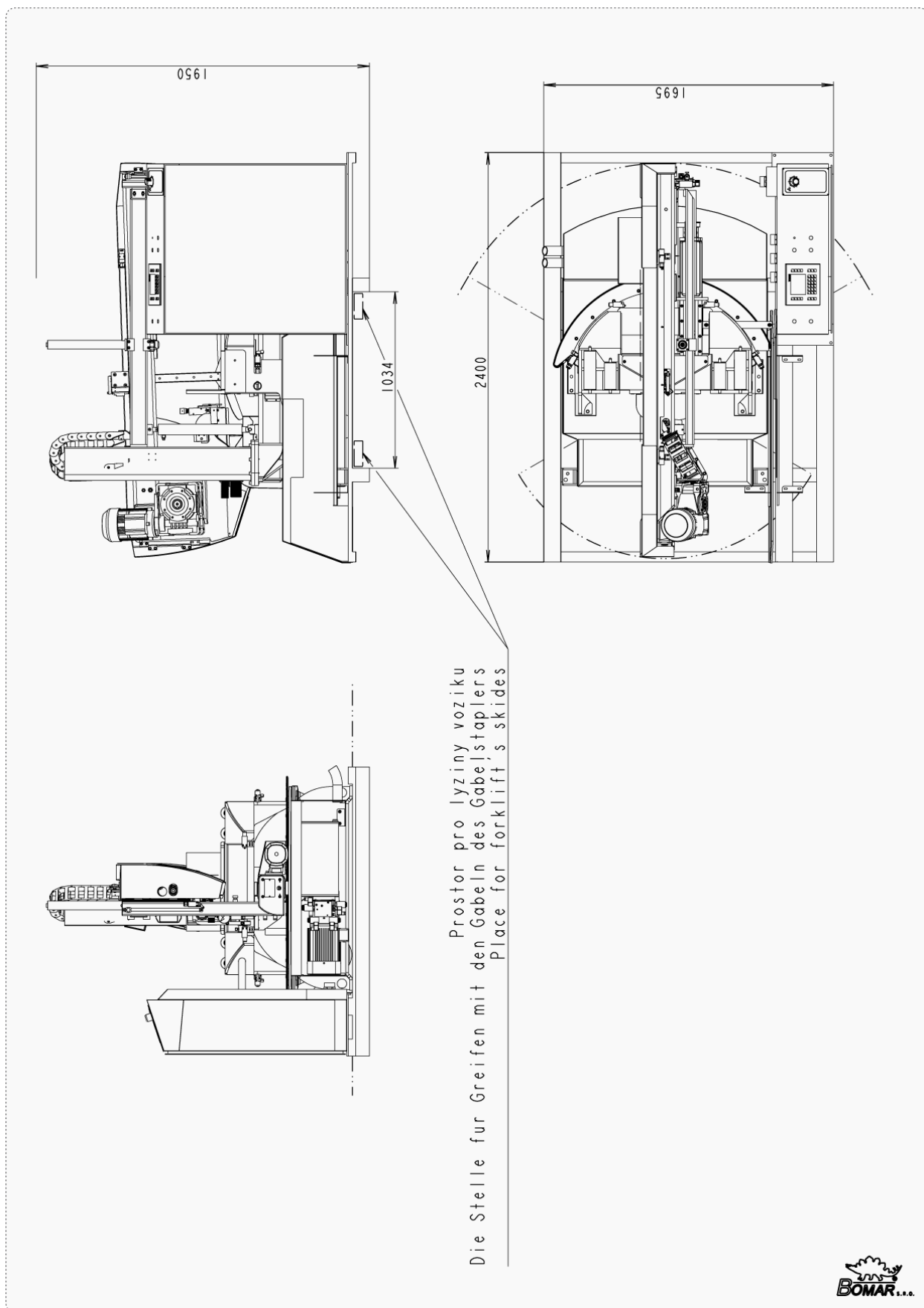
Be careful that the machine is not damaged during transportation.

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!

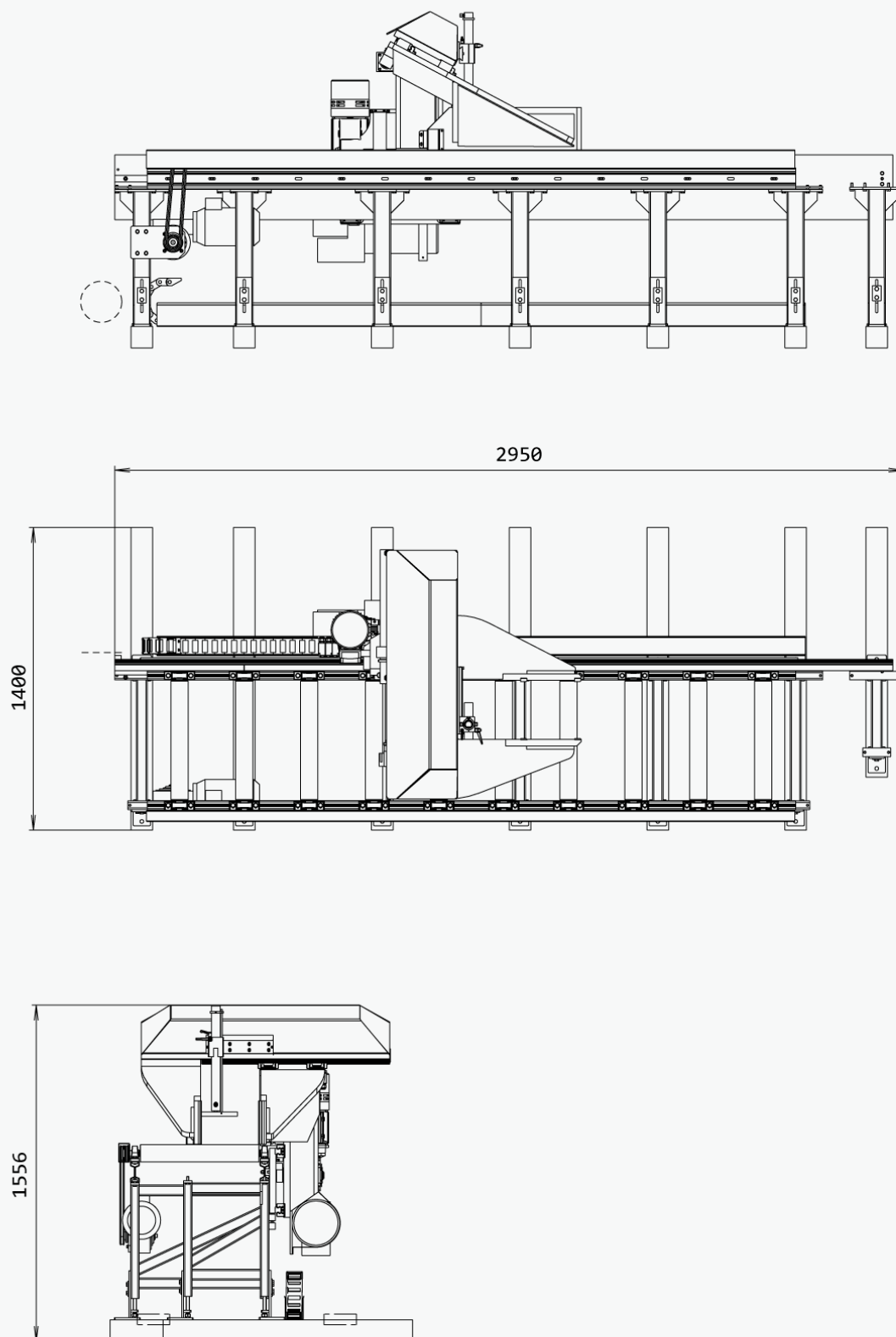
Store the machine only under the conditions specified in this manual to prevent damage to the machine

2.5.4. Transportní schéma / Transport schema / Transport diagram

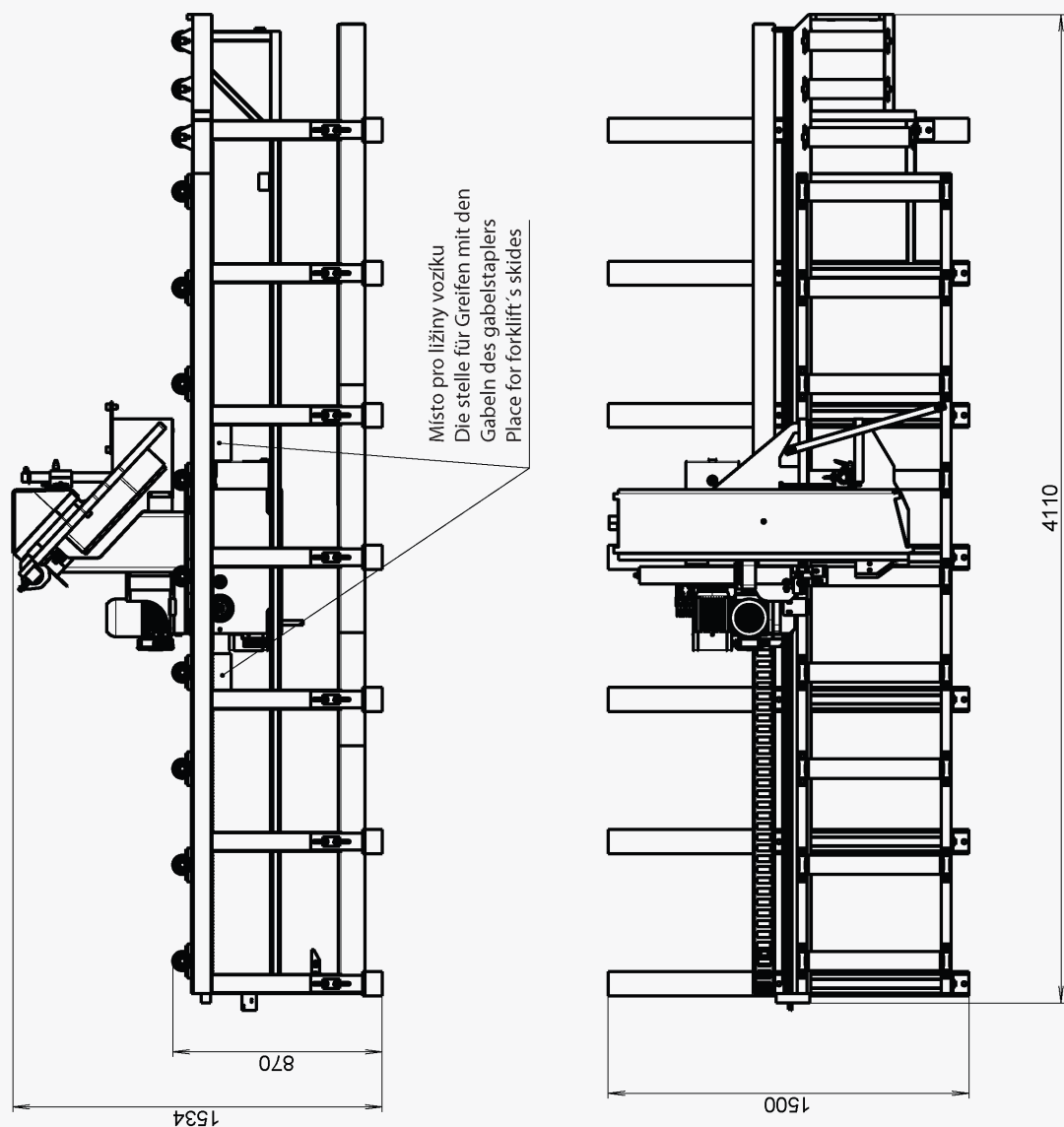
2.5.4.1. Pila / Bandsäge / Bandsaw



2.5.4.2. Podavač/ Vorschub/ feeder – 2300 mm



2.5.4.3. Podavač/ Vorschub/ feeder – 3300 mm



2.6. Activation

2.6.1. Machine working conditions

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

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

- At temperature air from **10°C to 40°C**, the temperature average during 24 hours must **not exceed over 35°C**.
- At relative dampness of the air in the extend from 30% to 95% (not concentrate)
- Altitude lower than 1000 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.

Attention!

If the ambient temperature drops below 15 ° C is required before operating the machine to have switch on hydraulic unit around 10 minutes and then made several motion few times (for example, in manual mode) by all hydraulic cylinders. The reason is to heat hydraulic oil to the operating temperature for proper function of the pressure switches (and choke).

2.6.2. 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.

If the hydraulic unit is outside the machine (the machine only connected hoses and cables), it needs to be placed and mounted on a solid basis (floors, etc.). The mounting holes are used on the bottom (bases) of the tank.

2.6.3. 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 DGANC – 3300 kg

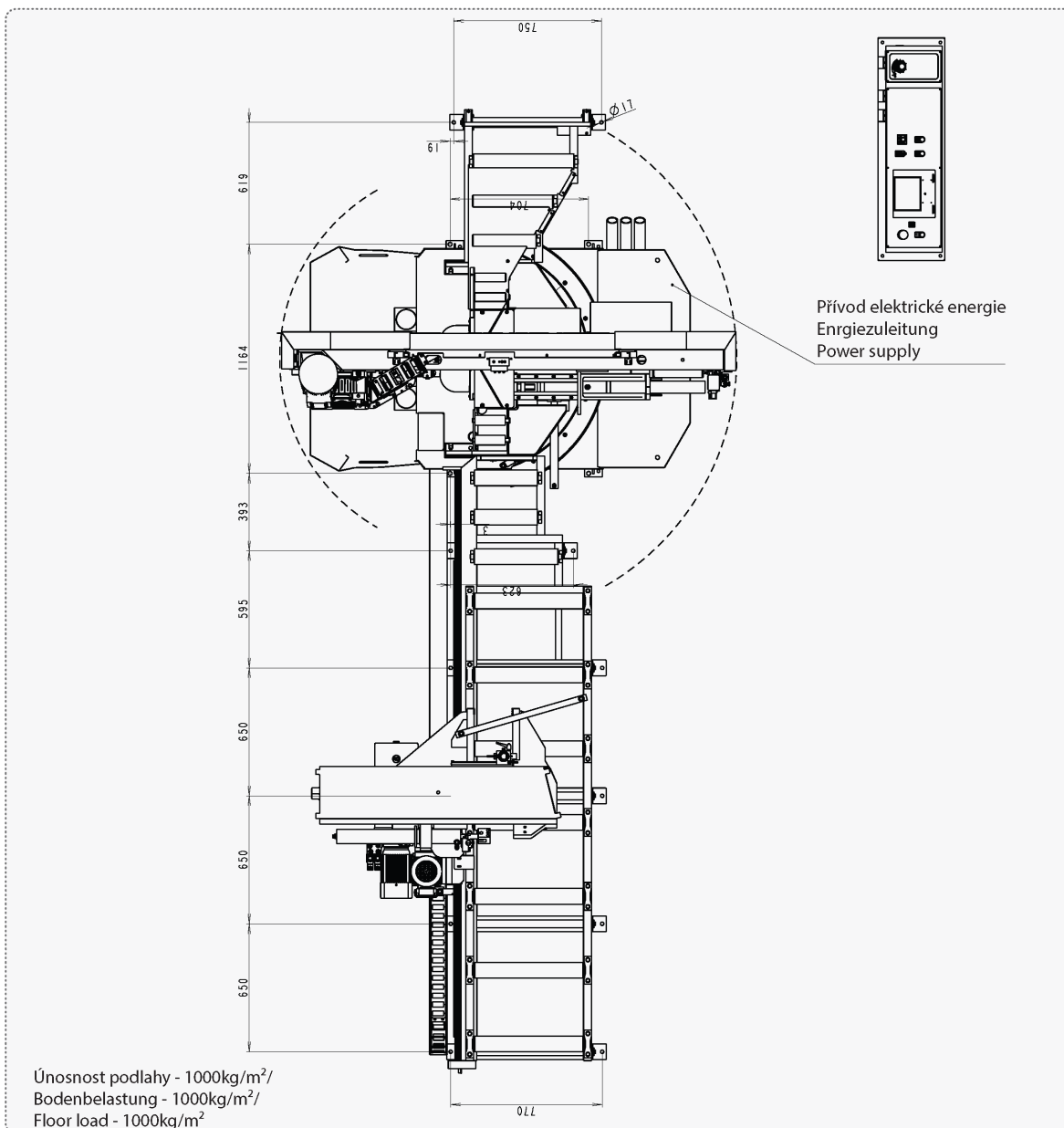
+ weight of accessories

+ 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.

2.6.4. Kotevní schémata / Verankerungsplan / Grounding schemes

2.6.4.1. Individual 520.360 DGANC – 2300 mm



Kotvící materiál / Verankerungsmaterial / Grounding material

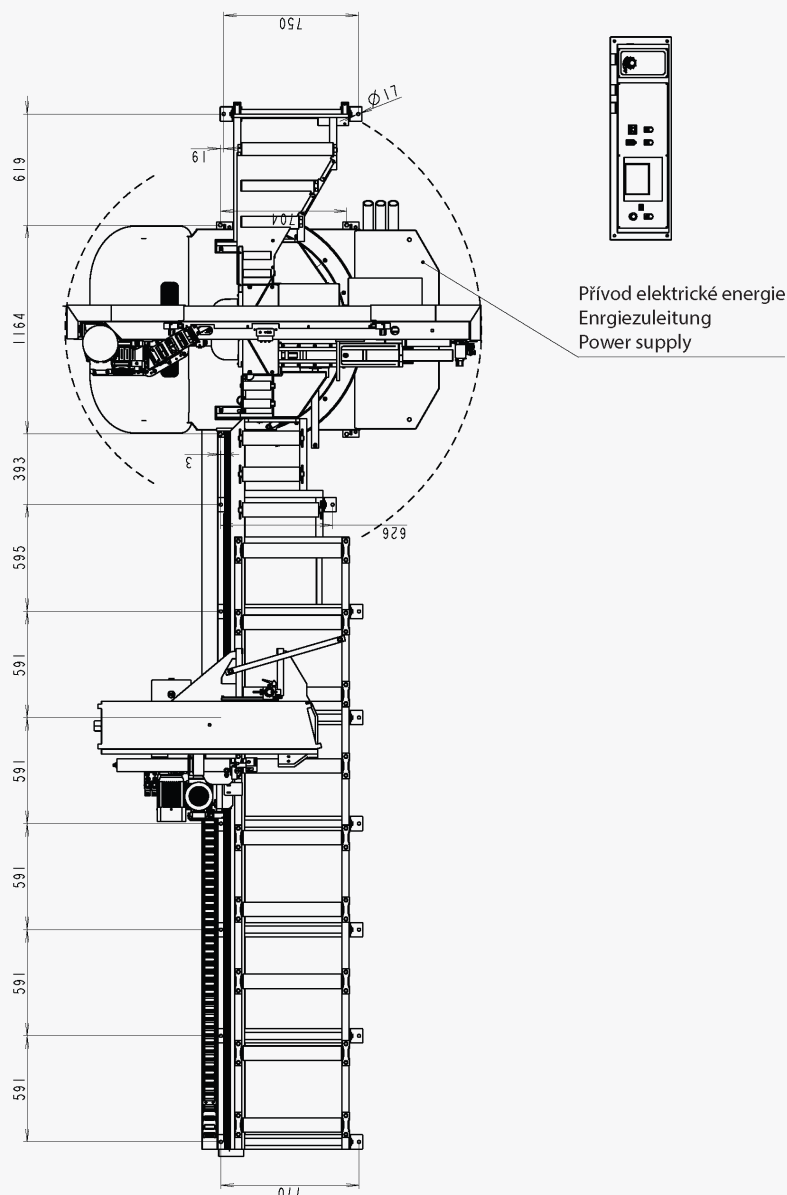
- 16x Hmoždina / Dübel / Plug
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 140 mm
- Šrouby / Schraube / Screws – 6x M16

- 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

2.6.4.2. Individual 520.360 DGANC – 2300 mm



Únosnost podlahy - 1000kg/m²/
Bodenbelastung - 1000kg/m²/
Floor load - 1000kg/m²

Kotvící materiál / Verankerungsmaterial / Grouding material

- 16x Hmoždina / Dübel / Plug
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 140 mm
- Šrouby / Schraube / Screws – 6x M16

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

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

± 10 mm / 1 m

2.6.5. 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.
- After multiple start-up.

2.6.6. 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

2.6.7. Electrical connection

Attention!

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

Electrical parameters of the machine:

- Service voltage: $\sim 3 \times 400 \text{ V}$, 50 Hz, TN-C-S
- Total input / Max. fuse: 9 kW / 25 A

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

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

Note:

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

Note:

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

Attention!

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

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

2.6.8. 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.

2.6.9. 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!!!



2.6.10. Filling of the cooling system

Prepare the mixture of the water and the cooling liquid. Keep the concentration specified by manufacturer.

Fill the mixture of the water and the cooling liquid to the tank 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.

Keep by manufacturer specified recommendation for adding the anticorrosive agents, the antifreezes or other agents! For mixture of two different mixes can produce toxic and aggressive mixes, which can threaten your health or damage cooling system of the machine!

Note:

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

2.6.11. 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.

2.7. 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.

Packaging material Also dispose in accordance with valid directives.

Packaging and machine parts that contain secondary raw materials can be recycled.

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

4780x34x1,1 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

1. *Constant tooth system* – the saw band has parallel tooth pitch all over length. This way is suitable for cutting of solid material.

BOMAR for recommended Variable tooth system for band saw.

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:

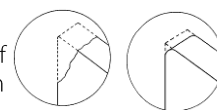
32 S – number „32“ means 32 teeth on one inch (that means constant tooth system), letter „S“ marks teeth with zero angle of the tooth.

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

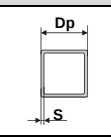
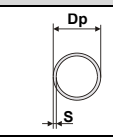
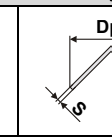
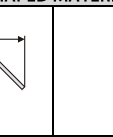
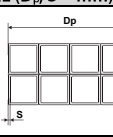
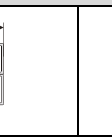
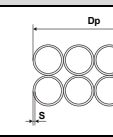
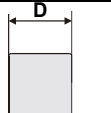
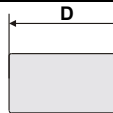
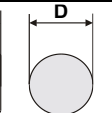
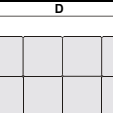
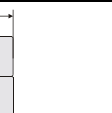
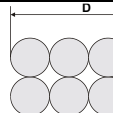
Running-in: Cut the material with the frame lowering reduced to 50% only. When vibrations occur increase or decrease the band speed.

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

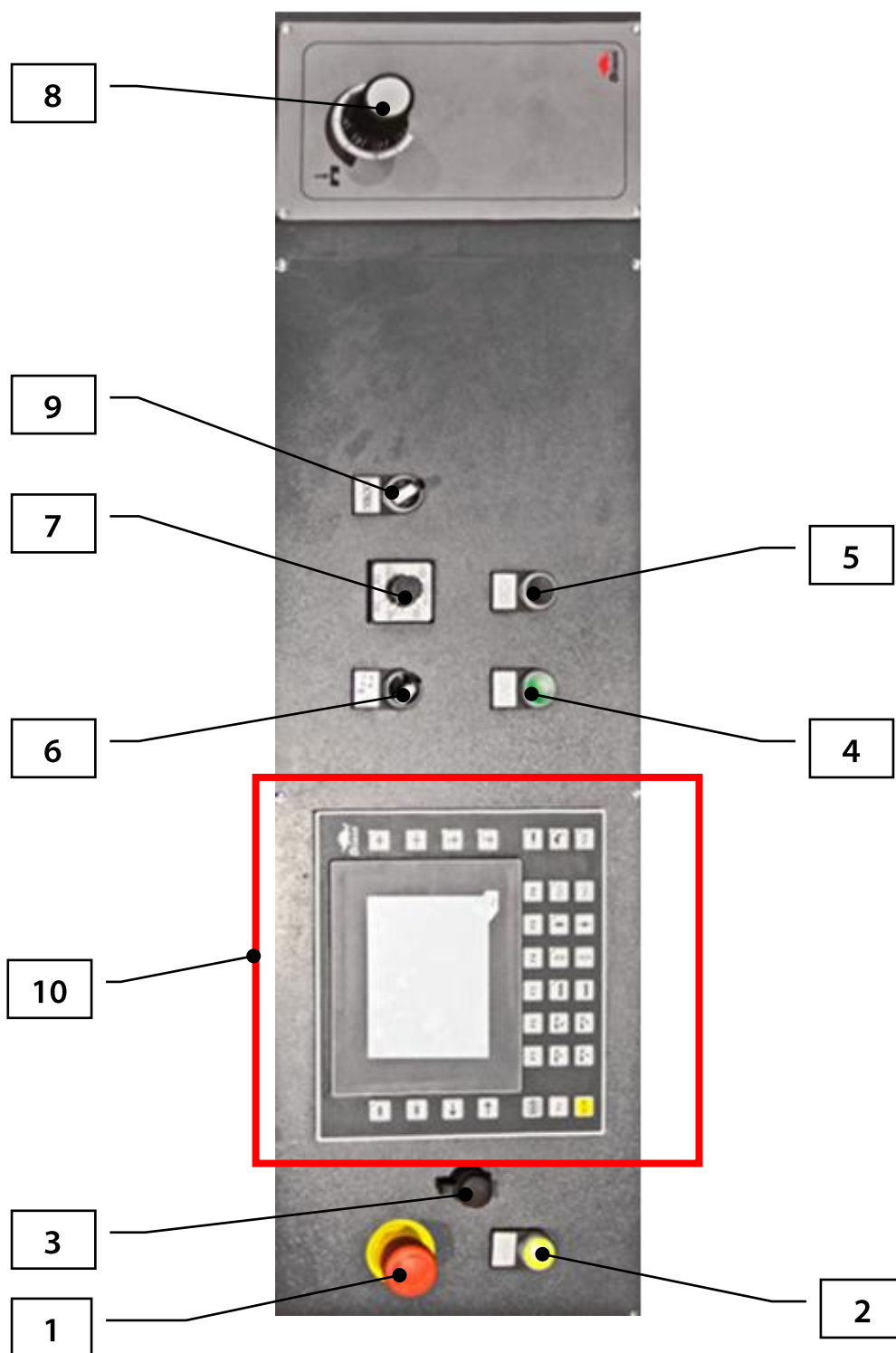
SHAPED MATERIAL ($D_p, S = \text{mm}$)						
						
Note: Table shows tooth system selection for cutting one piece of the profile. For cutting of more pieces of the profiles (bundle), you must think of the size of the wall as double size of the wall of one profile (that means, size „S“ equates to 2xS). 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					

In spite of the proposals above, consider your supplier's recommendations and ask him for professional advice although the manufacturers often recommend their own saw bands to you.

3. **Machine control**

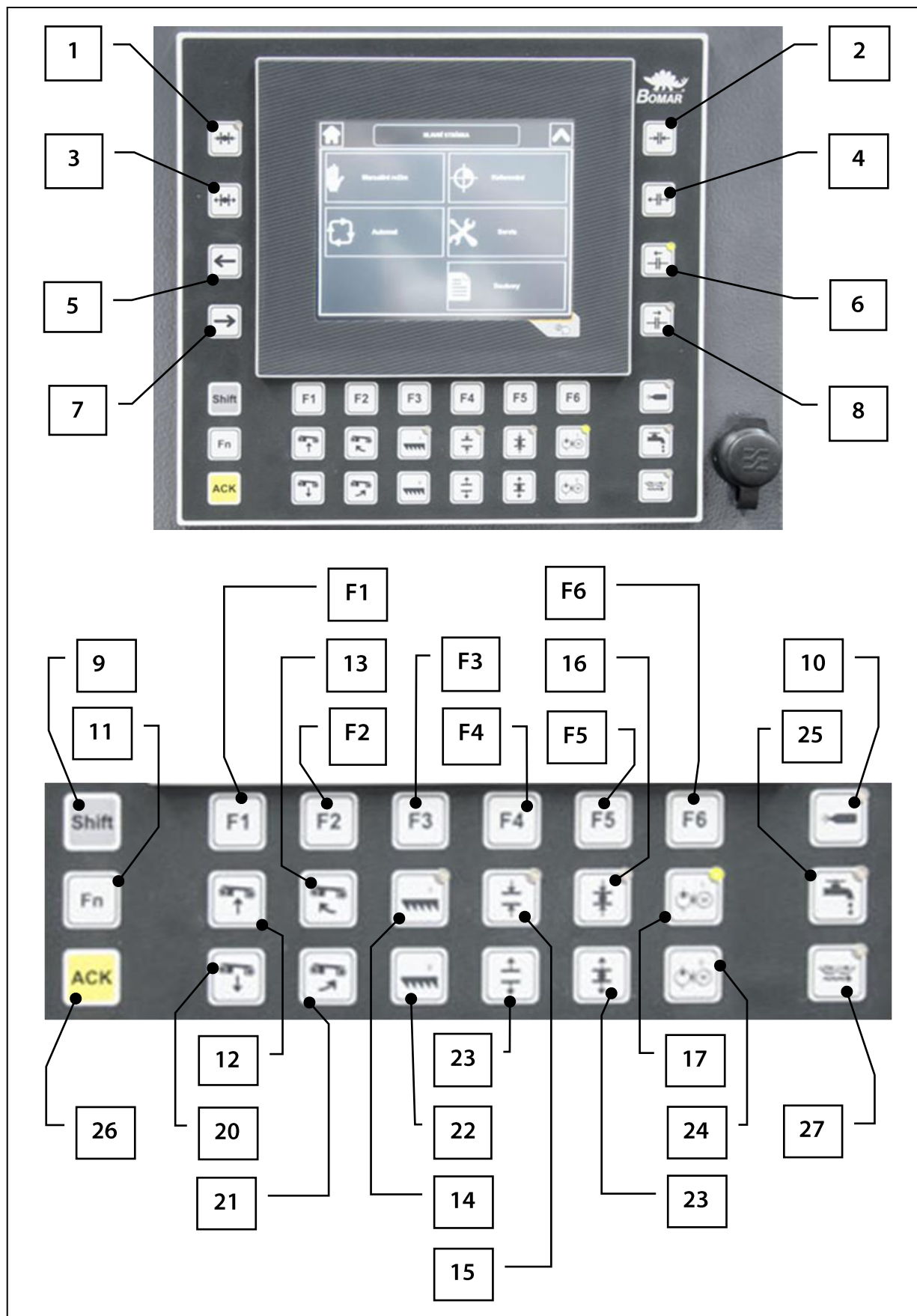
3.1. Control panel

Ovládací stroje
Bedienung der Maschine
Machine control



1	Emergency Stop Switch Immediately stops the machine in emergency
2	Safety circuit Button switch on the control circuit of control system
3	USB port (optional accessory) Can be used for load/save cutting data
4	START Starts automatic/semiautomatic mode
5	STOP Stops automatic/semiautomatic mode
6	Machine mode selection
	 - Manual mode
	 - Automatic mode
	0 - Editing mode
7	Frequency converter Frequency converter sets the speed of saw band in the range of 20-120m.min ⁻¹
8	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 in the cut 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 lightly. sedlo ventilu, což způsobí jeho průsak. Dotahujte proto ventil vždy jen zlehka.
9	Deblock – for hydraulic saw band tensioning Toggle button allowing manual control hydraulic belt tensioning
10	Touch screen When working with the machine all of the necessary information the operator needs to control it is shown on the display. Button for manual machine control see below

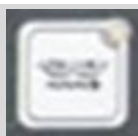
3.1.1. Buttons for manual control of the machine



1		Clamping feeder vice – pushing the button clamps jaws of the feeder vice.
2		Clamping main vice – pushing the button clamps jaws of the main vice
3		Releasing feeder vice – pushing the button releases jaws of the feeder vice
4		Releasing main vice – pushing the button releases jaws of the main vice
5		Feeder leftward For the time the button is pushed the feeder is moving from the saw. If the machine is not referenced, the feeder only moves in microfeed (slowly).
6		Pushing the button moves the vice leftwards Pushing the button moves the vice leftwards During movement, the button need not be kept pushed.. The button function is only active if the machine is not referenced. If the machine is referenced, the vice is moving fully automatically according to the saw position.
7		Feeder rightward For the time the button is pushed the feeder is moving towards the saw. If the machine is not referenced, the feeder only moves in microfeed (slowly).
8		Main vice rightward Pushing the button moves the vice rightwards During movement, the button need not be kept pushed. The button function is only active if the machine is not referenced. If the machine is referenced, the vice is moving fully automatically according to the saw position.
F1 – F6		Soft key The function is assigned according to the current LCD menu
9	Shift	Without function
10		Micronization (optional equipment) Button for saw band cooling on/off by means of micronization.

11		Without function
12		Arm movement Pushing the button moves the arm – 12 for upward movement and 20 for downward movement. To move the arm, the button must be kept pushed.
20		
13		Saw arm rotation Pushing 13 rotates the arm leftwards (negative angles). Pushing 21 rotates the arm rightwards (positive angles).
21		
14		Saw band drive Pushing button 22 switches off the band drive in the manual mode. Pushing 14 switches the saw band drive on.
22		
15		Control of the upper thrust of the bundler (optional equipment) Button 15 for the upper clamping hydraulic cylinder, which is fixed to the main vice and moves with it. Button 23 controls the upper thrust pneumatic cylinder, which holds the cut-off material The bundler is an optional device, not standard equipment of the machine.
23		
16		Without function
17		Hydraulic pump Pushing 17 switches on (or 24 switches off) the hydraulic pump.
24		
25		Belt emulsion cooling By pushing the button, you switch on/off the cooling emulsion pump.
26	ACK	ACK key Quitting – confirmation of faults; if a fault is not confirmed, the machine working cycle cannot be started.

27



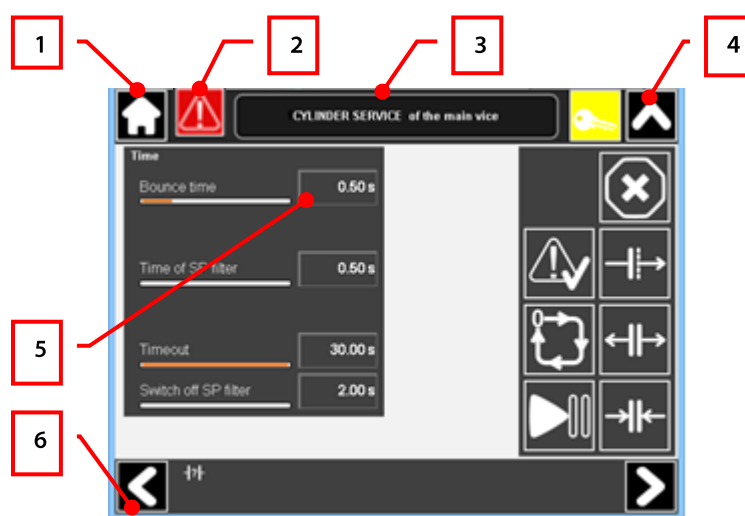
Chip remover (optional equipment)

Chip remover drive on/off

3.2. Machine control elements

3.2.1. 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

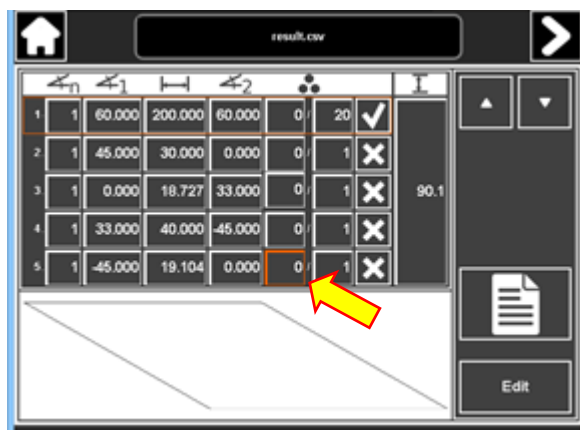
6– browsing between screens at the same hierarchical level (e.g., if parameter control or setting is divided into several screens or if there are more elements controlled or more units to set service parameters)

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.



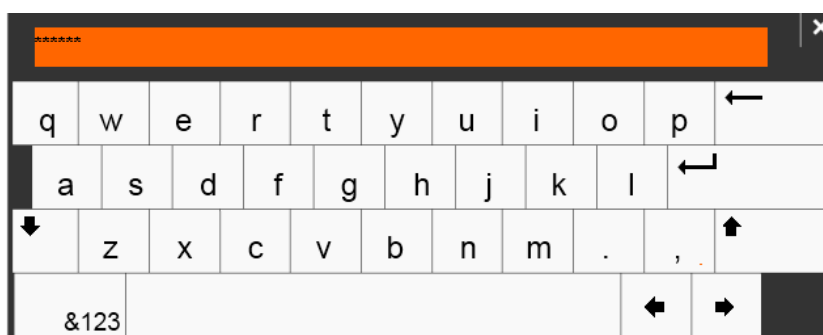
3.2.2. Touch screen keyboard

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)

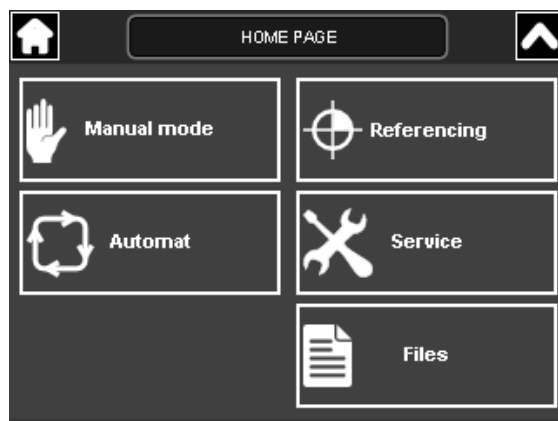


Pos.	Function
	Keyboard closing without saving the data entered
	Deletion of data entered in the keyboard window
	Keyboard closing with saving the data entered (confirmation of the value entered)
	Shift function (capital letters and upper case)
	Caps Lock Function

3.2.3. Main screen of the control software, machine modes

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

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:

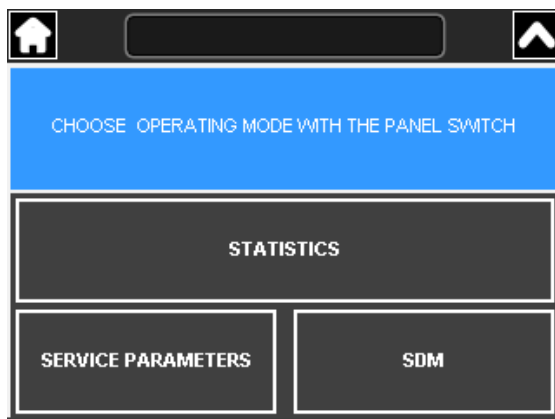
- **Service** – used to set the machine parameters
- **Files** – used to set the recipes for the course of the automatic mode

3.2.4. 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:	22.05.1998	9999 : 99 : 99
Cooling:	22.05	9999 : 99 : 99
Hydraulics:	22.05	9999 : 99 : 99
Sageband:	22.05	9999 : 99 : 99
Hydraulic of feeder:	22.05	9999 : 99 : 99

Name	Valid from	Cuts
Cuts in total	22.05	9999
Cuts	22.05	9999

Reset

3.3. 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".

3.4. 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.
Switching on of the safety circuit of the saw is signaled with orange light at the button for the safety circuits switching on.



Unless the safety circuits have been activated, no mode of the machine can be started.

3.5. Machine referencing

Caution !

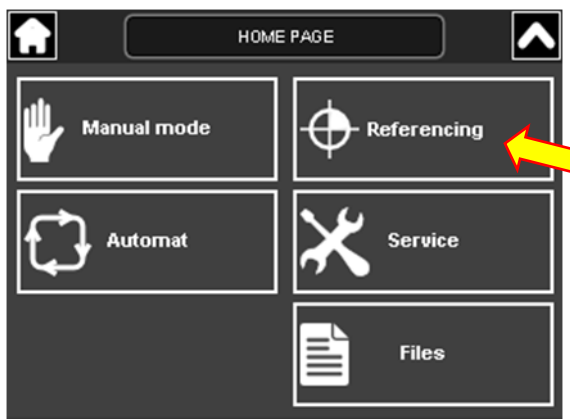
Before starting the referencing, remove all material from the saw and feeder. Do not reference the machine, if there is any material clamped in any of the vices..

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..

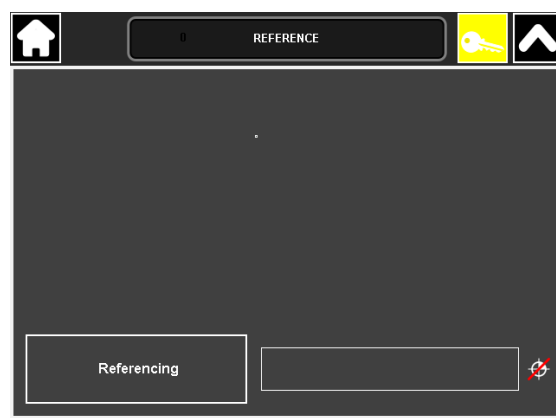
1. Turn the **mode selector** to the manual mode position  or to the automatic mode position. .

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:



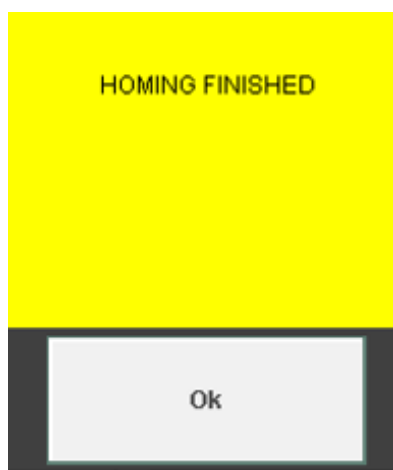
Pos.	Function
	Start of referencing process.
	Status bar Referencing process course initialization When referencing is completed, the status bar returns to the beginning.
	Referenced
	Not referenced

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.

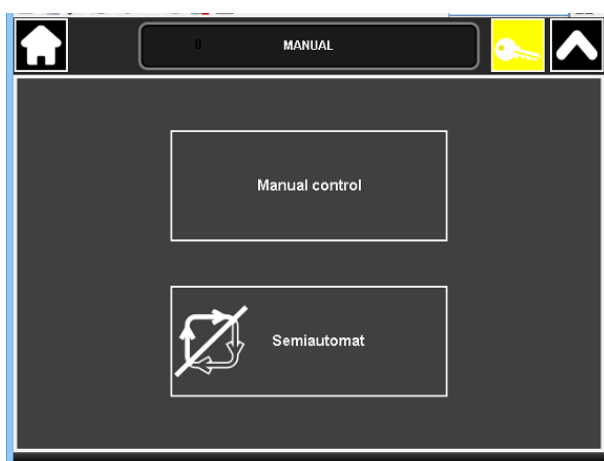
Caution!

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.** 

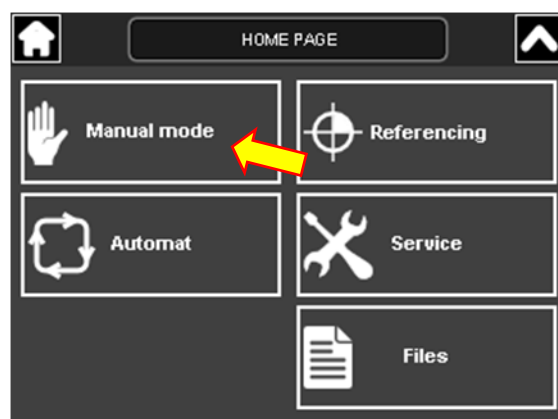
2. A screen with the options appears:

- „Manual control“ – to control the saw functions
- „Semiautomat“ – to control the saw in the semiautomatic mode



Note:

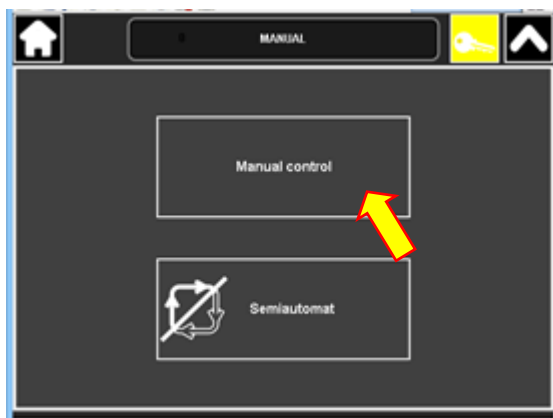
To display this screen, you can also choose the option for manual mode initiation on the main screen of the control software:



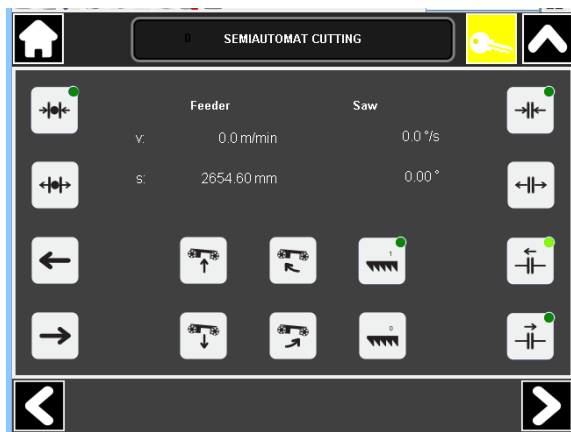
However control elements are not functional if the mode selector is not in the position

for manual mode  !

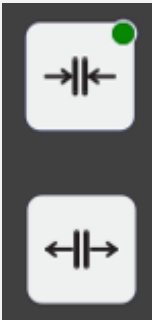
- To control the machine manually, choose the „Manual control“ option on this screen



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



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

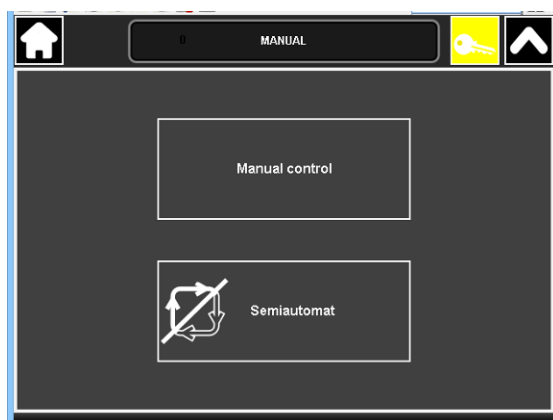
Pos.	Function
	Main vice open / close Vice clamping is indicated by lighting the green lamp at the icon. 
	Vice table movement Setting of the vice table to the end position is indicated by lighting the green lamp at the pertinent icon.
	Arm upward movement. The button must be pushed continually for the 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.
	Arm rotation by a positive angle (counter-clockwise round the rotation axis)
	Arm rotation by a negative angle (clockwise round the rotation axis)
	Rotate the saw band Rotation of the saw band is indicated by lighting the green lamp at the icon.
	Stop the band motor

Pos.	Function
Feeder 0.0 m/min 2654.60 mm	Course of feeder movement – current speed
Feeder 0.0 m/min 2654.60 mm	Course of feeder movement – current position
Saw 0.0 °/s 0.00 °	Course of arm rotation – current speed of arm rotation
Saw 0.0 °/s 0.00 °	Course of arm rotation – current angle

3.7. Semiautomatic mode

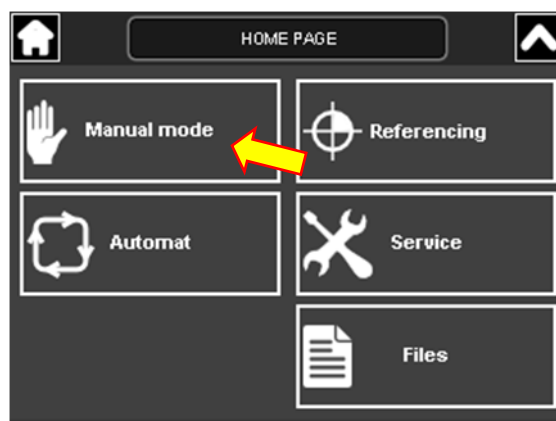
3.7.1. Cutting execution in semiautomatic mode:

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:**
 - „Manual 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:



However control elements are not functional if the mode selector is not in the position

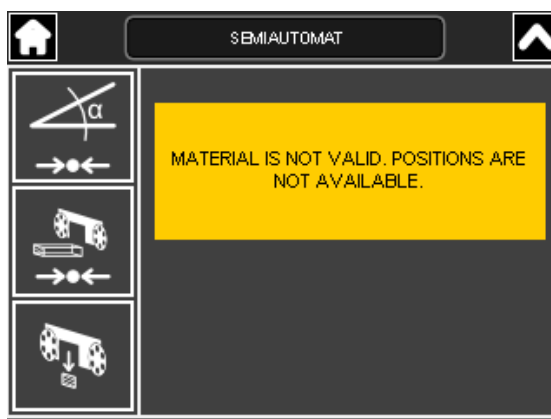
for manual mode  !

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



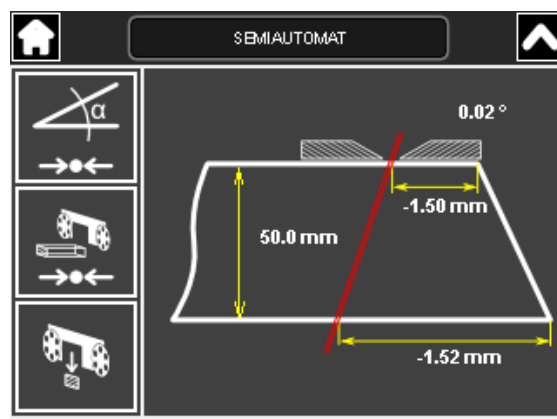
6. The screen appears for control of the machine in the semiautomatic mode, in one of the following variants, a) or b):

a) Invalid material

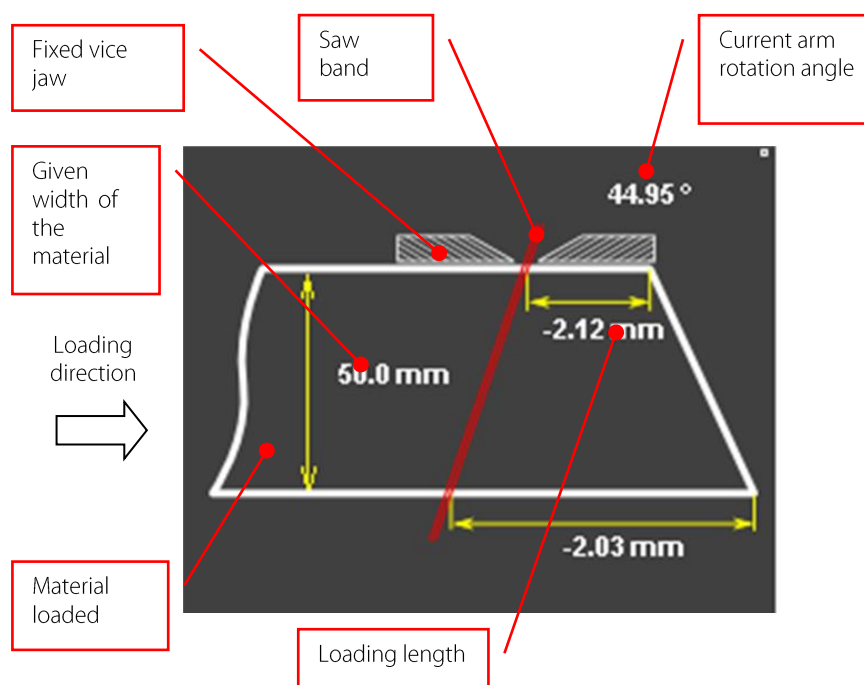


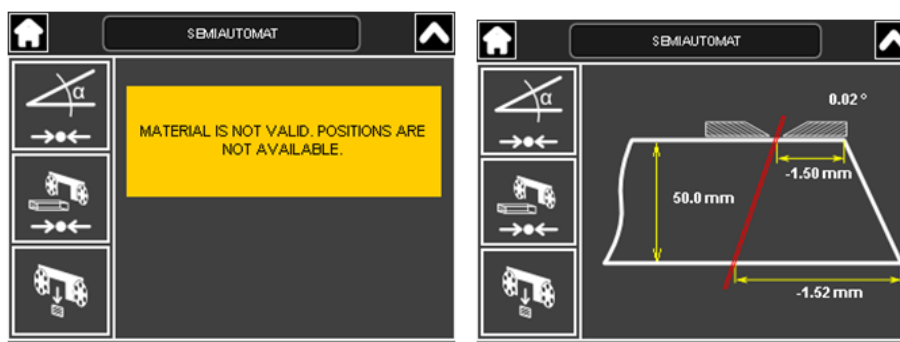
Pos.	Function
	Information that the machine has no information on the material face position.: Without a valid material, the semiautomatic mode enables: - entry of parameters - rotation of the arm by the given angle - cutting of material without a length entered To load the given material length in the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

b) 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 setting the arm rotation angle
	Option for length loading
	Semiautomatic cut setting

Options in the left screen column – options for setting the arm rotation angle, 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. Turn the arm to the required angle.

Arm swivel to the required angle in semiautomatic mode, see chapter “Semiautomatic arm swivel”.

8. Insert material

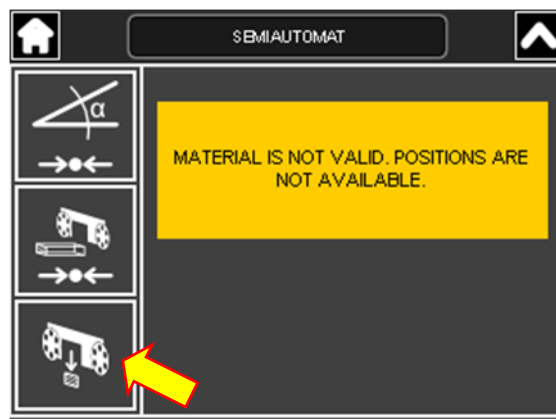
The material can be loaded

- 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”

9. Set the material width and cooling method.

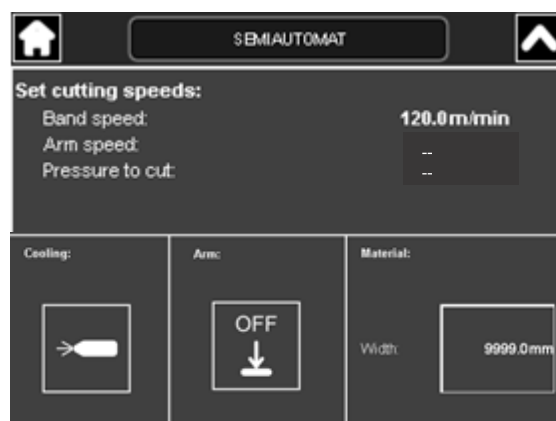
The material width and cooling method can be set in the semiautomatic-setting screen which appears:

- after you choose the option for setting the semiautomatic cut in the screen for the machine control in the semiautomatic mode



- or automatically, after turning the arm to the required angle in the semiautomatic mode

Screen for setting the semiautomatic cut



Pos.	Function
Set cutting speeds	
Band speed	Set band speed
Arm speed *	Set speed of the arm descent to cut
Pressure to cut *	Set thrust to cut
Cooling	
  	Cooling method You can choose the cooling methods by repeatedly pushing.  - liquid cooling  - Micronizer cooling*  - without cooling
Arm	
 	Selection of arm position after cut Pushing repeatedly, you can choose between the arm positions after cut  - After cutting, the arm remains at the bottom and the band drive is switched off  - After cutting, the arm moves up and the band drive is switched off
Material	
Width	Enter the real width of the material cut with the accuracy of the given decimal positions. Attention! Accuracy of the given material width has an effect on the cut length accuracy!

* The option is only functional for a machine with the given equipment

10. Setting of the arm starting position above the material to start cutting

As standard, the machine is equipped with a device for detection of the arm position above the material. In the automatic mode, the arm runs up above the material to the height given by the equipment setting (for details, see the chapter Equipment for detection of the arm position above the material).

11. By means of the potentiometer on the saw control panel, **set the required cutting speed**

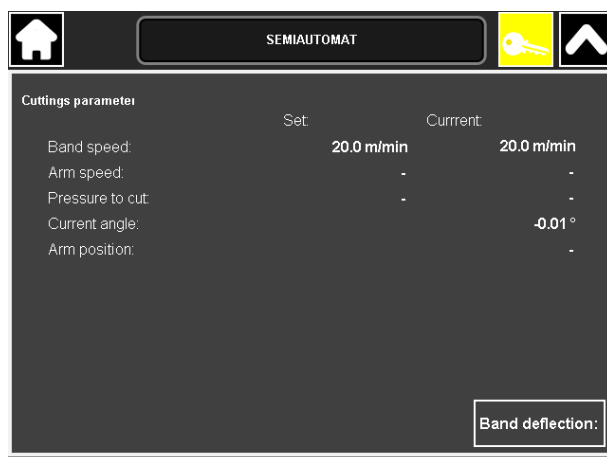
12. By means of the valve on the saw control panel, **set the speed of the arm descent to cut**

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

14. After pushing **START**:

- If the vice is in a wrong position with regard to the set arm rotation speed, it moves to the correct position automatically.
- If a material is clamped in the vice, it will automatically be released before the vice is moved, and then clamped again.
- The saw band starts up and the arm starts feeding to cut.
- While the arm is descending to cut or even during cutting, you can adjust the saw band speed and speed of arm descent to cut by means of the control elements on the machine control panel.
- On the control panel display, a screen appears with information on the cutting process.

Screen with information on the semiautomatic cut process

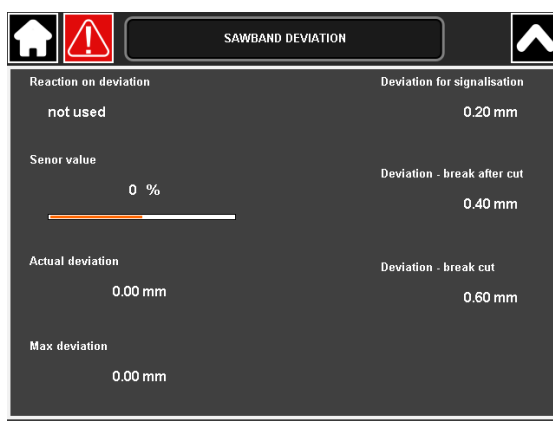


Pos.	Function
Cutting parameters	
Set	
Band speed	Set band speed
Arm speed *	Set speed of the arm descent to cut
Pressure to cut *	Set thrust to cut
Current	
Band speed	Current band speed
Arm speed *	Current speed of the arm descent to cut

Pos.	Function
Pressure to cut *	Current thrust to cut
Current angle	Current arm rotation angle
Arm position *	Arm height above the vice loading area
	Option for viewing the parameters of the band deviation After you push the "Band deflection" option in the screen showing the automatic cycle process, a screen with viewing the parameters of the band deviation appears.
	Setting of the parameters of the device for measurement of the saw band deviation – see Service parameters

* The option is only active for a machine with a regulator and sensor of the pertinent variable

Screen with viewing the parameters of the band deviation



If the indication value is exceeded and an option of the machine response to the band deviation is chosen, except for "Not used"

1. Exceeding of the admissible value is indicated by the beacon flashing; the machine responds according to the option chosen

On the screen showing the band deviation parameters, a button appears to reset the



2. Having removed the cause which has led to exceeding of the admissible deviation limit, the operator resets the measured deviation with the reset button displayed

The deviation is deleted and the beacon stops flashing

Resetting interrupts deviation measurement until the cut is completed. When the next cut is started, deviation measurement is renewed.

15. After cutting in the semiautomatic mode is completed:

- The arm automatically returns to the position from which the cut was started or remains in the cut – according to the choice made in the screen for setting the semiautomatic mode; band movement stops
- Completion of cutting in the semiautomatic mode is indicated by a message on the control panel display that the cut has been completed.

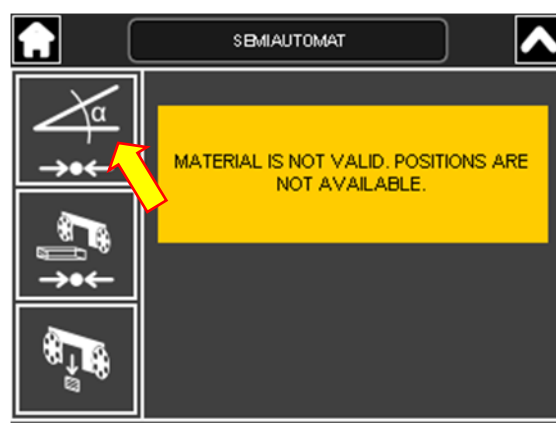
16. Remove the cut-off. Now you can repeat the entire procedure.

3.7.2. Semiautomatic arm swivel

In the semiautomatic mode, you can swivel the arm by the given angle.

In the semiautomatic cycle, the main vice will also be moved automatically with the arm rotation.

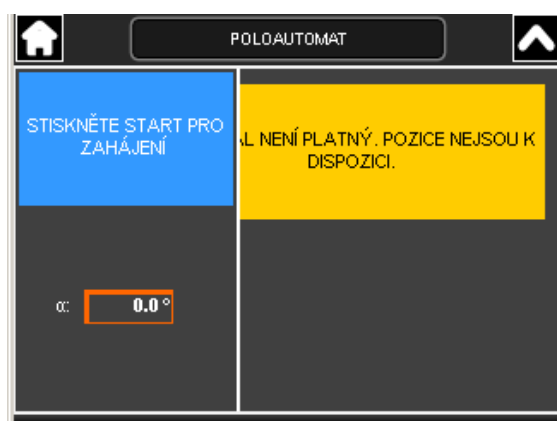
1. Choose the option for setting the arm rotation angle.



The arm can be rotated even if the machine reports an invalid material.

The arm cannot be swivelled, unless the machine is referenced.

2. The screen appears for setting the arm rotation angle and the START button starts flashing.



Pos.	Function
	The field for insertion of requested arm rotation angle.
	Instructions for further procedure

3. In the parameter entry window in the screen for setting the arm rotation angle, enter the required arm rotation angle.
4. Push the **START** button
5. After you push the **START** button:
 - the saw arm is automatically adjusted to the desired position
 - the main vice automatically moves to the position according to the angle set.

Attention!

The main vice is moved automatically only if no material is clamped in the vice during automatic setting of the arm angle!

6. When the automatic arm angle setting is completed, the screen for cut start appears on the display automatically.

3.7.3. Loading the required material length in the semiautomatic mode

The required material length cannot be loaded, unless the machine is referenced.

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:

- a) load the material under the saw band manually

- b) start the cut in the semiautomatic mo

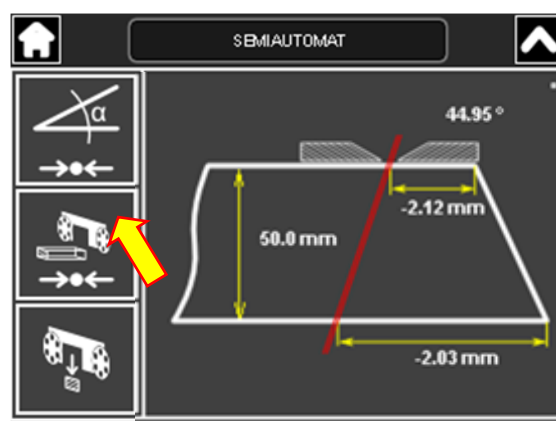
Attention!

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

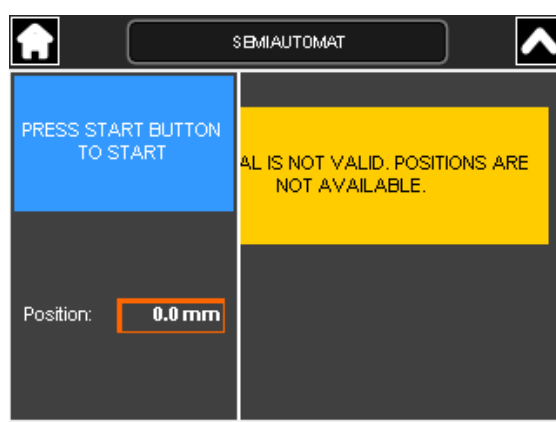
Attention!

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

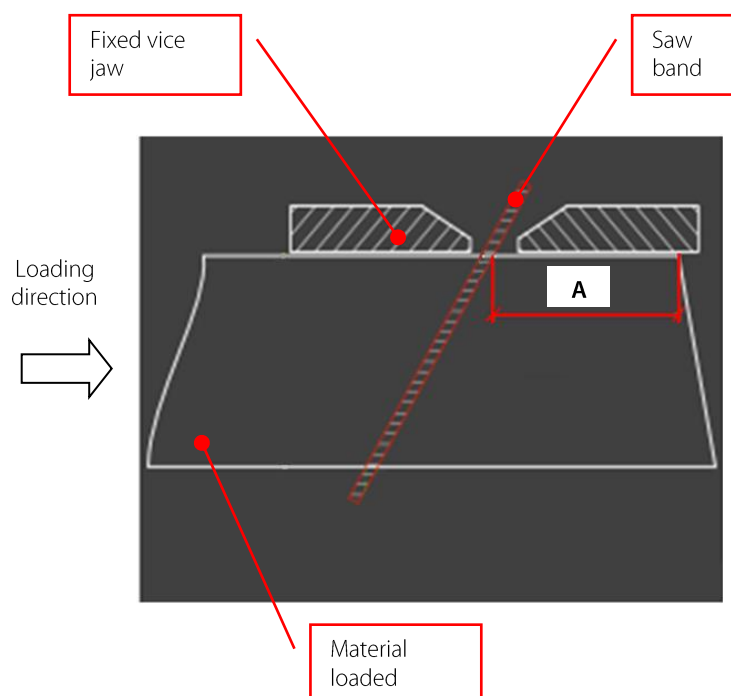
2. If the material is valid, choose the option for length loading and the START button starts flashing.



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



Pos.	Function
	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!

Caution!

Upper clamping can only be used at zero turning of the arm.

6. After the Start button is pushed to start loading of the material :
 - the feeder clamps the material in the position in which it is currently and loads it to the desired length
 - After loading, the material is automatically clamped by the main vice

3.7.4. Semiautomatic sequence interruption

3.7.4.1. 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.

3.7.4.2. With the Emergency Stop Switch

In emergency cases, push the **Emergency Stop Switch** on the control panel.

1 push - interruption of safety circuits

- complete stop and finish of the sequence executed

The interrupted sequence cannot be resumed; the safety circuits must be switched on again and the interrupted sequence restarted from the beginning.

3.7.4.3. 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.

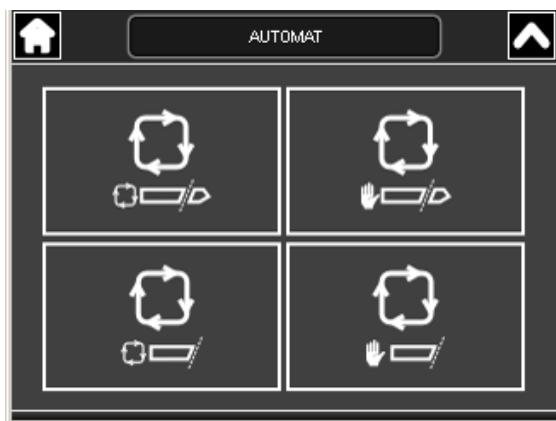
3.8. Automatic mode

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!

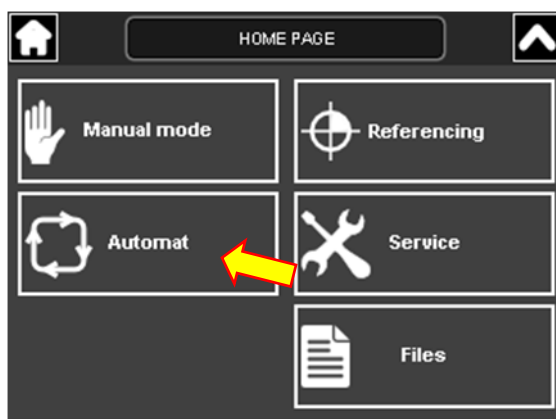
Caution!
Size of burr and unevenness of the material face has an effect on the precision of the length loaded by the feeder!

1. Turn the mode selector to the automatic mode position .
2. This screen appears with options for the material loading and cutting in



Note:

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



However control elements are not functional if the mode selector is not in the position  for automatic mode!

Pos.	Function
	Automatic material loading with cut-in - the material is loaded under the saw band automatically - the cut-in length is set automatically according to the entered cut-in length (for the setting, see below) - 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
	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
	Automatic material loading without cut-in - Material is loaded under the saw band automatically - The first piece length is set automatically – according to the cut length set in the recipe - After loading, the automatic cycle is started automatically according to the preset recipe - If an external loading system is installed, other pieces are loaded automatically and not cut in
	Manual loading of the material without cut-in 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.).

- 
result.csv


	x_n	x_1	x_2	x_3	x_4	x_5	
1	1	60.000	200.000	60.000	0	20	✓
2	1	45.000	30.000	0.000	0	1	✗
3	1	0.000	18.727	33.000	0	1	✗
4	1	33.000	40.000	-45.000	0	1	✗
5	1	-45.000	19.104	0.000	0	1	✗

90.1






Edit

The recipe modification is analogical to the recipe entry – see the Recipes chapter.

result.csv

1	1	60.000	200.000	60.000	0	20	✓
2	1	45.000	30.000	0.000	0	1	✗
3	1	0.000	18.727	33.000	0	1	✗
4	1	33.000	40.000	45.000	0	1	✗
5	1	-45.000	19.104	0.000	0	1	✗

90.1

Edit

LOCAL_RECIPE

Recipes\

- .
- ..
- r1.csv**
- recipe2.csv
- recipe3.csv
- aaa.csv

Open Copy Delete New folder Export recipe

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!

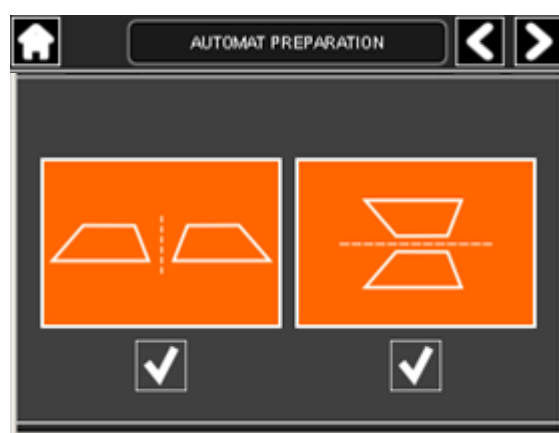
If you do not save the modified or newly entered task (recipe) (see the “Recipes” chapter), the data entered will be lost the moment when you load another recipe.

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.



4. By means of the browsing option, shift from the screen for modification of the loaded task (recipe) to the cut **optimization screen**

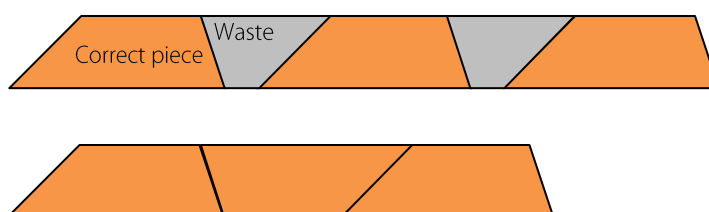


Pos.	Function
	Information whether the option is active, or not.  + colour-backlit window – the indicated shape turnover round the given axis will be executed  + grey window – the indicated shape turnover round the given axis will not be executed
	Turnover round the material axis perpendicular to the material feeding direction By repeated touch, choose whether the option will be active (the window colour-backlit) or not (grey window).

Pos.	Function
	Turnover round the material axis parallel with the material feeding direction. By repeated touch, choose whether the option will be active (the window colour-backlit) or not (grey window).

Optimizations

If the material section is symmetric, it is suitable to choose the cutting variant with minimum remnant. If pieces with different angles are cut, the angle sequence will alternately rotate so that there is no waste between the pieces. This variant cannot be used if the cut material section is not symmetric (e.g., L-angle section).



Attention!

During optimization, the shape will not be turned in a way which would prevent its cutting (for example, due to violation of the conditions of safe clamping, etc.)!

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



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

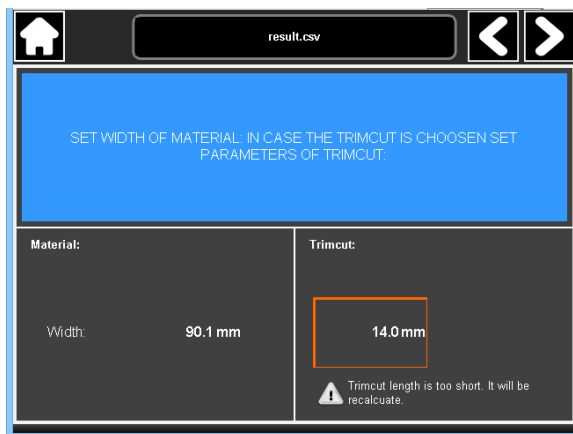
* The option is only functional for a machine with the given equipment



6. By means of the browsing option , shift from the screen for cooling selection and band switch-off to the screen for **cut-in parameters setting**.

- **If automatic loading with cut-in has been selected:**

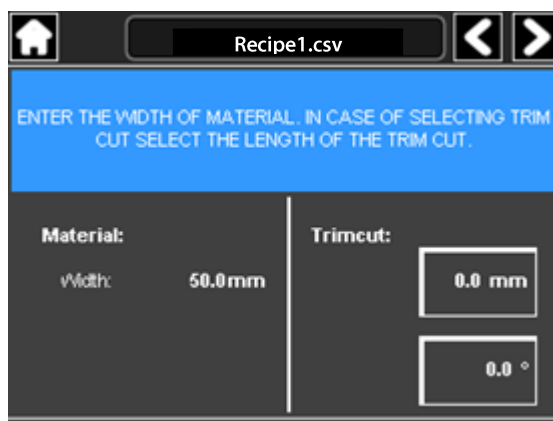
In the chosen screen, displayed in this step, the operator can enter the cut-in length which will be loaded automatically:



For the automatic loading with cut-in, the possible cut-in angle will be set automatically according to the material shape selected in the recipe and the optimization.

- **If manual material loading with cut-in has been selected:**

The screen displayed in this step enables the operator to enter the cut-in length and angle.



Attention!

For the manual loading with cut-in, the first bar is cut in to the manually loaded length!

The length entered in the screen applies to automatic cut-in of other bars!

The cut-in angle entered applies to the first bar cut-in only!

To automatic cut-in of further bars, it applies that the cut-in angle will be set automatically according to the material shape selected in the recipe and the optimization!

- If you have chosen automatic or manual loading of material without cut-in, the following screen appears:



Description of screens for insertion of parameters for trim cut (cut in):

Pos.	Function
Material	
Width	Information on the material width entered in the current recipe
Trim cut	
	- enter the required cut-in length. (If the option is selected for cut-in of other bars loaded by an external loading system)
	- if it is displayed, enter the required cut-in angle If you want to execute straight cut-in, enter the angle = 0°
Trimcut lenght is too short. It will be recalculate	The notice only appears if the automatic cycle is selected with automatic loading and cut-in. If the operator enters a cut-in length shorter than the shortest admissible cut-in length, the machine automatically converts the incorrectly entered length to the shortest length allowed. If an external loading device is installed and the operator chooses cut-in for the next bars loaded, and if the cut-in length is entered incorrectly, the cut-in of the next bars loaded will be calculated automatically according to the first angle cut on these next bars.

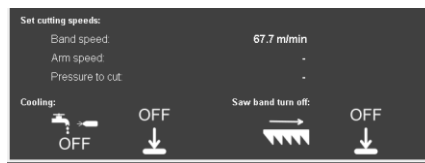
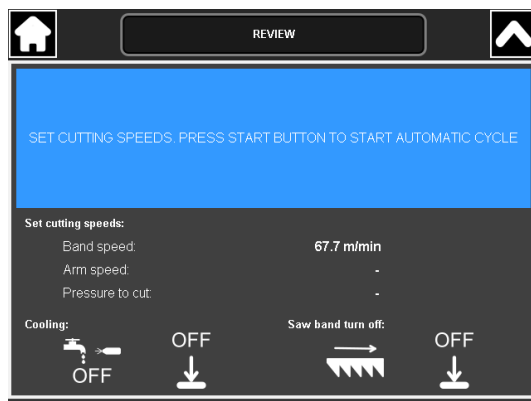
7. After setting all parameters, shift to the screen for the **automatic cycle start**.

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



- in the screen for entry of the cut-in length – if a cut-in mode has been selected
- or 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.	Function
	Instructions for further procedure
	Entered parameters display

When this screen appears, the START button starts flashing.

8. **Setting of the arm starting position above the material to start the cut**

As standard, the machine is equipped with a device for detection of the arm position above the material. In the automatic mode, the arm runs up above the material to the height given by the equipment setting (for details, see chapter Equipment for detection of the arm position above the material).

9. By means of the potentiometer on the saw control panel, **set the required cutting speed**
10. By means of the valve on the saw control panel, **set the speed of the arm descent to cut**
11. **Push the START button and start the automatic cycle**

12. If material loading with cut-in has been selected, the operator is asked before the automatic cycle starts whether the other bars should be cut in as well:

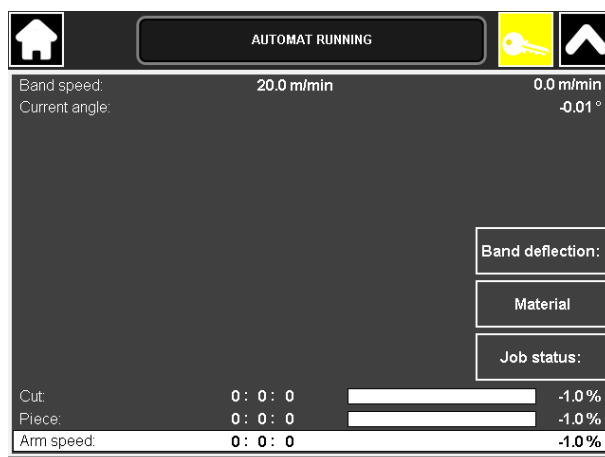


YES – each of the bars in the given automatic mode will be cut according to inserted parameters (see the screen for cut-in parameters setting)

NO – only the 1st bar in the cycle will be cut in; the other bars will be without cut-in

The choice is only valid if an input loading system is installed before the saw, continually loading on the feeder track more bars subsequently. If no input loading system is installed, the YES/NO choice is irrelevant because only one bar at a time is always loaded on the feeder track.

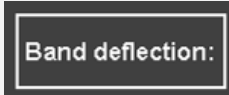
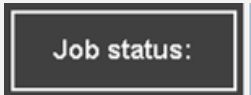
13. After the START button is pushed and the automatic cycle starts, a screen appears, showing the automatic cycle process



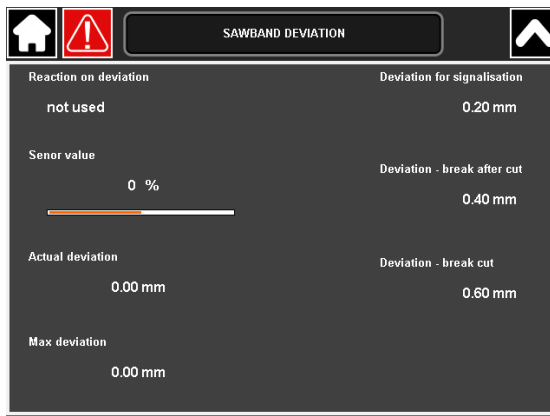
The set parameter values are displayed in the left-hand column at the top of the screen; current parameter values are in the right-hand column

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

The right bottom part of the screen contains the following options:

Pos.	Function
	Option for viewing the parameters of the band deviation After you push the "Band deflection" option in the screen showing the automatic cycle process, a screen with viewing the parameters of the band deviation appears. Setting of the parameters of the device for measurement of the saw band deviation – see Service parameters
	Option for the material position display After you push the "Material" option in the screen showing the automatic cycle process, a screen showing the material position appears.
	Option for viewing the current order state After you push the "Job status" option in the screen showing the automatic cycle process, a screen showing the current order state appears.

Screen with viewing the parameters of the band deviation



If the indication value is exceeded and an option of the machine response to the band deviation is chosen, except for "Not used"

1. Exceeding of the admissible value is indicated by the beacon flashing; the machine responds according to the option chosen

On the screen showing the band deviation parameters, a button appears to reset the



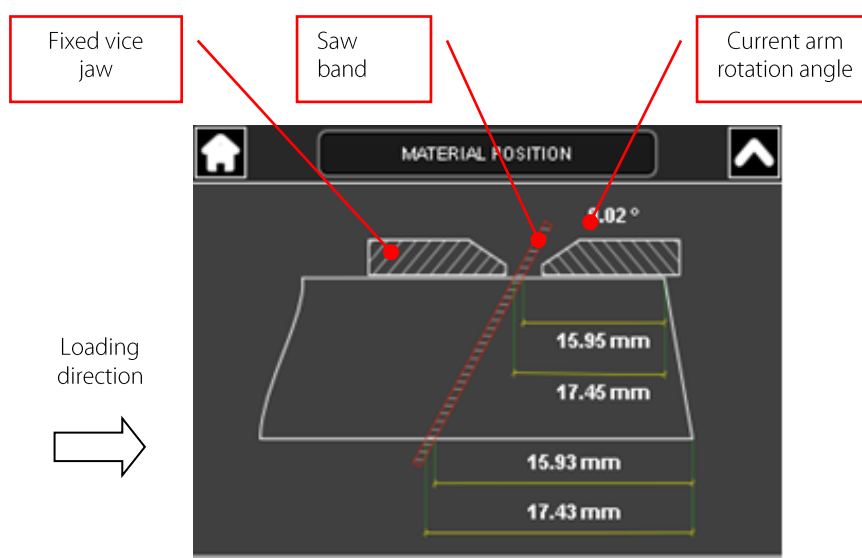
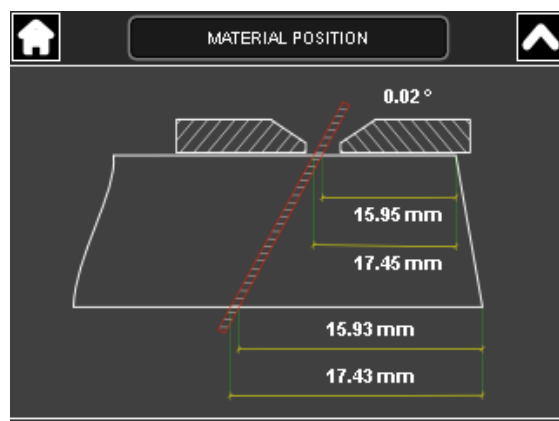
deviation

2. Having removed the cause which has led to exceeding of the admissible deviation limit, the operator resets the measured deviation with the reset button displayed

The deviation is deleted and the beacon stops flashing

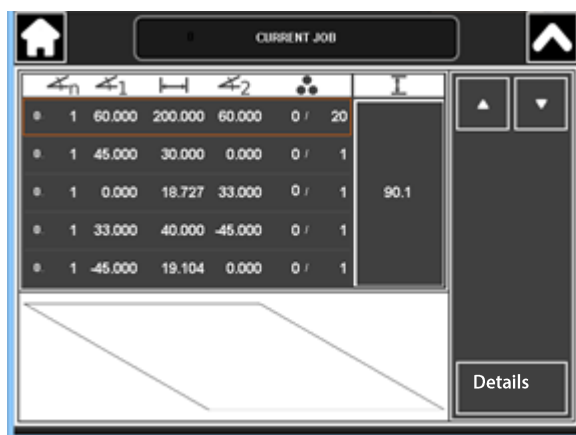
Resetting interrupts deviation measurement until the cut is completed. When the next cut is started, deviation measurement is renewed.

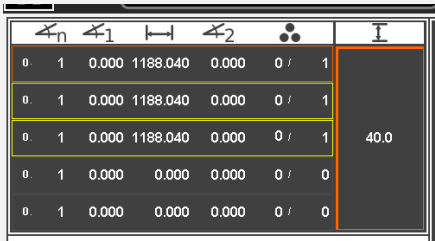
The screen showing the material position



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

Screen showing the current order state



Pos.	Function
	Browsing between lines
Details	Option for display of the browsed up line details
	Currently loaded order Green line – currently cut Orange line – browsed up line
	Shape in the currently browsed up line (in orange box)

14. 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 automatic material loading and cut-in**

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

- After you push the START button, the feeder moves to find the material front with the laser beam. After the material front has been found, the feeder clamps the material and loads it to the saw **to the given cut-in length**.

It is assumed that in the mode of automatic loading to the saw the face of the loaded material is straight.

- After the given material length has been loaded, the material is automatically clamped by the main vice and cut in.
- After the first piece has been cut in, the automatic cycle further proceeds according to the settings of the recipe loaded.

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).

If an inlet loading system (such as a conveyer) is installed, the other pieces are cut in as well according to the option for cut-in of other bars – see above.

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

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

- After you push the START button, the feeder moves to find the material front with the laser beam. After the material front has been found, the feeder clamps the material and loads it to the saw **to the given length for the finished part**.

It is assumed that in the mode of automatic loading to the saw the face of the loaded material is straight.

- clamped by the main vice and the piece from the first checked nonzero line of the recipe will be cut first.

The cycle continues stepwise with all of the checked nonzero lines of the recipe.

- 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:

- The arm turns to the set cut-in angle.
- The operator is asked to insert the material.

INSERT MATERIAL IN THE SAW
A CONFIRM BY PUSHING THE START BUTTON

The material must be inserted in the area of the feeding vice jaws so that it can be detected by the sensor laser beam.

At the same time, the inserted material face must be far enough from the main vice so that the feeder is able to detect the material face with the laser beam.

- The operator confirms insertion of the material by pushing the START button.
- 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.
- After loading the material under the saw band, push again the "START" button – cut-in will be started at the manually loaded material length.
- 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).

If an inlet loading system (such as a conveyer) is installed, the other pieces are cut in as well according to the option for cut-in of other bars – see above. To cut-in of bars fed by the inlet loading system, the parameters apply, entered in the screen for manual loading with cut-in.

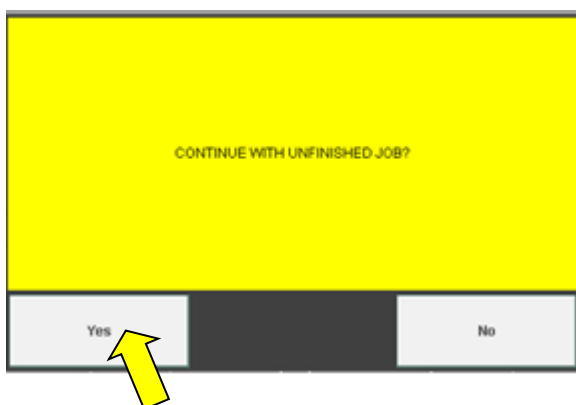
- **Automatic cycle with manual material loading without cut-in**

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.

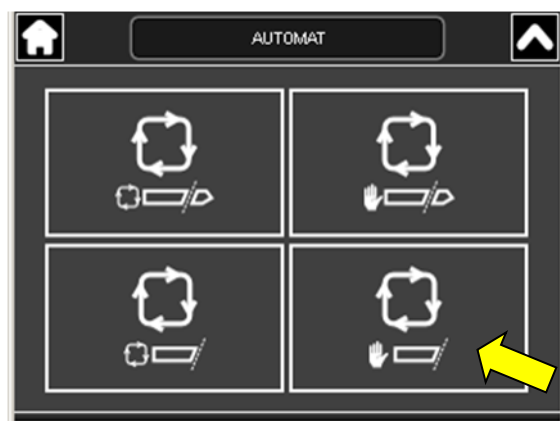
It is necessary for this mode that the material remains initiated (that is, the operator should not open the vices after the automatic cycle interruption).

- 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:



Under these circumstances, the cycle cannot be resumed; confirm the message and start the cycle again..

15. 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.

16. Remove the cut-off.**17. 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.



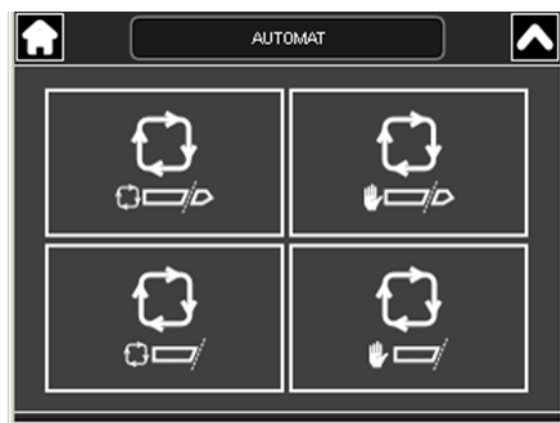
If you choose “Yes”

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

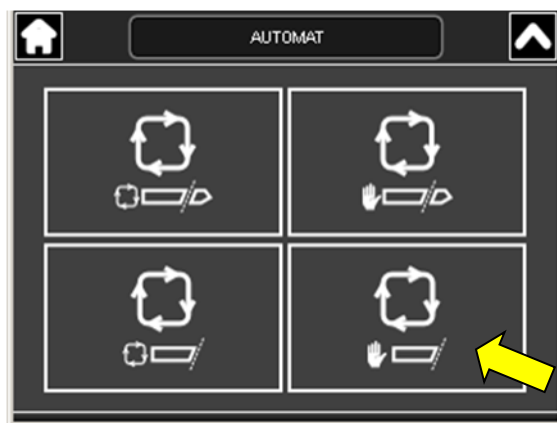
If you choose “No”

- 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 Emergency Stop Switch

In emergency cases, push the Emergency Stop Switch 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.

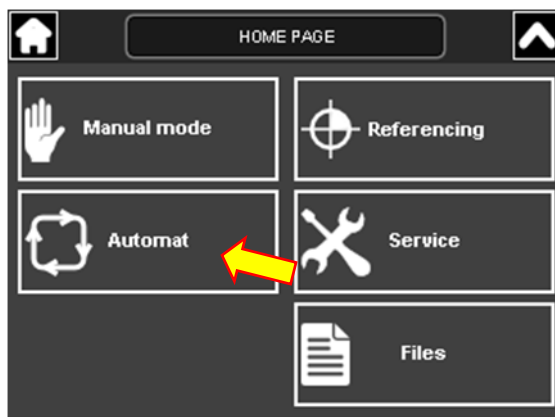
In this menu, you can also check the required lines to configure execution of a specific cutting cycle.

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

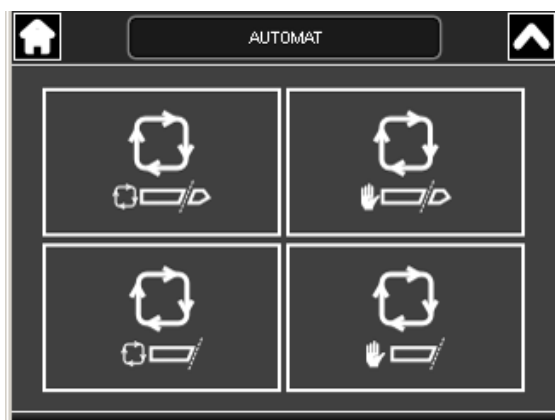
The automatic cycle always starts with the first checked nonzero line of the recipe, and proceeds stepwise by all of the following nonzero lines checked.

3.9.1.1. 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:



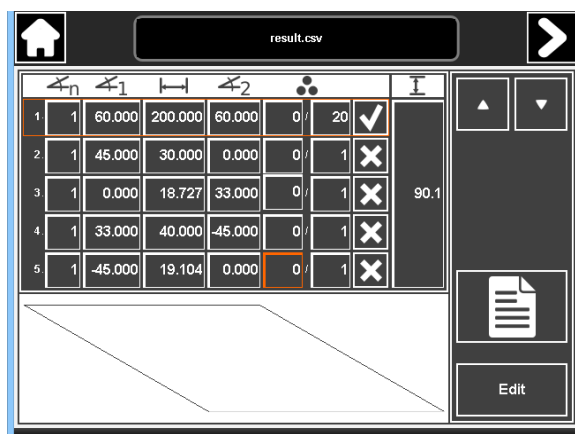
2. A screen appears with the options for material loading and cut-in



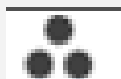
In this screen, choose the device, either as necessary or choose any option.

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.

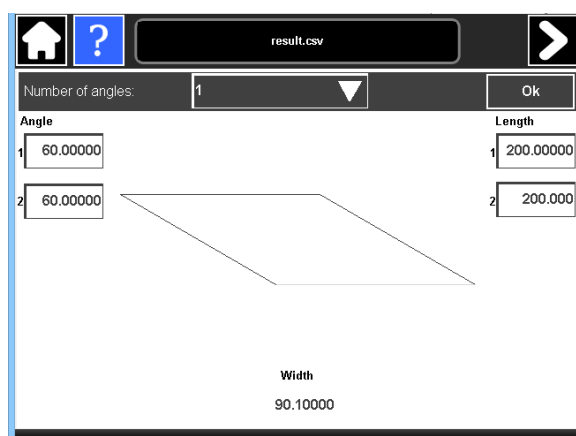
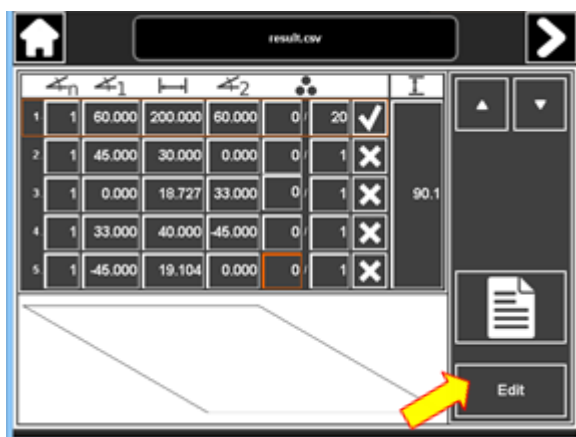


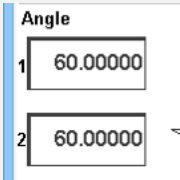
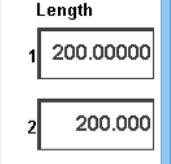
	1	2	3	4	5	6	7	8	9	10
1	1	60.000	200.000	60.000	0	20	✓			
2	1	45.000	30.000	0.000	0	1	✗			
3	1	0.000	18.727	33.000	0	1	✗			
4	1	33.000	40.000	45.000	0	1	✗			
5	1	45.000	19.104	0.000	0	1	✗			

Pos.	Function
	The name of the currently loaded recipe appears in the upper part of the screen
	Browsing between lines The browsed up line is highlighted in an orange box.
Edit	The selection for treatment of browsed line
	Data – icon for work with recipes (saving, loading, deleting...)
	Angle number at the front edge
	Angle at the front edge If the Angle number at the front edge = 1, this angle can be directly set in the recipe line. If the Angle number at the front edge is higher than 1, the angles can only be set in the screen for modification of the recipe line.
	Cut piece length
	Angle at the back edge
	Required number of pieces / Number of pieces already cut
	Material width The entire recipe is for one material width only.
	 – cut the given recipe line  – not cut the given recipe line
	Illustration of the shape set in the browsed up line

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

4. By means of the browsing option  or the "Edit" option in the recipe setting screen, **browse up the screen for setting the shape of the cut pieces in the browsed up line**



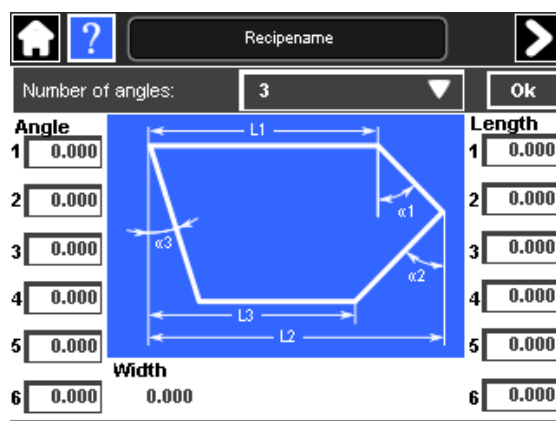
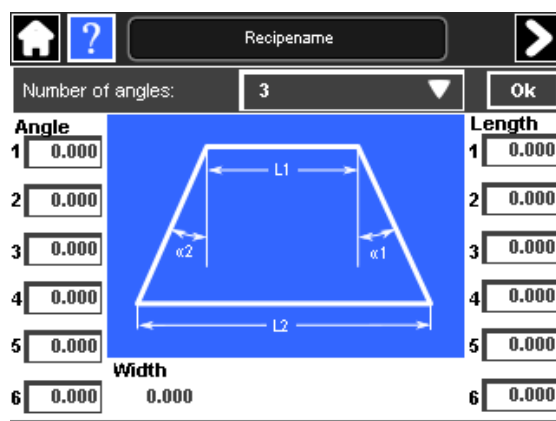
Pos.	Function
	Angle number at the front edge
	Angle at the front edge Number of displayed windows for angle setting= selected angle number at the front edge + one angle option on the back side. The number at the setting window indicates the set angle number – see also Help.
	Entered material width.
	Cut piece length The number of windows displayed for length settings corresponds to the selected number of angles at the front edge. Which length is set – see Help.

Pos.	Function
	Illustration of the shape set in the browsed up line If the piece setting is incorrect – that is, it cannot be cut off or it is unfeasible geometrically, the pattern contours are red.
	Confirmation of values set in the line and return to the recipe screen.
	Help

After you choose Help, a screen appears with a sketch showing what is set in the box of the pertinent number.

The illustration is adapted to the selected number of angles on the front side.

Help illustration examples:



5. 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. 

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

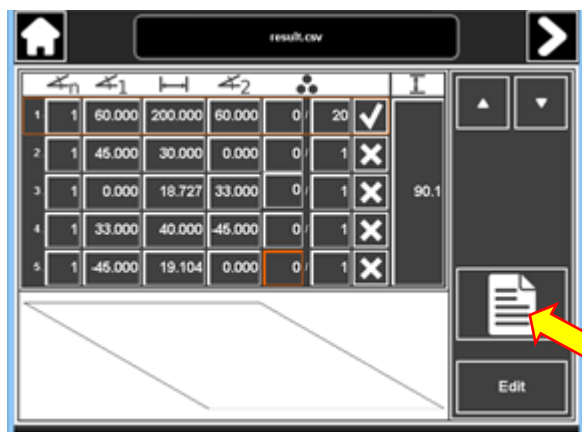
Attention!

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.

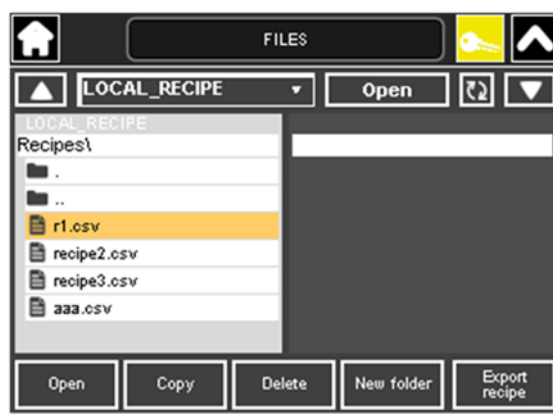
3.9.2. Saving the created recipe

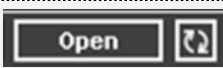
If the created (modified) recipe is not saved, the entered data will be deleted when another recipe is loaded.

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

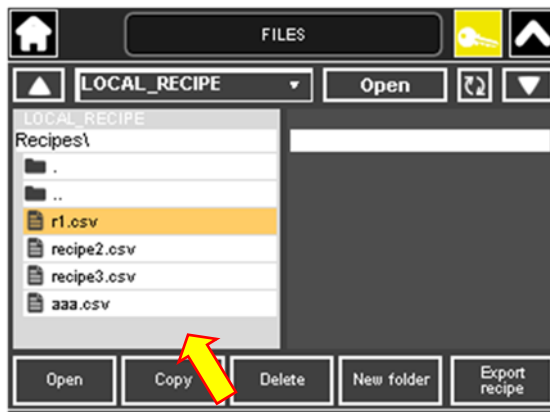


3. Objeví se obrazovka pro ukládání a načítání receptur

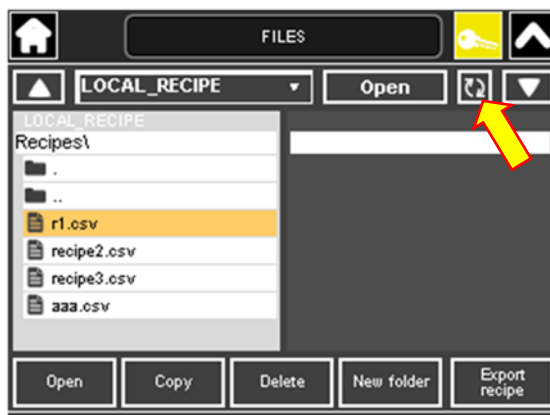


Pos.	Function
Open	open the marked folder or marked file
Copy	copy the marked folder or marked file
Delete	delete the marked folder or marked file
New folder	create a new folder
Export recipe	export the marked folder or marked file
	Pull-down menu for selection of disk (memory) for loading or saving 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

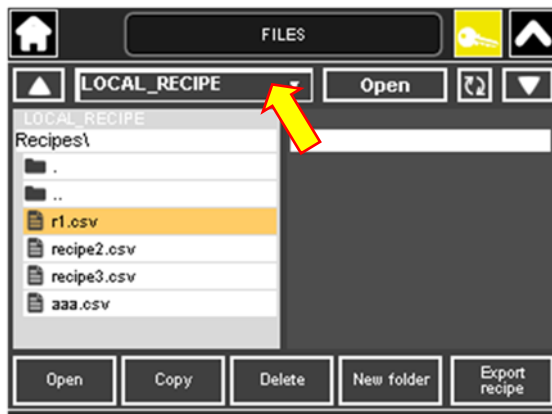
4. By touching, choose the active side of the window to view the memory in which you are to save – the screen is backlit in light grey



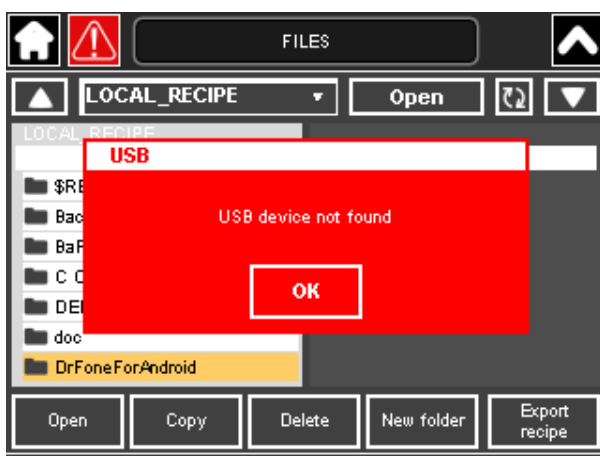
5. If you want to save a recipe to USB, insert the USB to the connector on the control panel and load the USB selecting the option (see arrow)



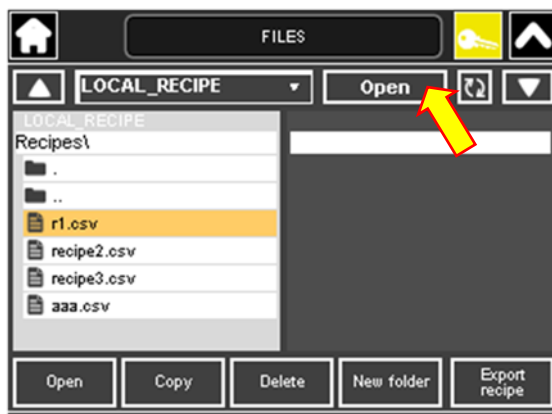
6. In the pull-down menu select the location (disc) you want to save to:
LOCAL_RECIPE – saving to the machine's memory
USB – save to USB



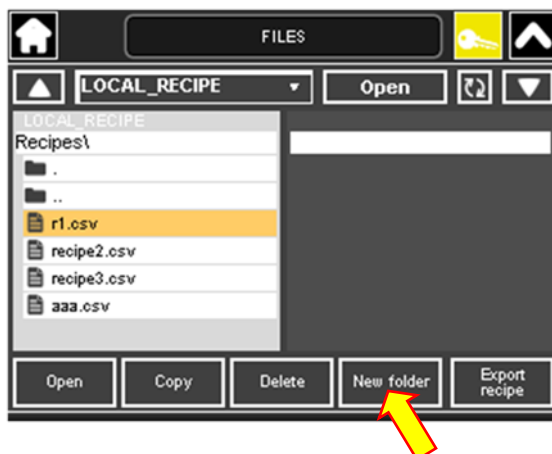
If you selected the option for saving to USB but had forgotten to insert an USB, a prompt will be displayed:



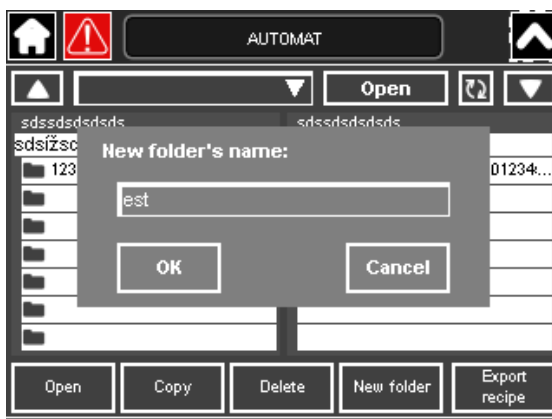
7. Open the selected disc location (Open-upper part of the screen) – its contents will be displayed in the active (gray) window



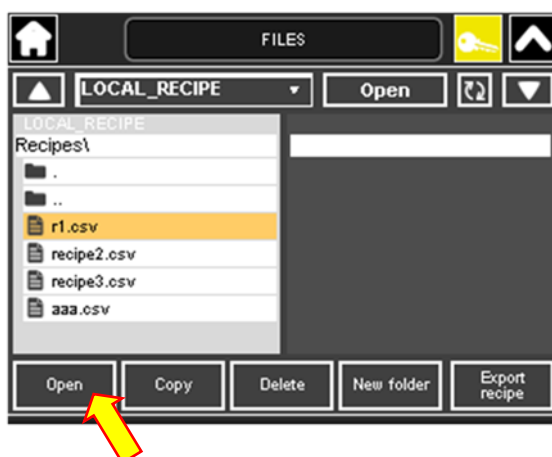
8. Select the option "New folder" to create a folder for insertion of the recipe sequence on the selected disc.



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.

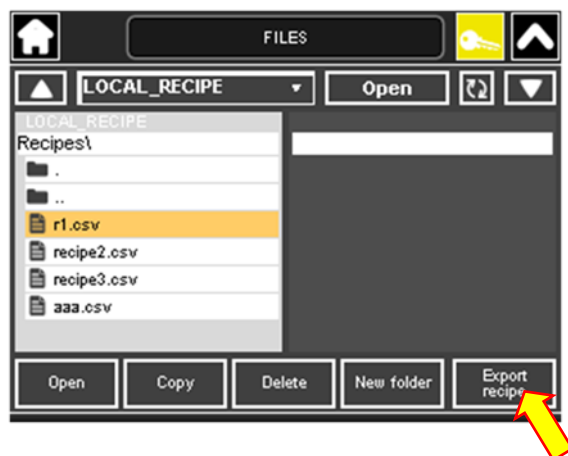


9. If saving in the folder, mark the pertinent folder; to open it, choose the Open option in the bottom left-hand corner.

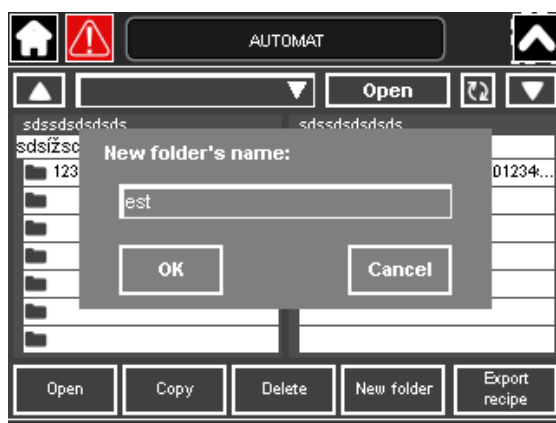


Otherwise the given sequence will be saved as a file in the memory directly.

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



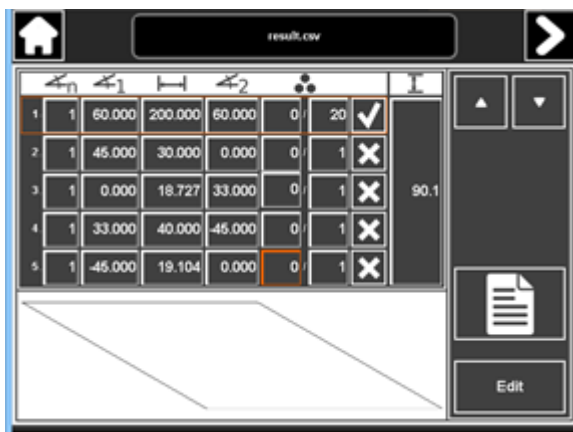
You will be asked to enter the file name under which the given recipe is to be saved.



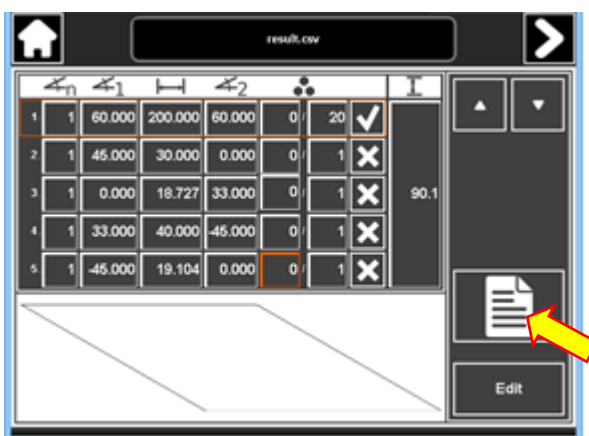
The prepared recipe will be saved in the selected place as a **file with the given name and the .csv extension**

3.9.3. Loading a saved recipe

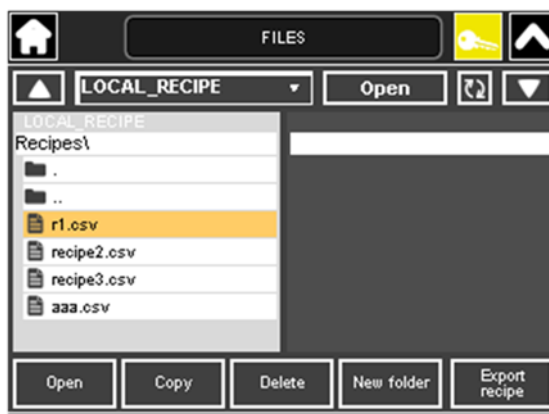
1. After the way of material loading and cut-in in the automatic cycle is chosen, a screen appears for loading a recipe, entering a new recipe or editing the loaded task (recipe)



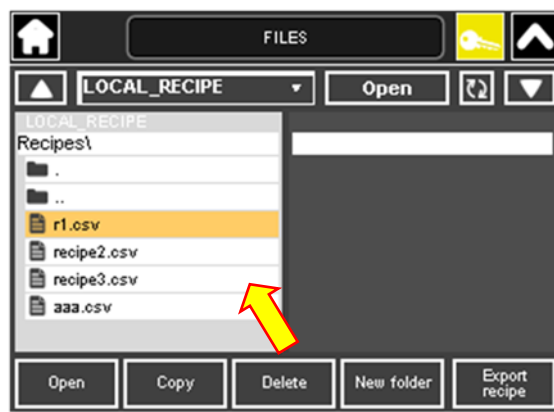
2. Choose the Files option on the screen showing the recipe



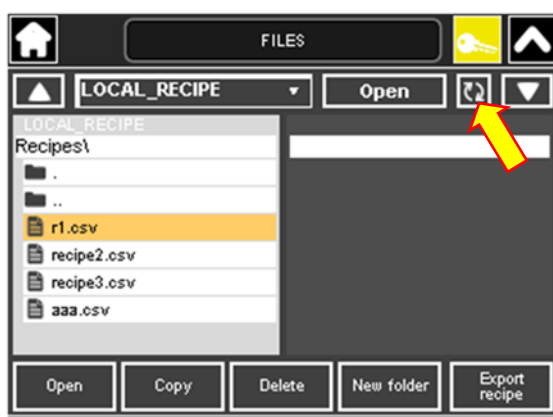
3. A screen appears for saving and loading of recipes



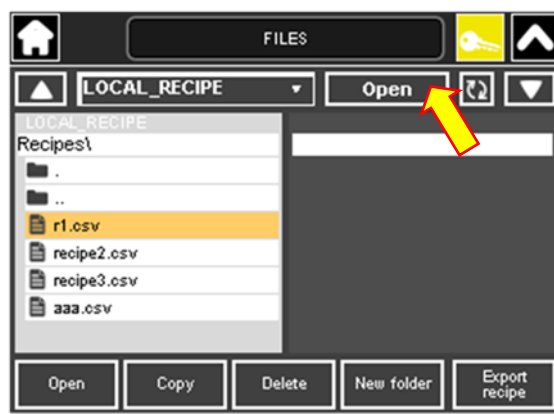
4. By touching, choose the window side which will be active to view the memory from which you want to load – the screen will be backlit in light grey



5. If you want to load from an USB, insert the USB to the connector on the left side of the control panel and load the USB by selecting the option for loading from USB.



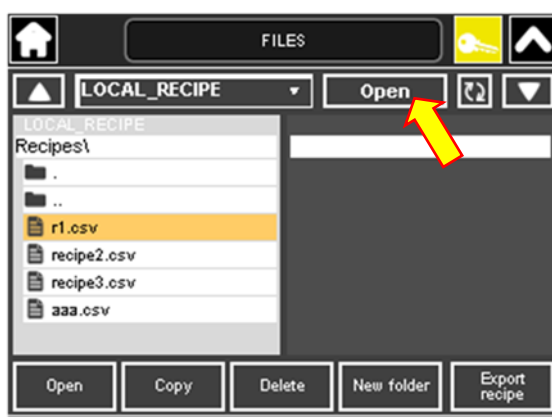
6. In the pull-down menu select the location (disc) you want to load from.
LOCAL_RECIPE – loading from the machine's memory.
USB – loading from an USB



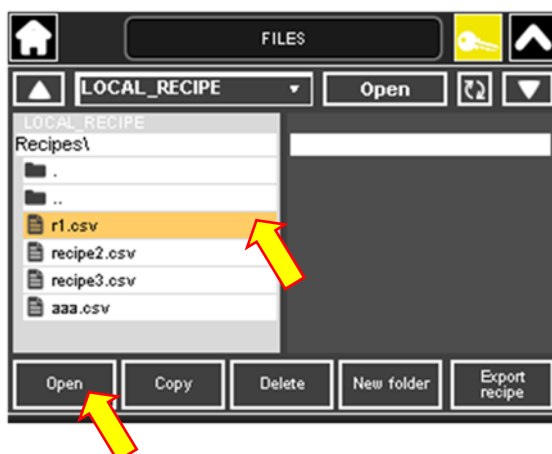
If you selected the USB option but had forgotten to insert a USB, a prompt will be displayed:



7. Open the selected disc location you want to load from (Open-upper part of the screen) – its contents will be displayed in the active (gray) window

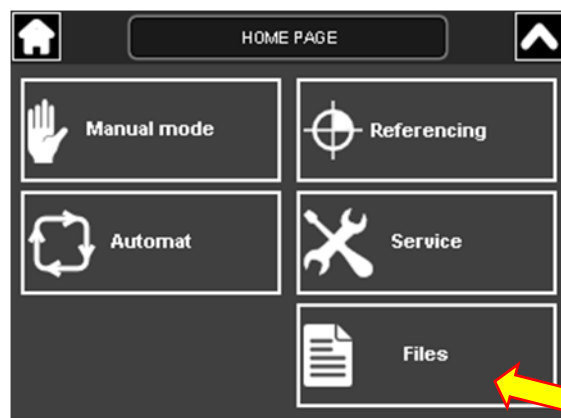


8. Browse up the pertinent recipe (.csv file) and open it with Open – left at the bottom.

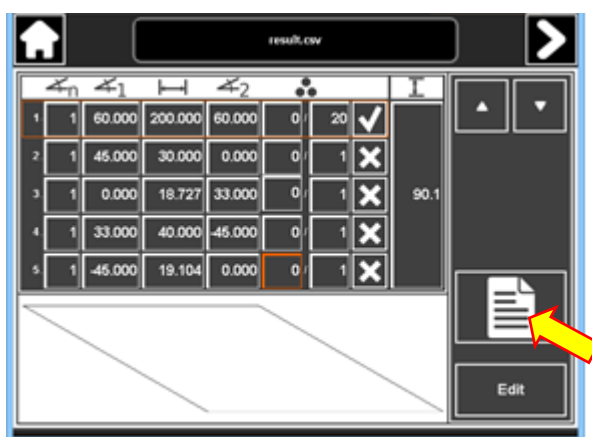


3.9.4. Copying USB / LOCAL_RECIPE

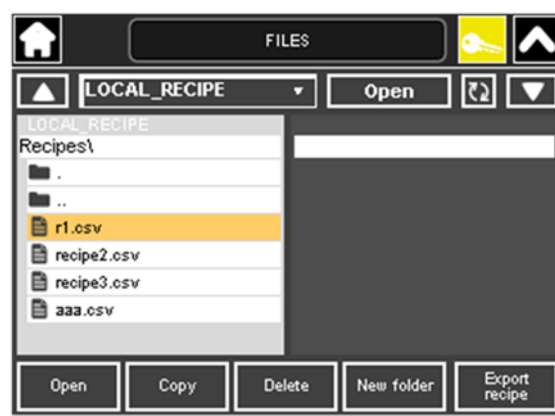
1. On the main screen of the control software select the option Files.



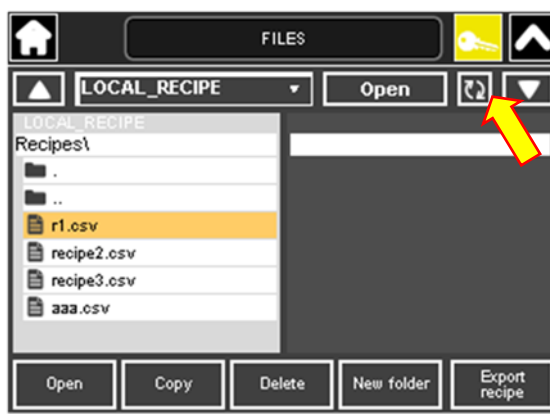
Or choose the Files option on the screen showing the recipe



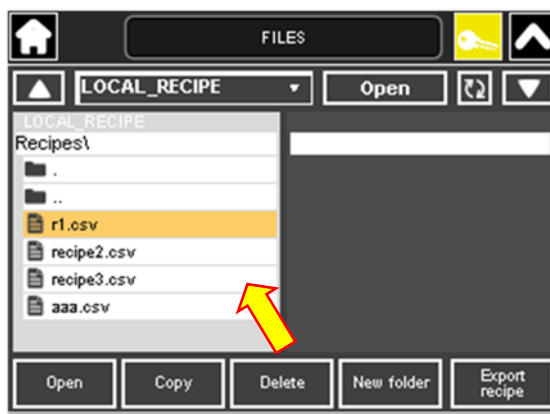
2. A screen appears for saving and loading of recipes



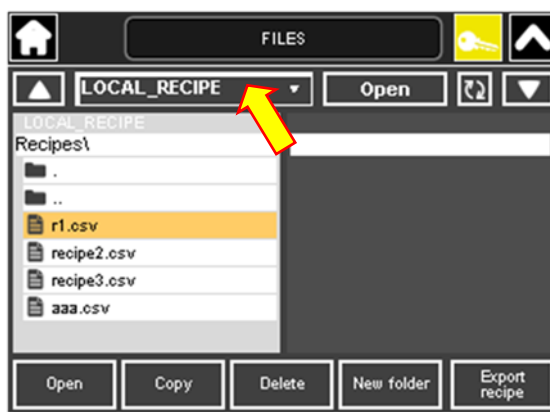
3. Insert the USB to the connector on the left side of the control panel and load the USB by selecting the option for loading from USB



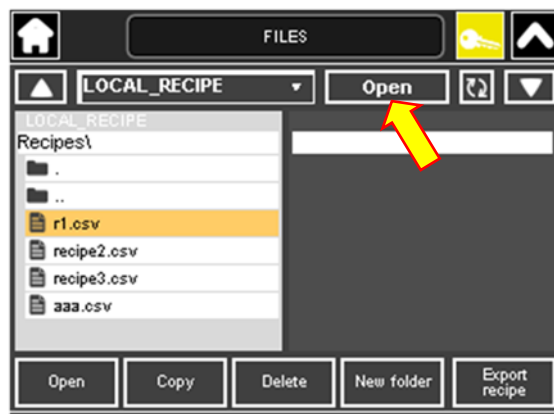
4. Select with touch the side of the window that will be active for displaying the location, you want to **copy from**.



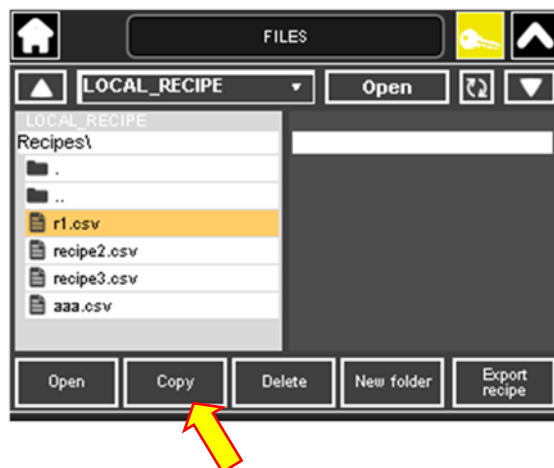
5. Select the memory (disc) in the pull-down menu you want to **copy from** (LOCAL_RECIPE / USB)



6. Open the selected disc location (Open-upper part of the screen) – its contents will be displayed in the active (gray) window

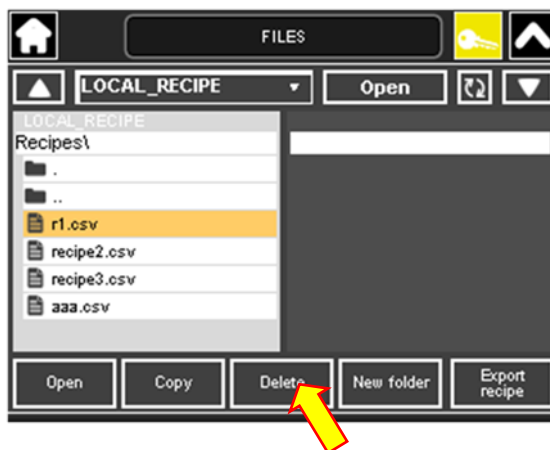


7. Repeat steps 2,3,4, on the other side of the window for memory, you want to **copy to**.
8. Find desired file or folder, select it and copy it using the option "Copy"



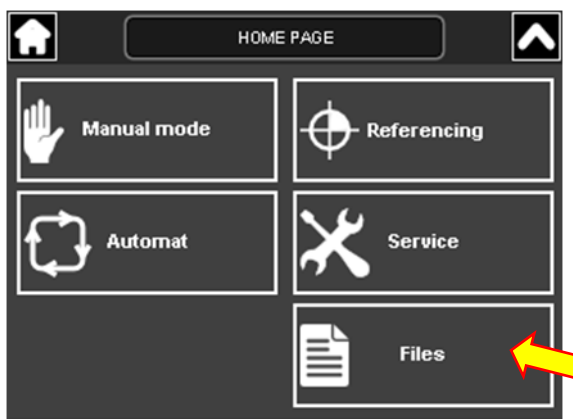
3.9.5. Deleting a recipe from the machine memory

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.



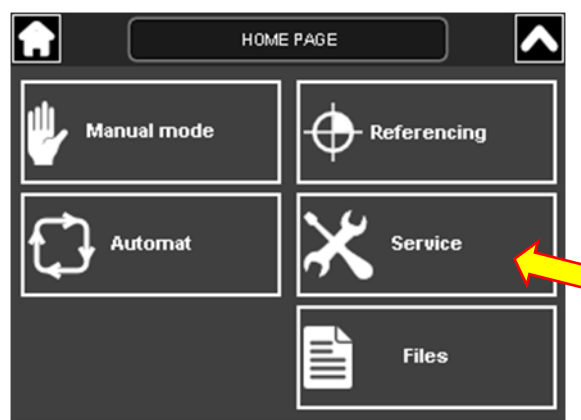
Note:

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

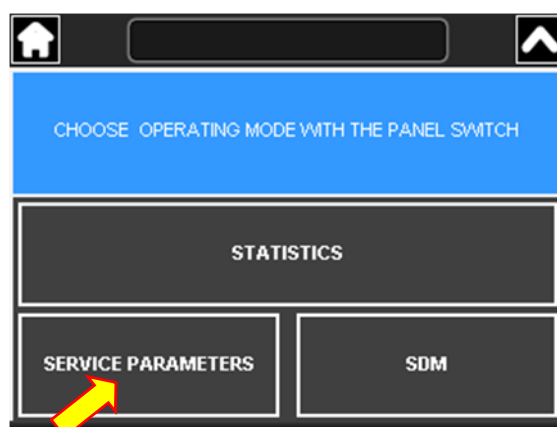


3.10. Setting of service parameters

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.

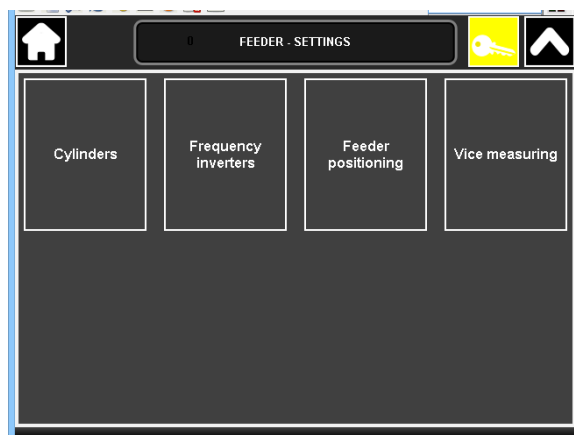
Again, you can enter the password with the keyboard activated by touching in the box for password entry.

3.10.2. Setting the feeder service parameters

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

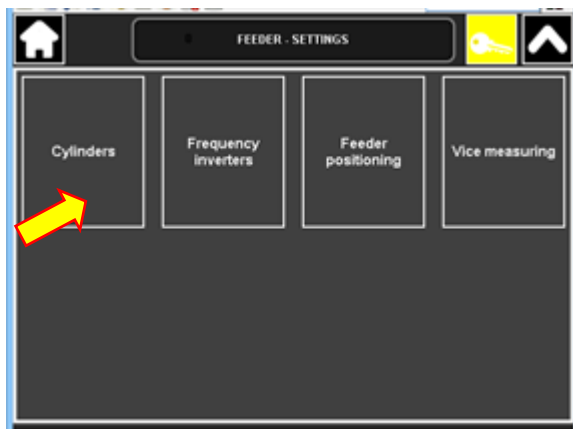


2. The next screen contains options for setting the feeder units

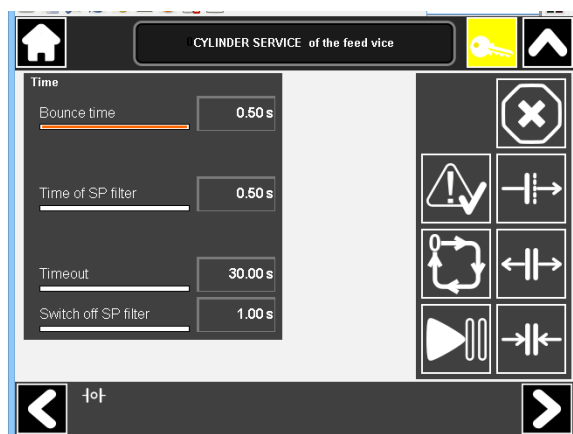


3.10.2.1. Feeder cylinder

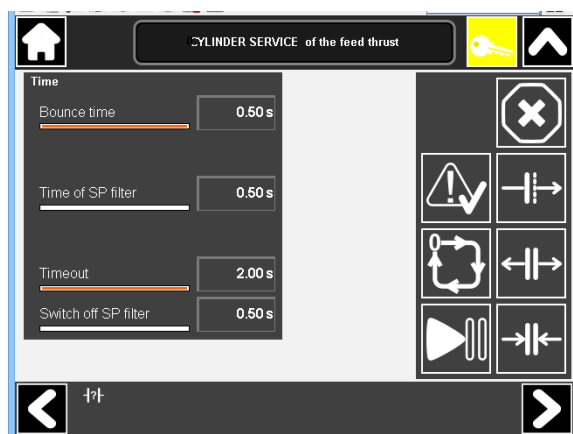
In the "Cylinders" service parameter under the service parameter settings, you can set the individual service parameters of hydraulic cylinders:



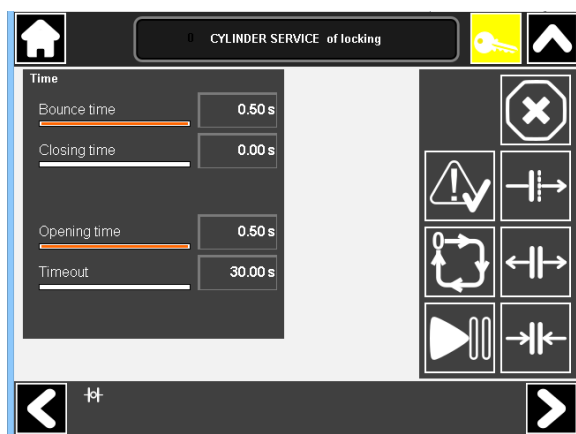
- feeder clamping jaws (hierarchical level 2)



- feed thrust (hierarchical level 2)



- locking (hierarchical level 2)



Pozice	Function
Bounce time	Vice cylinder bounce-off time Caution! The maximum admissible bounce-off time is the time necessary for the bounce-off size of 20mm (the maximum permissible bounce-off size)! If the bounce-off time interval is longer, its size increases and there is a risk of collision!
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
Clamping time	Clamping time
	Current state display  - vice is opening  - vice is closing  - unknown state
	Error message. If no error occurs, the error message box is empty.

Pozice	Function
	Error confirmation
	Restart, value settings remain.
	Interruption and restarting the line.
	Stop
	Vice bounce-off
	Release vice
	Clamp vice

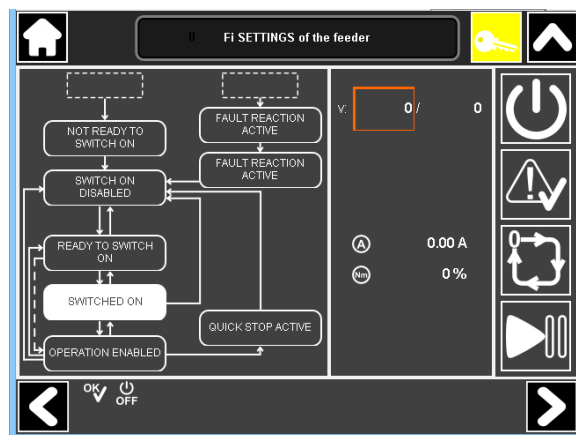
3.10.2.2. Feeder frequency converter diagnostics

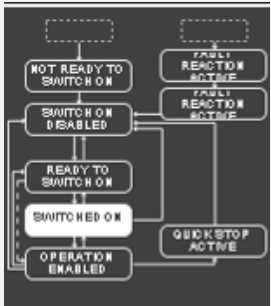
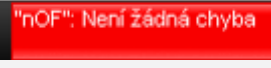




In the "Frequency converters" service parameter, parameters are displayed for diagnostics of the feeder frequency converter.

- Feeder frequency converter (hierarchical level 2)

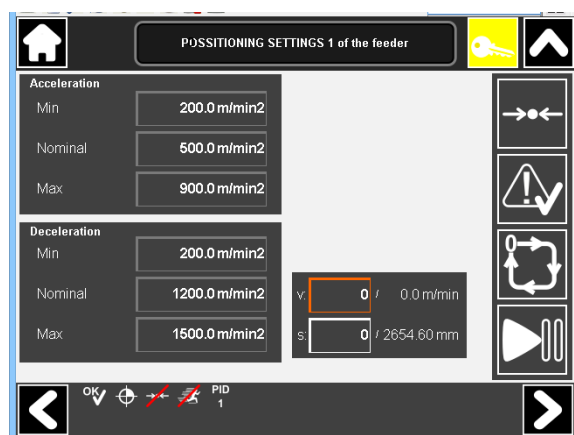


Pos.	Function
	State diagram of the current frequency converter
	- OK – start-up state of the frequency converter - Converter state: ON / OFF - Error message on the given frequency converter
	Entered / real converter speed 0.1 Hz or in rpm
	Current value of the current flowing to the motor
	Current value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

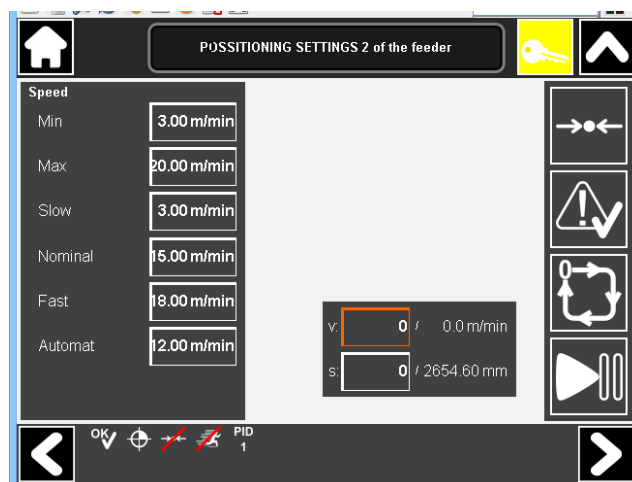


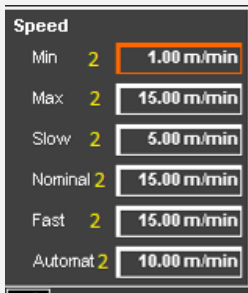
- Screen no.1 (hierarchical level 2)



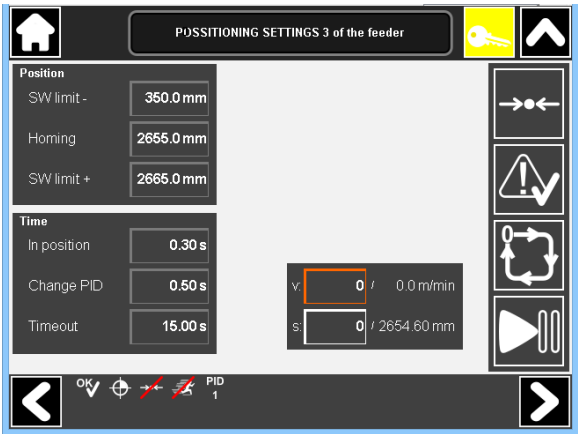
Pos.	Function
Acceleration Min 2 100.0 m/min² Nominal 2 1000.0 m/min² Max 2 2000.0 m/min²	Setting of unit movement acceleration in the given axis
Deceleration Min 2 100.0 m/min² Nominal 2 1000.0 m/min² Max 2 2000.0 m/min²	Setting of unit movement deceleration in the given axis

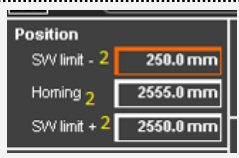
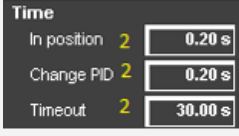
- Screen no. 2 (hierarchical level 2)



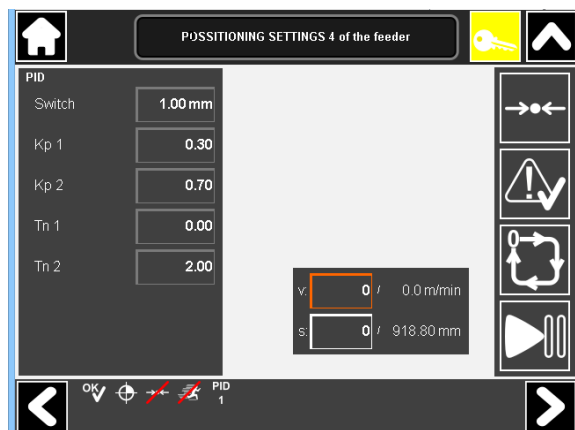
Pos.	Function
	Setting of positioning speed parameters • Minimum speed • Maximum speed • Low speed • Nominal speed • High speed • Speed in the automatic mod

- Screen no. 3 (hierarchical level 2)



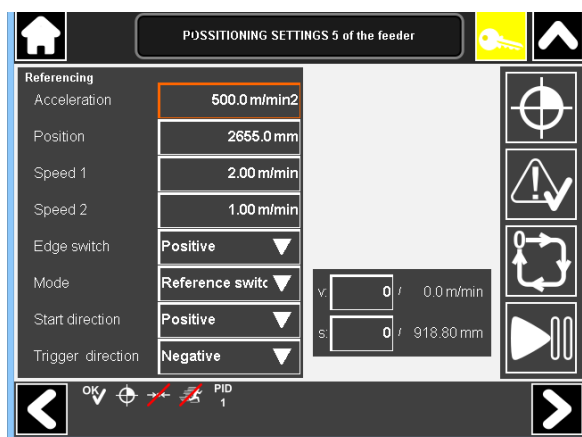
Pos.	Function
	Setting of minimum allowed unit position • Unit reference position • Maximum allowed unit position
	• The “in position” time value is the time for which the position must be in tolerance to finish the movement. • The “Change PID” time value is without function. • The “Timeout” time value 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 Switch 3 0.30 mm Kp 1 3 0.50 Kp 2 3 0.70 Tn 1 3 0.00 Tn 2 3 0.00	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

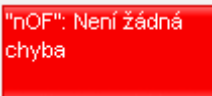
Pos.	Function
Speed 1 (hierarchical level 2)	Speed at search for reference switch
Speed 2 (hierarchical level 2)	Speed of running from reference position
Edge switch (hierarchical level 3)	Edge at which movement stops during search for reference switch
Mode (hierarchical level 3)	Reference type • Directly 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)

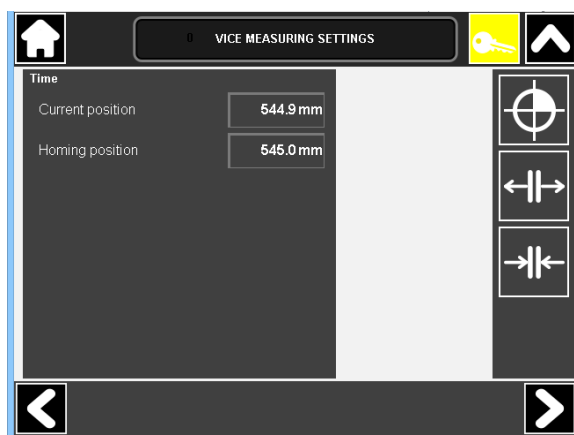


Pos.	Function
Units Encoder increments	Position measurement – used for measurement correction

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

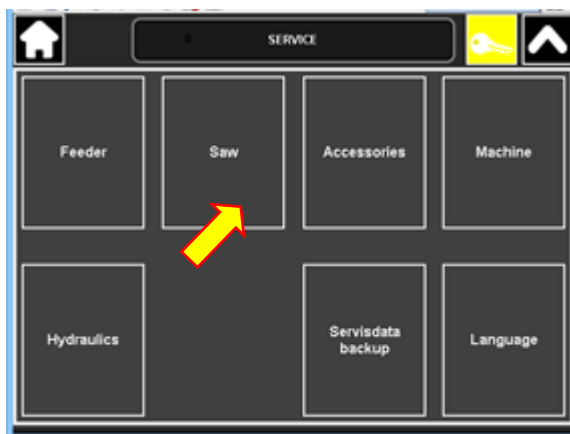
3.10.2.4. Vice measuring



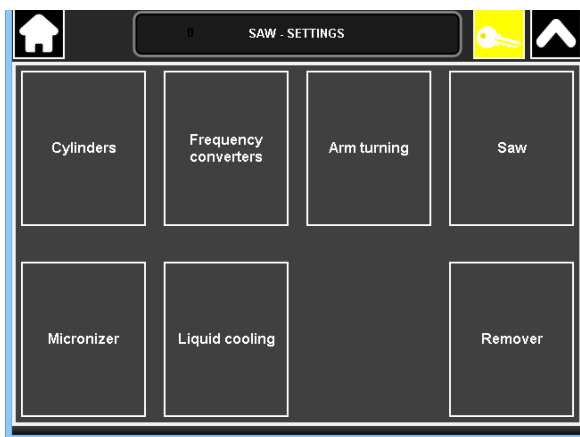
Pos.	Funcion
Time	
Current position	Current vice position
Homing position	Vice opening width
 	The unit is / is not referenced
	Opening of the vice
	Clamping of the vice

3.10.3. Setting of the saw service parameters

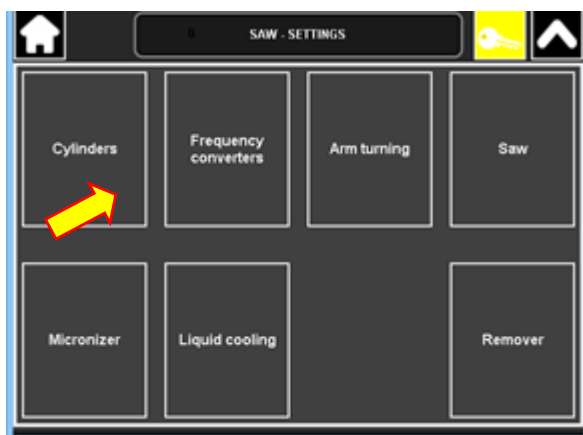
1. In the screen for setting unit selection, choose the "Saw" option"



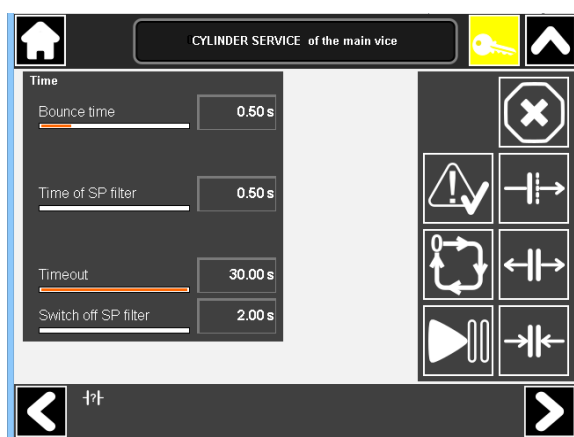
2. The following screen contains options for the saw unit settings



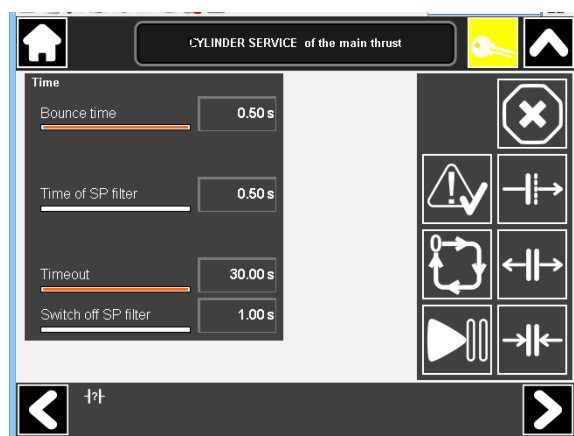
3.10.3.1. Service parameters of the saw hydraulic cylinders



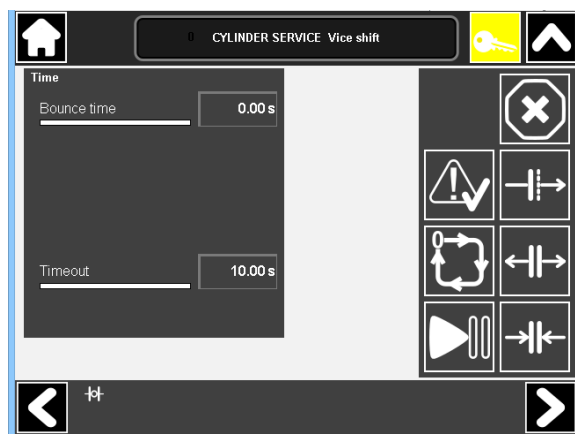
3. Screen no.1 – service of the cylinder of the main vice (hierarchical level 2)



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



5. Screen no.3 - service of the cylinder of the vice shift (hierarchical level 2)

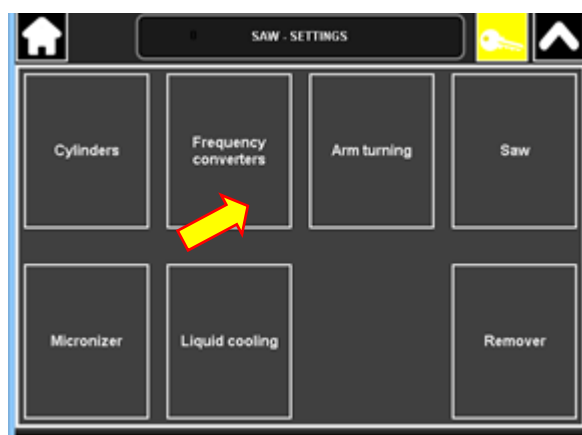


The description of the cylinder screens applies to all screens for setting of cylinder service parameters:

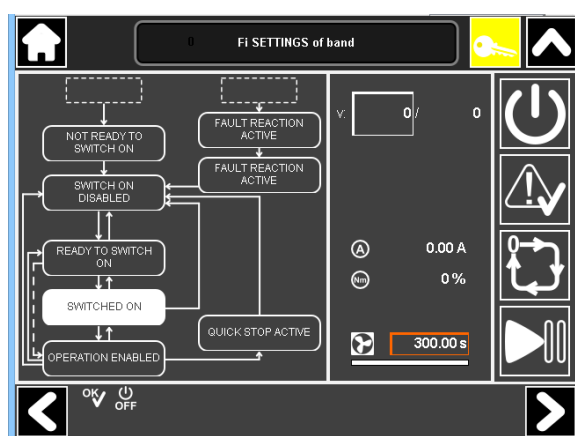
Pozice	Function
Bounce time	Vice bounce-off time
Time of SP filter	Switching filter time, filter for attenuation of overswings at the limit switch, during movement toward the limit switch
Timeout	Time limit for the vice opening and closing
Switch off SP filter	Switching filter time, filter for attenuation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

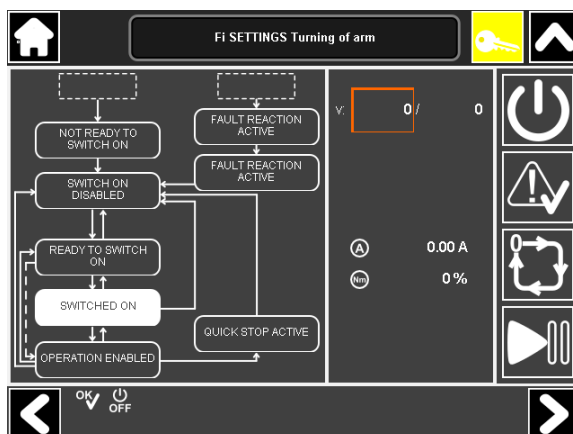
Pozice	Function
	Bounce-off
	Release
	Clamp

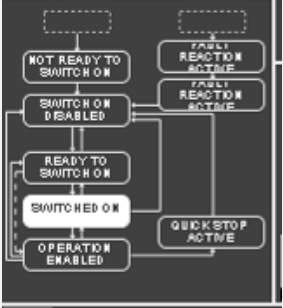
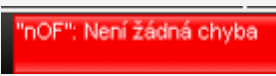
3.10.3.2. Diagnostics of the saw frequency converters (hierarchical level 2)



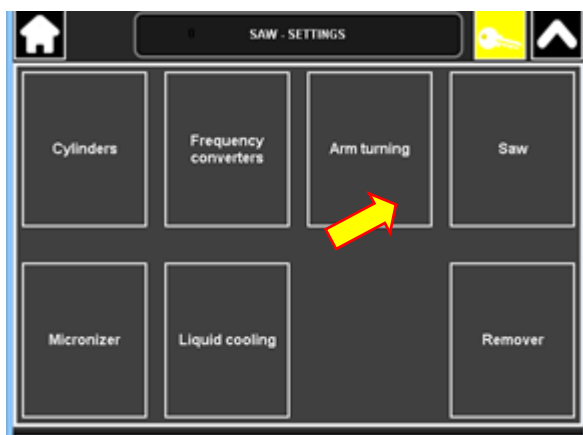
The "Frequency converters" service menu under the saw settings enables display of the individual service parameters of the frequency converters for setting the band speed and arm rotation speed



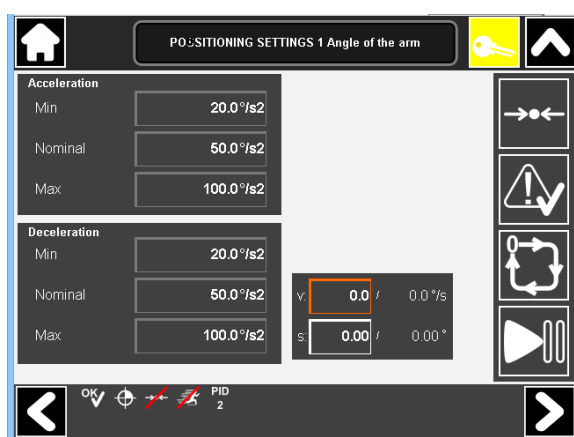


Pos.	Function
	State diagram of the current frequency converter.
	Converter state: ON / OFF OK – frequency converter start-up state Error message at the given frequency converter
	Entered and real speed of the frequency converter 0.1 Hz or in rpm
	Current value of the current flowing to the motor
	Current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

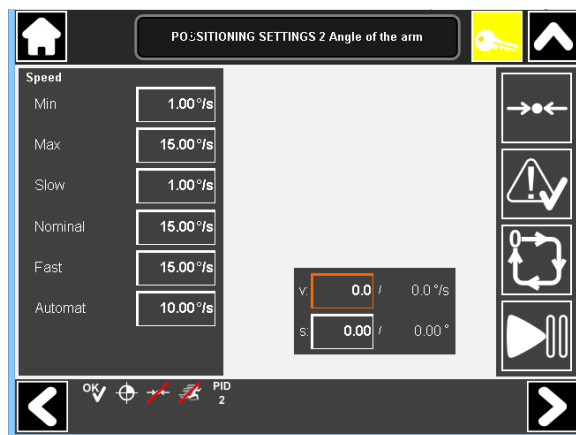


- Screen no.1 (hierarchical level 2)



Pos.	Function
Acceleration Min 2 20.0 %/min² Nominal 2 50.0 %/min² Max 2 100.0 %/min²	Setting of unit movement acceleration in the given axis
Deceleration Min 2 20.0 %/min² Nominal 2 50.0 %/min² Max 2 100.0 %/min²	Setting of unit movement deceleration in the given axis

- Screen no.2 (hierarchical level 2)



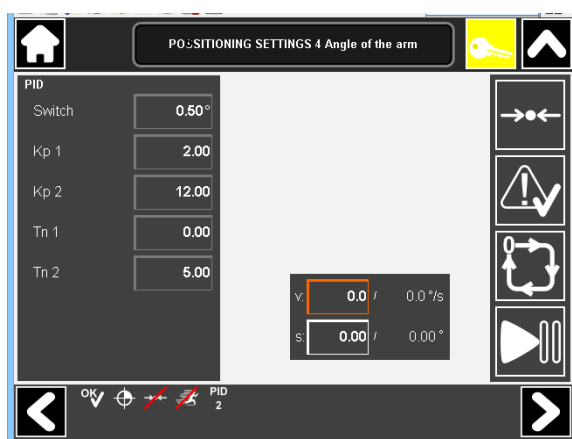
Pos.	Function
Speed Min 2 1.00 °/min Max 2 15.00 °/min Slow 2 1.00 °/min Nominal 2 15.00 °/min Fast 2 15.00 °/min Automat 2 10.00 °/min	Setting of positioning speed parameters - Minimum speed - Maximum speed - Low speed - Nominal speed - High speed - Speed in the automatic mode

- Obrazova č. 3 (hierarchical level 2)



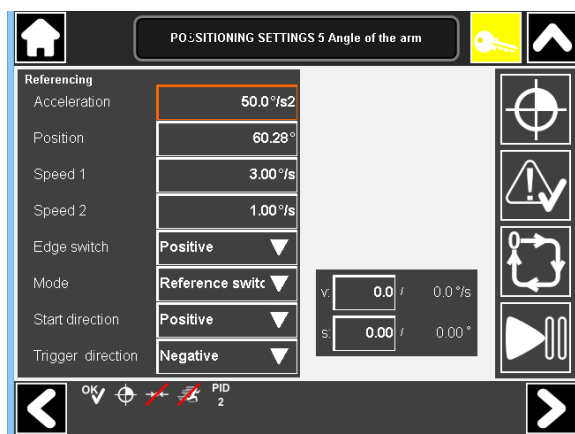
Pos.	Function
Position SW limit - 2 -60.0 ° Homing 2 43.8 ° SW limit + 2 45.0 °	Setting of the minimum allowed unit position - Unit reference position - Maximum allowed unit position
Time In position 2 500 Change PID 2 500 Timeout 2 2000	- The "in position" time value is the time for which the position must be in tolerance to finish the movement - The "movement" time value is without function. - The "Timeout" time value is the time after which the regulator parameters are switched over; after the double of the preset value, an error is reported, positioning is impossible.

- Screen no. 4 (hierarchical level 3)



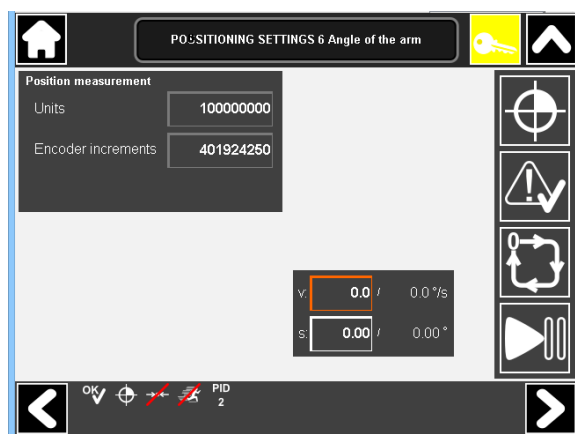
Pos.	Function
PID Switch 3 0.50 ° Kp 1 3 2.00 Kp 2 3 4.00 Tn 1 3 0.00 Tn 2 3 0.00	PID regulátor - Switch-over – position tolerance after switch-over of parameters - KP1 – parameter, proportional component 1 - Tn1 – parameter, integration component

- Screen no. 5



Pos.	Function
Acceleration (hierarchical level 2)	Unit acceleration at reference
Position (hierarchical level 2)	Unit reference position
Seed 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

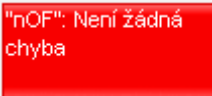
- Screen no. 6 (hierarchical level 3)



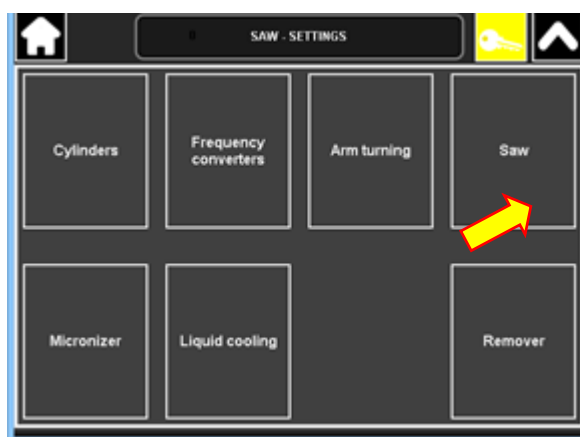
Pos.	Function
Units	Position measurement – used for measurement correction
Encoder increments	

Meaning of other symbols in the positioning screens

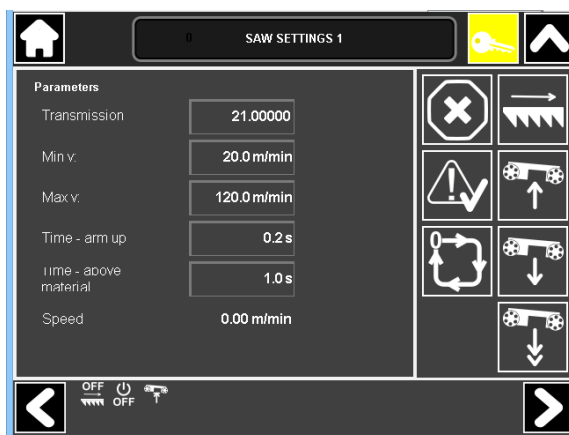
Pos.	Function
	Unit prepared
	The unit is / is not referenced
	The unit is / is not in position
	Currently used PID regulator settings
	Entered / real unit speed
	Entered / real unit position
	Unit travel to position
	Error confirmation
	Reset

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

3.10.3.4. Saw settings



- Screen no.1



Pos.	Function
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

Pos.	Function
Time – arm up (hierarchical level 2)	Time for which the arm drive remains active for upward movement after the sensor signals that the arm is in the upper position
Time above material (hierarchical level 2)	Time for which the arm drive remains active for upward movement after the sensor signals that the arm is in the given position over the material
Speed (hierarchical level 2)	Current band speed

- Screen no.2



Pos.	Function
Min. (hierarch. Level 3)	Minimum band speed Minimum recommended value of Min v = 20; at lower speed, the band may stuck in the material
Max. (hierarch. Level 3)	Maximum band speed Maximum recommended value of Max v = 120
Max. AI hierarch. Level 2)	Maximum potentiometer range for the band speed. Factory setting Change the given setting upon consultation with the manufacturer only.
Speed	Current speed of the arm feed.

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.

- Screen no.3 – Band deviation

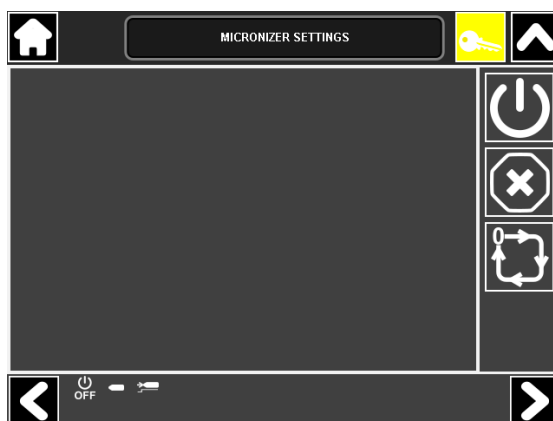
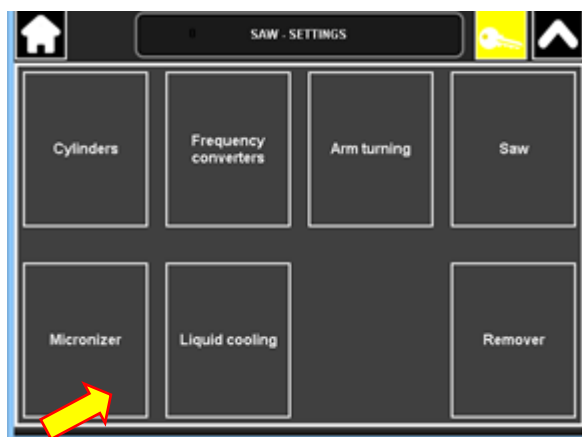


Pos.	Function
Reaction on deviation	Select the desired machine response in case the preset deviation limit is exceeded Not used – no response Signal only – just light indication Finish cutting – the ongoing cut will be finished and then the machine stopped Interrupt cutting (Stop) – the machine is stopped immediately
Sensor value	Current deviation in sensor units
Actual deviation	Current deviation in mm
Max. deviation	Maximum deviation measured during one measuring cycle
Deviation for signalisation Deviation – break after cut Deviation – break cut	Deviation values for the individual machine reactions
Sensor ratio	Machine transmission constant. The parameter has been factory set. Do not change the parameter value! The parameter affects the equipment accuracy.
Calibration time	Band running time to reset the deviation Recommended to keep the factory settings

The band deviation sensor is located in the holder of the adjustable cube guiding the saw band

The signalling light to indicate exceeding of the band deviation is located on the upper cover wall above the outlet saw hole

3.10.3.5. Setting of Micronizer (hierarchical level 2)



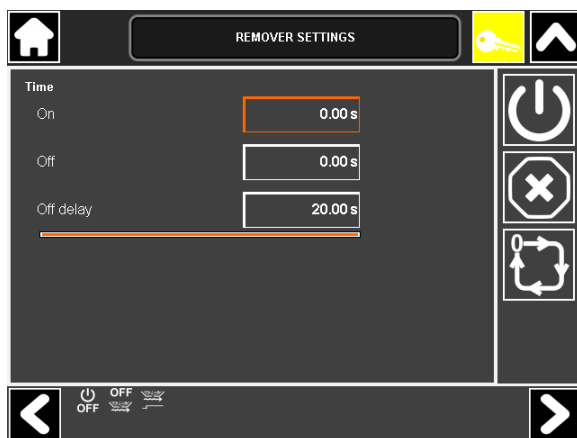
Pos.	Function
	Micronizer state: ON or OFF
	Micronizer is set without timing, continues to run.
	Switch on/off the Mikronizer
	Stop
	Restart, value settings remain.

3.10.3.6. 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.

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

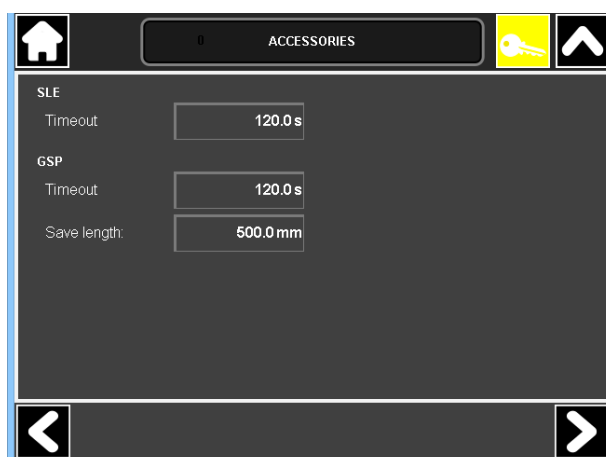
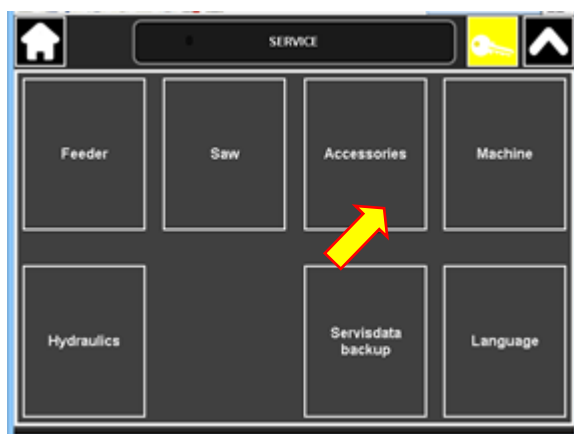


Pos.	Function
Pulse length	Time, for which the remover motor is on
Perioda	Time duration of the interrupted cycle of chip removal
Off delay	Time in which the chip removing process is finished after the last cut is completed
	Remover state: ON or OFF
	Remover on state
	Remover setting indication
	Switch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

Pos.	Function
	Restart, value settings remain.

3.10.4. Accessories

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



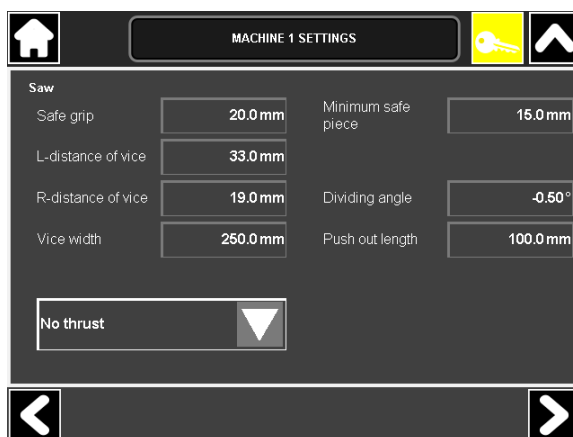
Pozice	Function
SLE	
Timeout	Time limit for which the saw is waiting for material from the loader before declaring an error
GSP	
Timeout	Time limit for which the saw is waiting for a signal that the material has been removed before declaring an error
Save lenght	Maximum piece length at which it is not necessary to wait for removal

3.10.5. Setting of the machine service parameters

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



- Screen no.1



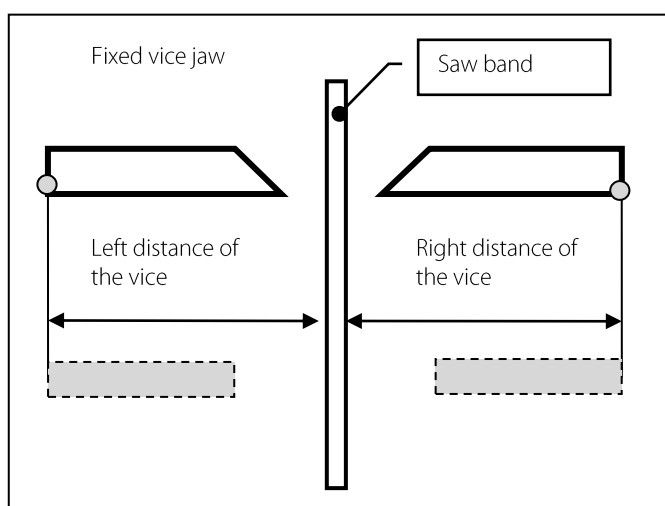
Pos.	Function
Safe grip (hierarchical level 2)	Minimum length beyond which the main vice can clamp the material safely.. If the resultant clamping length of the cut piece is shorter, the piece is evaluated as residual. See Note 1
L-distance of vice (hierarchical level 2)	Left distance of the vice See Picture 1 If the vice table on the left of the band is set outside the set value during cutting, this position is evaluated as an error. See Note 1
R-distance of vice (hierarchical level 2)	Right distance of the vice See Picture 1 If the vice table on the right of the band is set outside the set value during cutting, this position is evaluated as an error. See Note 1

Pos.	Function
Vice width (hierarchical level 2)	Vice width = width of the moving jaw of the vice
Minimum safe piece (hierarchical level 2)	Minimum safe piece for cutting See Note 1
Diving angle (hierarchical level 2)	Angle at which the saw control software decides to transfer the vice. The machine manufacturing deviations are also added to the zero angle. See Note 1
Push out lenght (hierarchical level 2)	Distance from the band at the 0° angle to the front edge of the material pushed out If the set material length to be cut is lower than the length pushed out, the feeder first moves the clamped and fed material forwards, in which way the cut piece is pushed out, and then the feeder returns the clamped and fed material to the initial position for length feeding. If the feeder contains a short piece which will no longer enable the material to be pushed out, the machine reports an error. If the set material length to be cut is higher than the length pushed out, the feeder only executes movement for length feeding.
Pull-down menu (hierarchical 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.

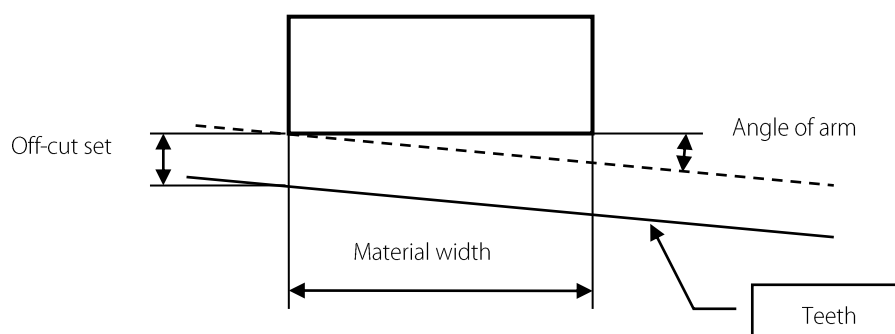
Notice 1

Caution! The set parameters are evaluated for simple cuts only! For multiple cuts, the parameters are not evaluated!

Picture 1 Left / right distance of the vice



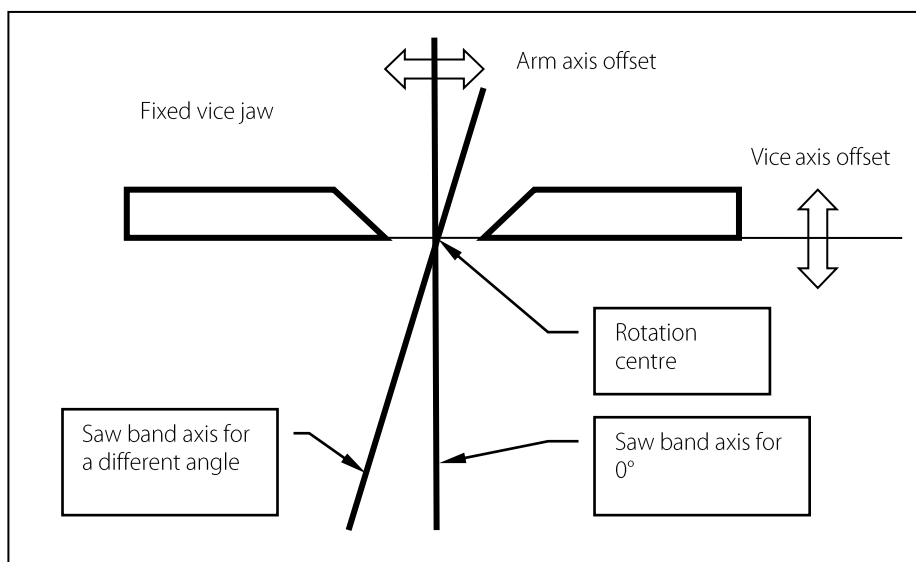
Picture.2 – Off-cut depth



- Screen no.2 (hierarchical level 2)

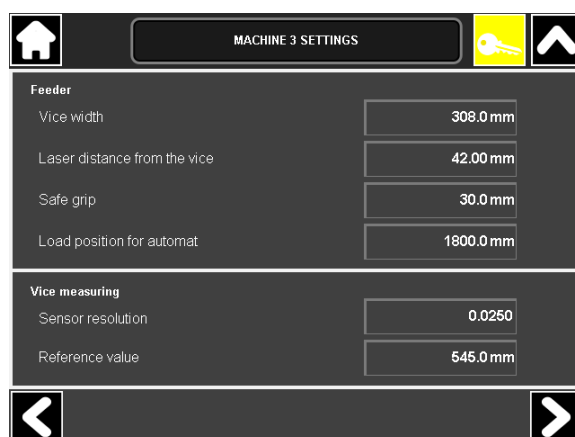


Pos.	Function
Band width	The value is either read from the Wizard correction belt or can be directly entered.
Saw arm offset	Saw arm axis offset from the ideal state In the ideal state, the arm rotation centre lies in the intersection of the vice area and the arm axis for rotation 0, which is identical with the axis of the gap in the fixed jaw of the vice. See Picture 3
Vice offset	Vice axis offset from the ideal state. See Picture 3
Wizard	Cut correction guide Menu for setting of correction parameters The correction parameters have an effect on the cut piece length accuracy.



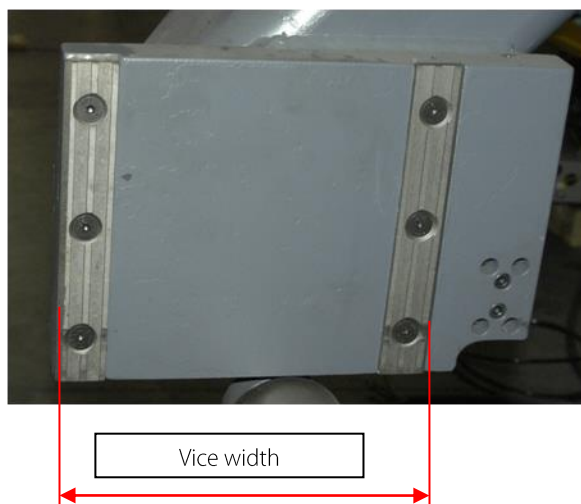
Picture 3

Screen no.2 (hierarchical level 2)



Pos.	Function
Feeder	
Vice width	Feeder vice jaw width See Picture 1
Laser distance from the vice	Distance of the laser beam from the nearest edge of the feeder jaw See Picture 2
State grip	Minimum length beyond which the feeder vice can clamp the material safely. If the resultant clamping length on the cut piece is shorter, the piece will be evaluated as residual.
Aut. Loading feeder position	Position to which the feeder moves to clamp the material in the automatic mode with automatic material loading.
Vice measuring	
Sensor resolution	Value identical with the value of Setting of the feeder vice measuring – see the feeder settings.

Pos.	Function
Reference value	Value identical with the value of Reference position – see the feeder settings Setting of the reference position of the feeder vice moving jaw The value is set after measuring on the machine installed Recommended value 539.60 mm

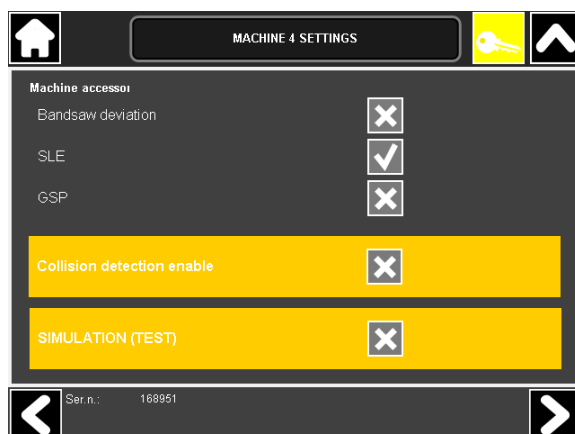


Picture 1



Picture 2

- Screen No.4 (hierarch. level 2)



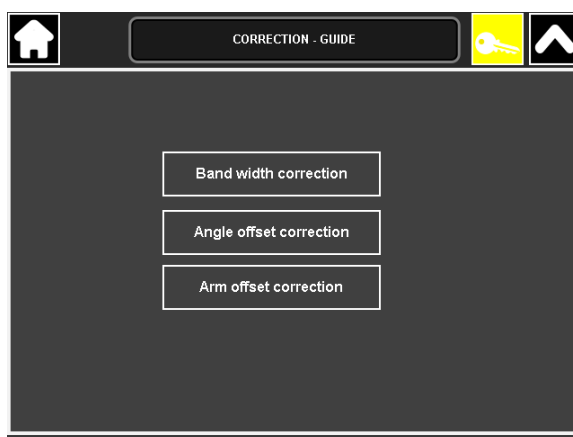
Pos.	Function
Machine accessories	List of optional accessories. Accessories installed on the machine are marked with a check.
Collision detection enable (Hierarchical level 3)	Option for service purposes. Caution!! If this option is active, it is necessary that the operator takes heed of all collision states!
SIMULATION (TEST)	Option for starting the function test. The function test involves simulated automatic cycle according to the recipe loaded. The saw performs all actions except for cutting with simulated endless material.

3.10.5.1. Band correction guide (Wizard)

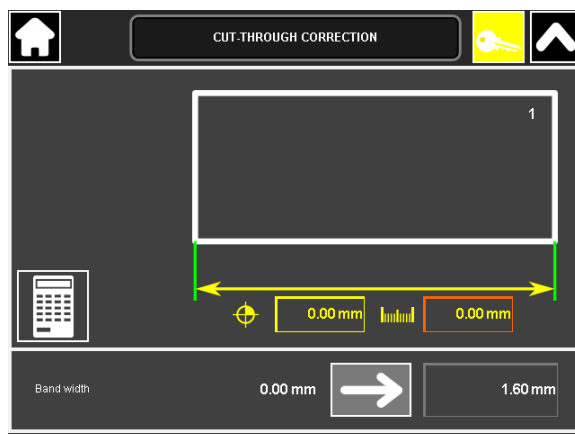
The band correction guide can be started in the screen No. 2 of the "Machine settings" service menu – the screen titled "Machine settings 2"



The menu enables setting of parameters for the band width correction, band axis offset correction and correction for the arm axis offset.



Band width correction (Cut-through correction)

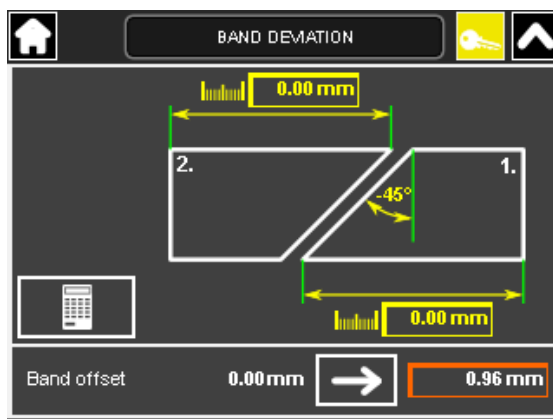


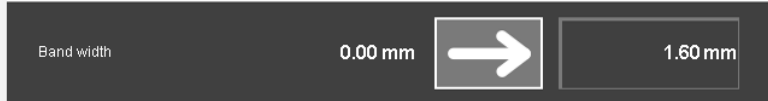
Pos.	Function
	Required piece length Enter the required (set) piece length
	Real piece length Enter the real (measured) piece length
	Option for correction calculation After entering the lengths, push to calculate the correction.
	
	Display of the correction calculation results
	Confirmation - confirmation of the correction calculation result displayed
	Saving - saving of the correction calculation result displayed

To perform the off-cut correction:

1. Cut **1 test piece of the material from one bar of the required length with both faces cut at the angle of 0°**
2. Measure the real length of the piece cut off.
3. Enter the required and really measured length of the test piece in the pertinent entry boxes in the screen for off-cut correction.
4. Push the option for correction calculation; the machine will determine the off-cut value.
5. The calculated off-cut value is displayed in the "Band width" box.
6. If you agree to the result displayed, confirm it; and the value will be saved in the machine memory. At the same time, it will appear in the box on the right of the confirmation option.

Band offset correction (Band deviation correction)



Pos.	Function
	Real piece length Enter the real (measured) piece length
	Option for correction calculation After entering the lengths, push to calculate the correction.
	
	Display of the correction calculation results
	Confirmation - confirmation of the correction calculation result displayed
	Saving - saving of the correction calculation result displayed

To perform the band-offset correction:

1. Cut **2 test pieces of the material from one bar**, with the faces at the angles:

0° and -45° (1st piece)

-45° and 0° (2nd piece)

- in conformity with the illustration in the screen for the band offset correction.

2. Measure the real lengths of both pieces – in conformity with the illustration in the screen for the band offset correction.

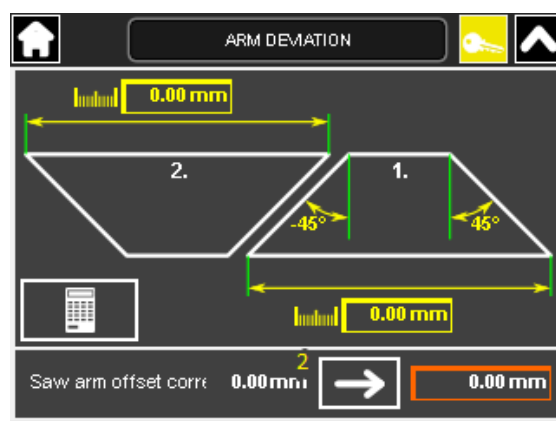
The measured values should be symmetrically distributed around the required value (e.g., if the required value is 100 mm, the resultant measured values should be approx. 95 mm and 105 mm).

If the measured values are not symmetrical, the band deviation correction may have been executed incorrectly; therefore, check and, if necessary, correct the band deviation correction.

If the band deviation correction is correct and the resultant deviations are not symmetrical, consult the manufacturer.

3. If both the resultant deviations are symmetrical, enter both of the lengths measured in the pertinent entry boxes in the screen for off-cut correction.
4. Choose the calculation option; the machine will determine the off-cut value.
5. The calculated off-cut value is displayed in the "Band width" box.
6. If you agree to the result displayed, confirm it; and the value will be saved in the machine memory. At the same time, it will appear in the box on the right of the confirmation option.

Arm axis offset (Arm deviation)



Pos.	Function
	Real piece length Enter the real (measured) piece length
	Option for correction calculation After entering the lengths, push to calculate the correction.
Band width 0.00 mm 	1.60 mm
0.00 mm	Display of the correction calculation results
	Confirmation - confirmation of the correction calculation result displayed
	Saving - saving of the correction calculation result displayed

To perform the arm axis-offset correction:

1. Cut **2 test pieces of the material from one bar**, with the faces at the angles:

+45° and - 45° (1st piece)

-45° and +45° (2nd piece)

- identically to the illustration in the screen for the band offset correction..

2. Measure the real lengths of both pieces – identically to the illustration in the screen for the band offset correction.
3. The measured values should be symmetrically distributed around the required value (e.g., if the required value is 100 mm, the resultant measured values should be approx. 95 mm and 105 mm).
4. If the measured values are not symmetrical, this may have been caused by inaccurate material dimensions. Cut and evaluate material samples with accurate dimensions.

If the material dimensions are accurate, the band deviation correction may have been executed incorrectly; therefore, check and, if necessary, correct the band deviation correction.

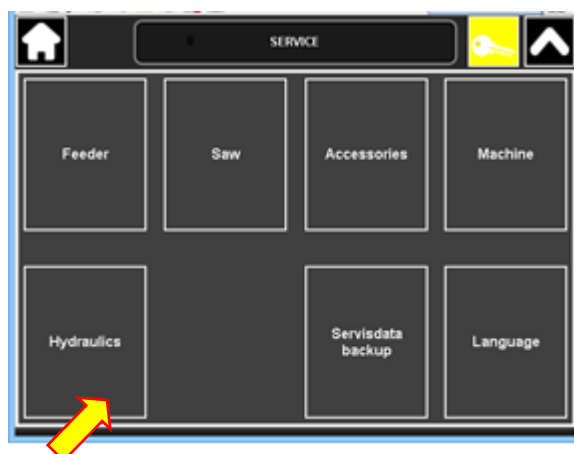
If the material dimensions and band offset corrections are all right, but the resultant deviations are not symmetrical, consult the manufacturer.

5. If both the resultant deviations are symmetrical, enter both of the lengths measured in the pertinent entry boxes in the screen for off-cut correction.
6. Choose the calculation option; the machine will determine the off-cut value.
7. The calculated off-cut value is displayed in the “Band width” box.

If you agree to the result displayed, confirm it; and the value will be saved in the machine memory. At the same time, it will appear in the box on the right of the confirmation option.

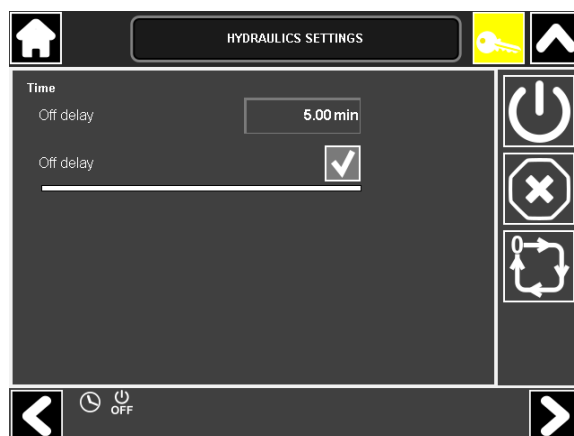
3.10.6. Setting the hydraulic service parameters

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

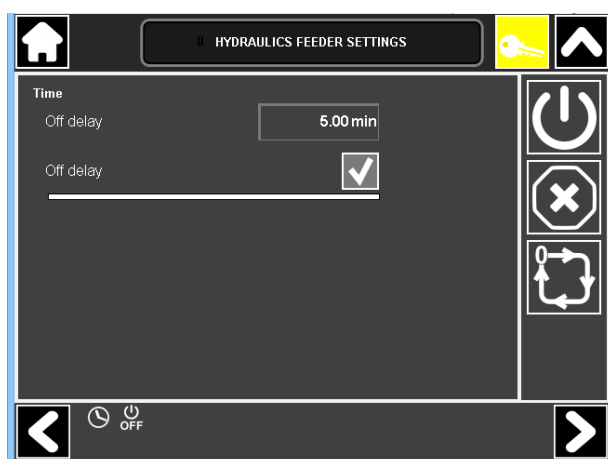


2. The screens appears for setting of hydraulic parameters. (hierarchical level 2)

Screen No. 1

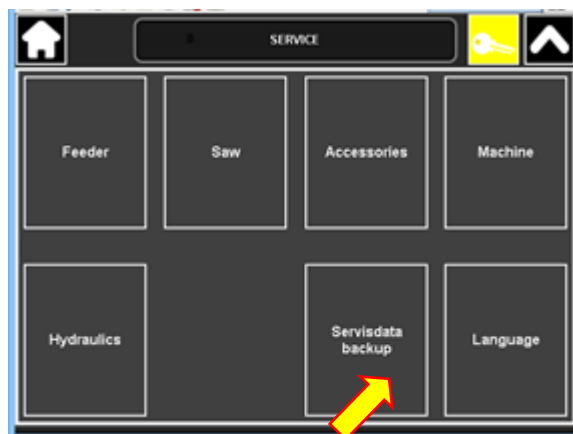


Screen No. 2



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 switched 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.

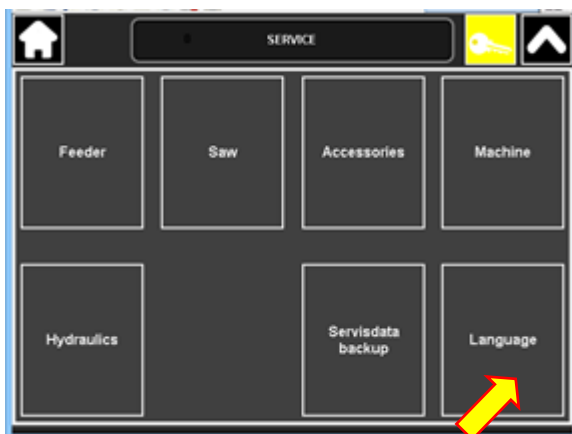
3.10.7. Saving of service settings



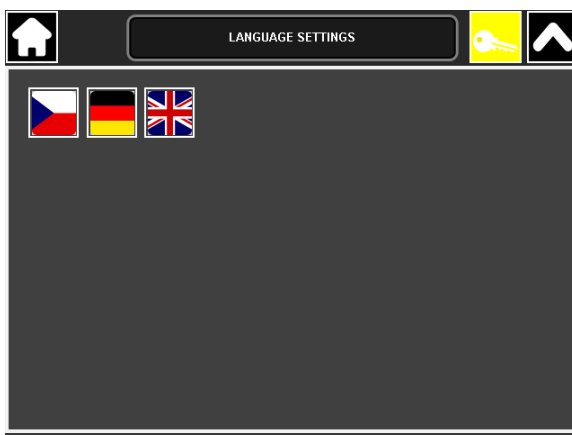
Pos.	Function
	Save service parameters (hierarchical level 2)
	Load service parameters (hierarchical level 2)
	Load factory parameters

3.10.8. Language selection

1. On the screen for selection of setting units, choose the "Language" option



2. In the "Language" service parameter, you can set language mutations for control of the device.



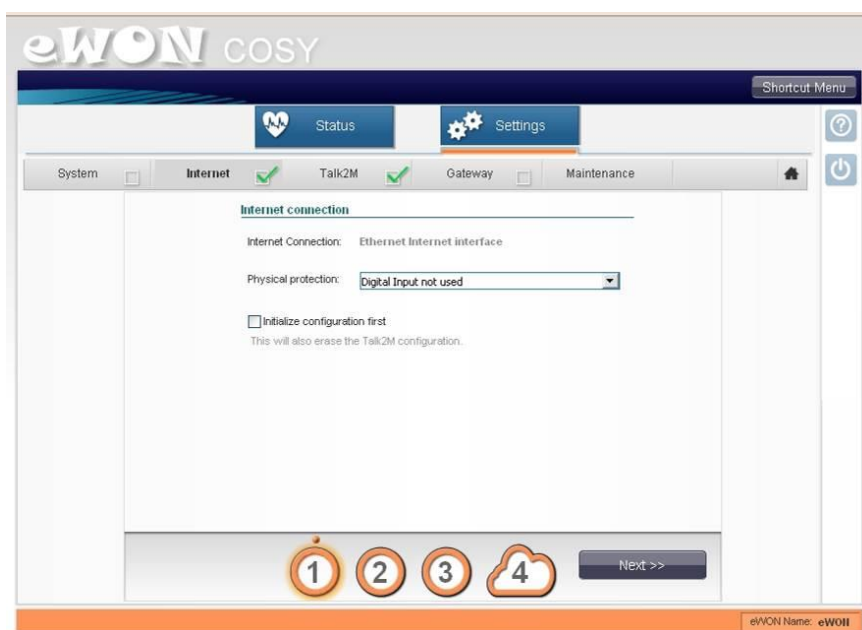
3.11. Remote control (optional accessory)

3.11.1. Requests for connection

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**.

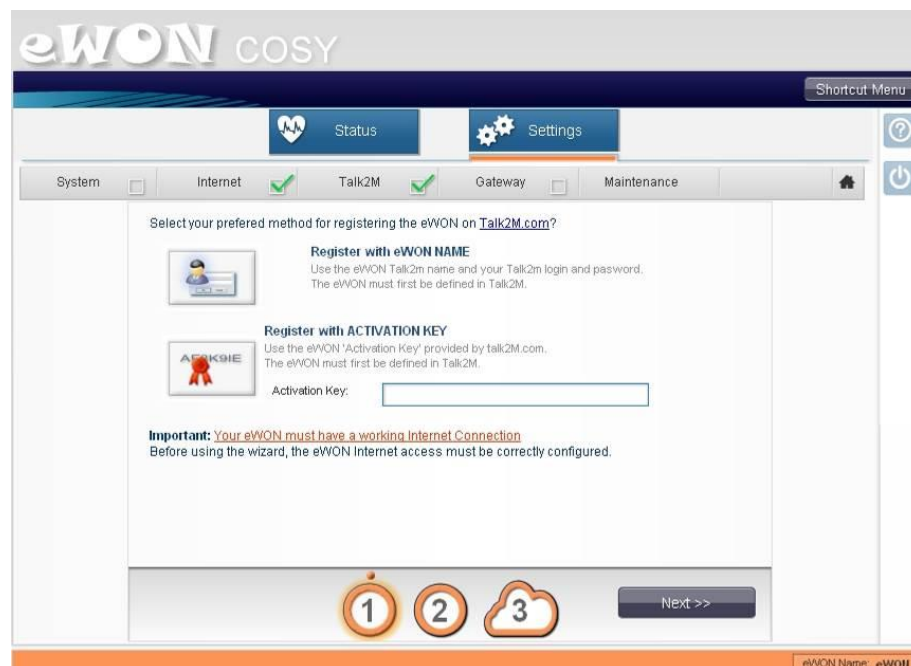


6. Click Next button and configure your WAN IP address according your internet provider.



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

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



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

3.12. Set off the sleep mode of the display

The sleep mode can be set on the display. That means - if no touch is made on the display for a longer time, then after the time which was preset as a waiting period for switching of the touch screen into sleep mode, the display will be automatically switched to Sleep Mode - thus the preset background will be displayed on the touch screen.

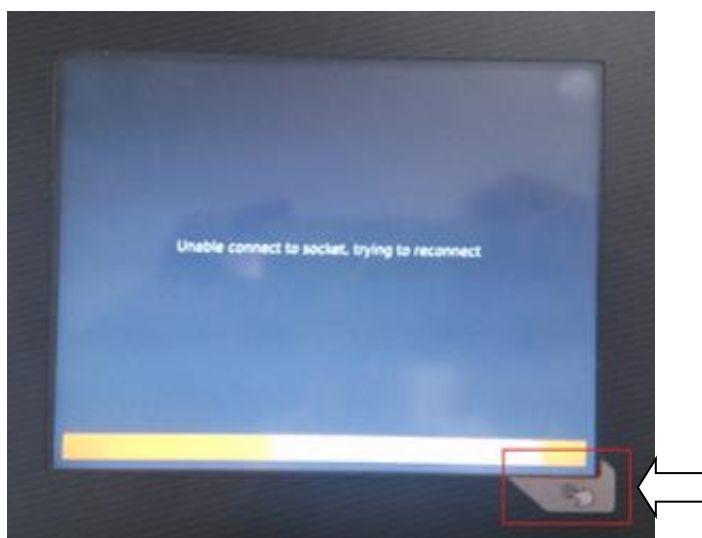
The display that was switched to the sleep mode can then be revived by a touch.

These parameters were adjusted for the sleep mode of the display by the producer:

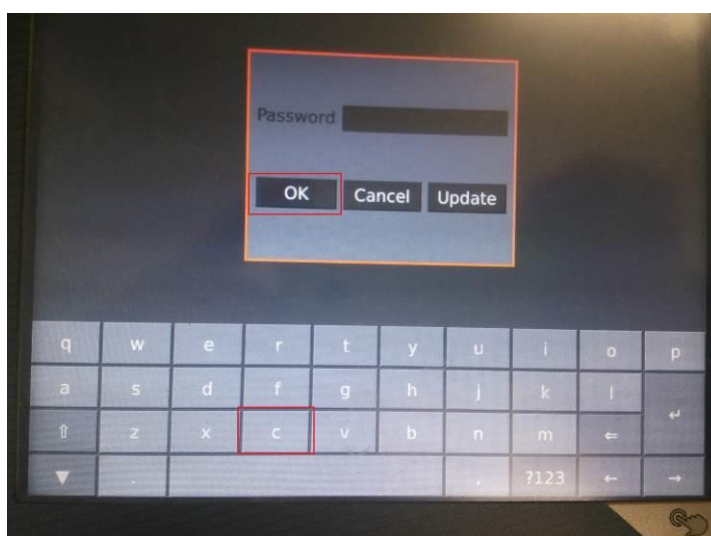
- Sleep Mode - active
- the time period for waiting before switching the display to the sleep mode – 30 min.
- standard image for the sleep mode is a black background

If you want to change the parameters which were preset by the producer follow these instruction:

1. Press the the button for the display setting and keep it pushed for a few seconds

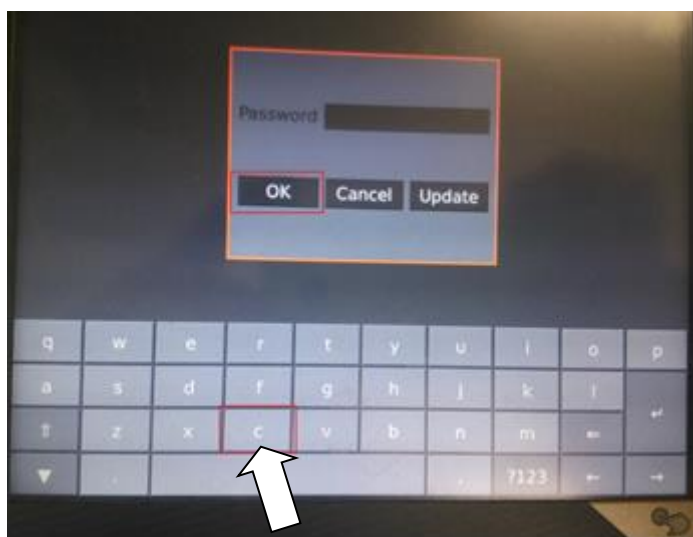


2. The keyboard and the appeal for the password insertion appear.

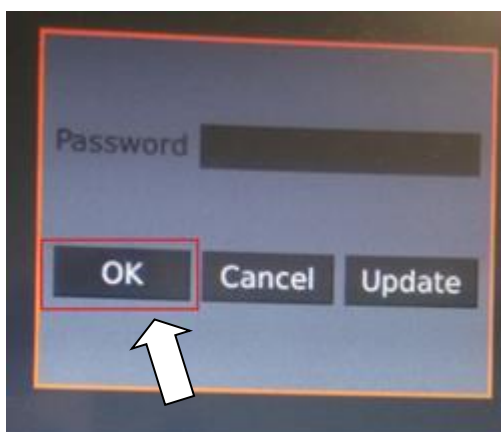


3. Insert the password - into the field for the password insertion

The password is: **c**



4. Confirm the inserted password with the selection OK.



5. The screen with the menu for control of the display appears. Choose the selection „Screen” on this screen and the menu with offers for display setting appears.



6. It is possible to change the time period for waiting for display sleep mode in the field

„Screensaver“. The period can be changed using symbols



The set time is displayed next to the symbols



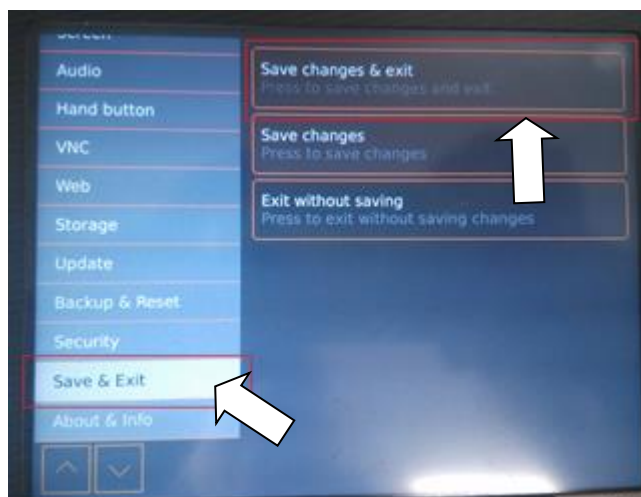
and it can be changed in the range of 0-60min.



7. After the time period is set, check if the selection for switching of the display to the sleep mode is checked.



8. To save the selections for switching of the display to the sleep mode choose the selection „Save & Exit“ and then choose „Save changes & Exit“ in the next displayed menu.

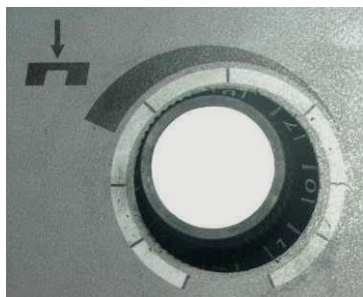


The adjusted selections will be saved and the display will be switched to the sleep mode.

3.13. Machine setting

3.13.1. Setting of the frame lowering speed

Frame lowering speed is set by valve on the control panel.



- Turn clockwise to decrease frame lowering speed.
- Turn counterclockwise to increase frame lowering speed.

Note:

If the throttle valve is closed too tightly, the valve seat may be damaged and may start to leak. Tighten the valve lightly.

3.13.2. Setting of the cutting speed

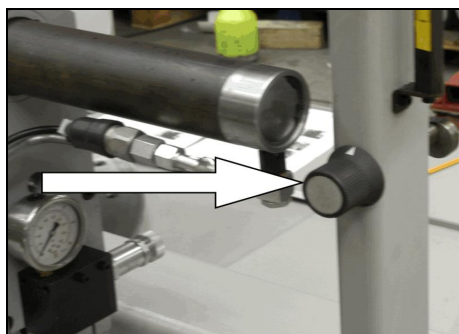


The speed of the saw band can be gradually adjusted from 20 to 120 m.min⁻¹. Set the speed as follows:

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

3.13.3. 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.

3.13.4. Setting of optimum distance of the guiding cubes

In order to maintain stable cut and sufficient precision, it is necessary to place the left guiding cube as close to the cut material as possible.

1. Switch off the hydraulics.
2. Release guiding listel lever.

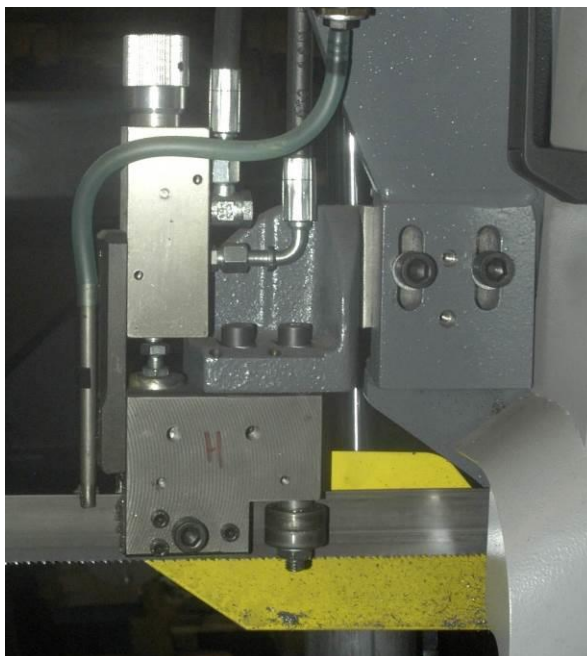


3. Move left part of the guiding so the edge of the left guiding cube is as close to the cut material as possible.
4. Tighten the levers and check position of the guiding cube.

During adjustment pay increased attention to prevent collision of the device for setting of the arm lifting (fast feed brake) with the cube at cutting!

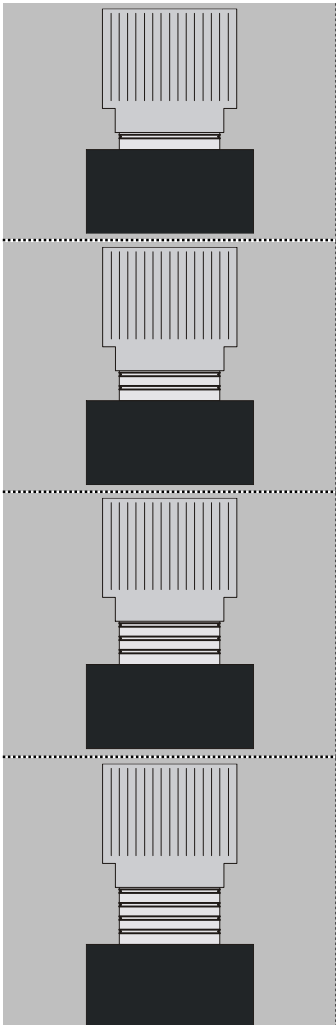
3.13.5. Pressure adjusting to the cut

The band saw ergonomic 320.250 DGH is equipped with cutting pressure regulation on the right guiding cube.



Pressure setting is performed with regulation wheel on the guiding cube..

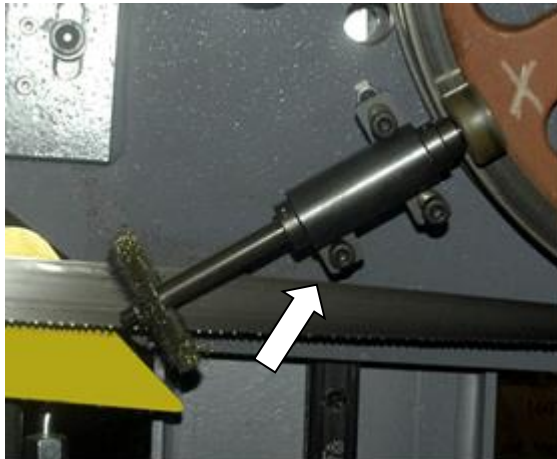
Downfeed	Description
<i>downfeed pressure is bigger</i>	Screw on the wheel
<i>downfeed pressure is smaller</i>	Screw off the wheel

	One visible neck Solid material over Ø200 mm.
	Two visible necks Solid material to Ø80 - Ø200 mm.
	Three visible necks Pipes and shaped material with surface from 10 - 15 mm. I - shaped material from 200 - 280 mm. Solid material to Ø80 mm.
	Four visible necks Pipes and shapes material with surface to 10 mm. I - shaped material to 200 mm .

3.13.6. Brush setting

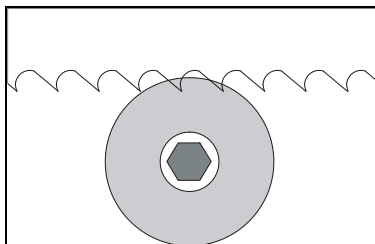
The brush for chip removal from the saw band influences cutting durability, saw band lifetime and wheels lifetime, hard metal guides and finally the cut accuracy. **Brush adjustment must be checked every shift.**

1. Open the cover of the band arm



2. Adjust the position of brush to the saw band by turning the adjusting screw(see arrow) of the brush.

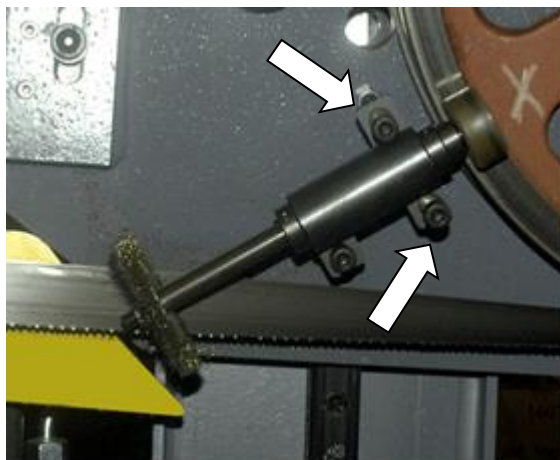
The brush must touch with teeth of the saw band.



Attention!

The brush **must not** touch the bottom of the saw teeth!

3. In case, that the brush is not turned right (driving wheel of the brush slips on the driving wheel of the saw band), push by means of the screws (see arrows) driving wheel of the brush to the driving wheel of the saw band.



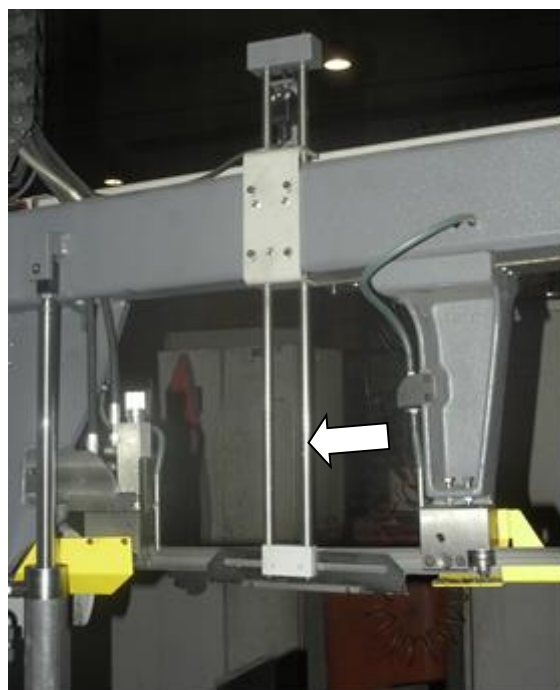
Attention!

The screw must not be tightened with heavy force, because driving wheel of the brush can be damaged or the lifetime of the bearings of the driving wheel of the band can be lowered!

Mount the brush cover back to its place / close saw arm cover

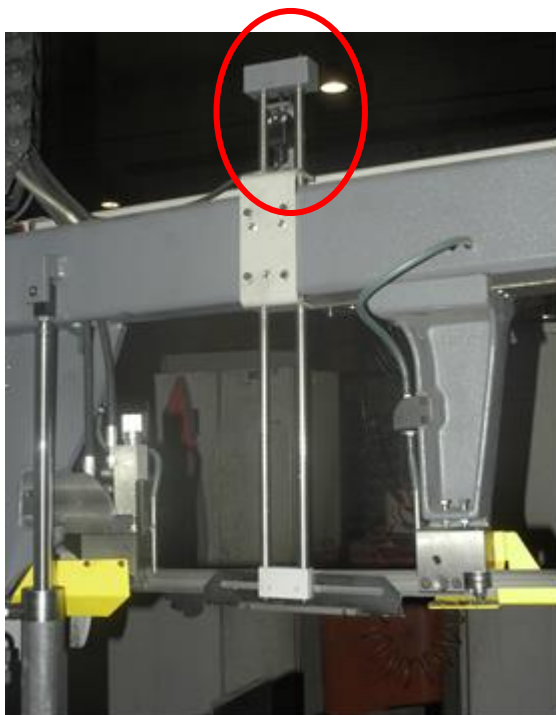
3.13.7. Device detecting the arm position above the material

The device is installed on the machine to detect the arm position above the material.



The device is used to adjust the arm lifting:

1. Before the first cut, lift the arm to the uppermost position.
2. Insert a material into the vice
3. If the arm is lowered to cut from a sufficient height above the material, the fast feed can be enabled automatically or manually.
4. If the device arm gets into contact with the material, the limit switch is activated and the arm movement slows down automatically to the preset speed of the arm feed to cut..



5. Then, in the automatic cycle, the arm is lifted only to the height above the material until the limit switch is reactivated.

The device is also used to control the arm lowering to cut:

1. After starting the cut, the arm moves with fast feed.
2. If the device arm touches the material, the speed is switched from fast feed to the preset speed of the arm lowering to cut..

The device has been adjusted by the manufacturer, do not interfere with the adjustment!

Regularly check the free running of equipment and keep sliding surfaces of guiding rods clean and lubricated!

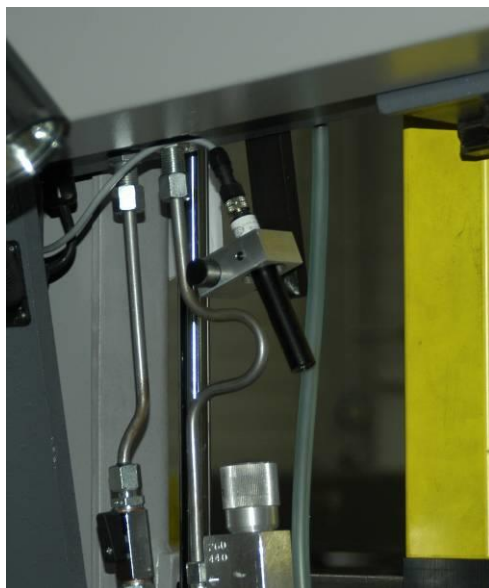
In the event that the arm does not fall into the cut, check the status of the device, especially if it is not released limit switch or bent guide rod.

In case of a fault, contact the manufacturer!

3.13.8. 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..



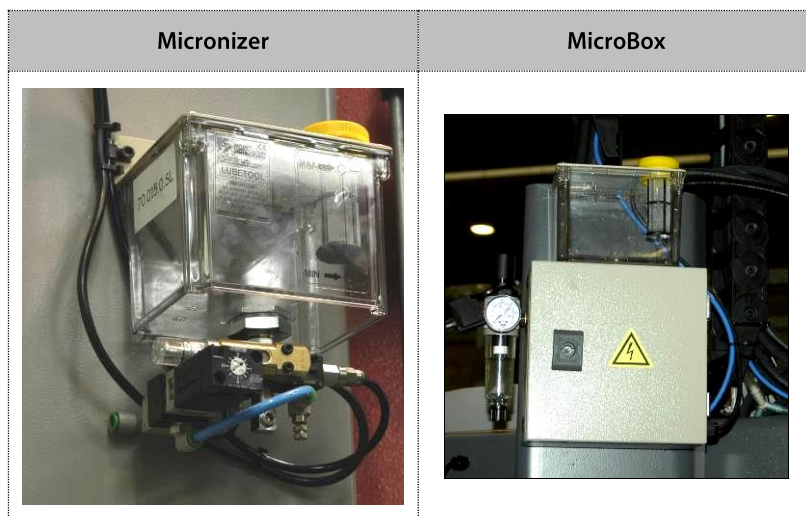
The switch for Laserliner is located on the control panel..

3.13.9. Mikroniser and MicroBox) – mist lubrication

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

Next photos are for illustrative purposes only.

Microniser and MicroBOX are devices used to create a lubricating oil mist in precise doses of oil and air mixture, which is then applied directly to the saw band.



The device serves for ideal cooling and lubrication of the cutting blade when closed profiles are cut, and helps to maximize ease of cut.

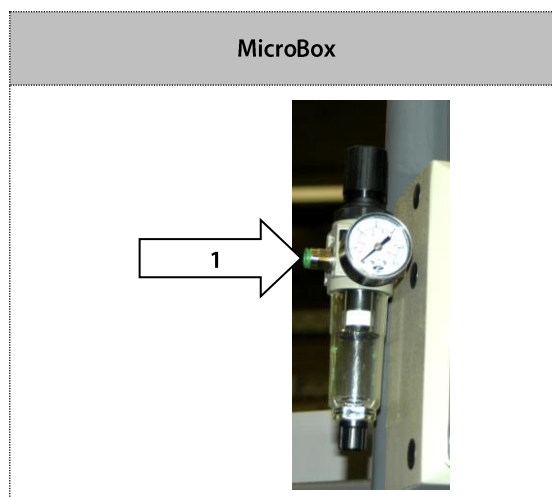
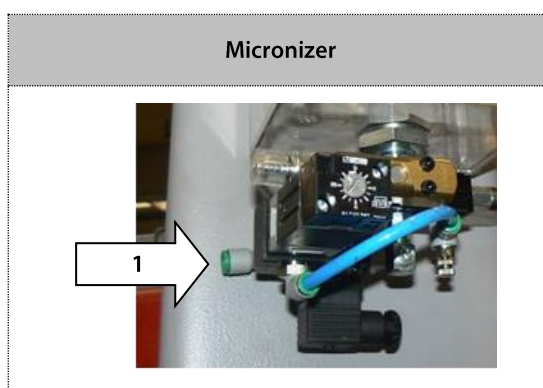


There is no leakage of coolant outside the work area of the saw when a profile material is cut.

The device is suitable for all Bomar saws.

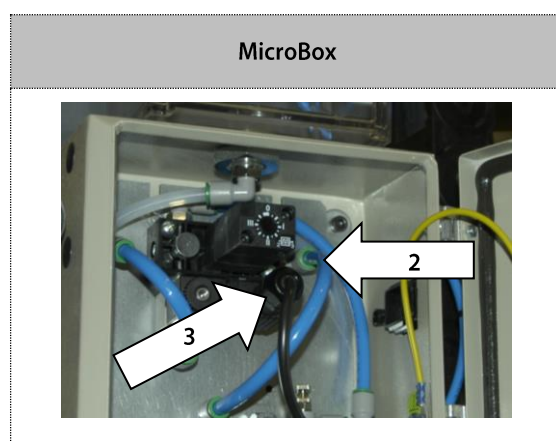
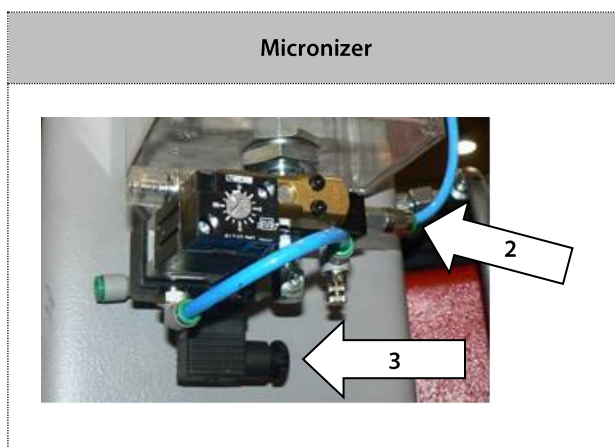
.Microniser/ Microbox setting:

1. For proper function of the Microniser pressured air (in the range of 0.5 to 0.5 MPa (5-6 bar)) must supplied from the pneumatic system (dry, clean, free of particles) see - arrow **1**

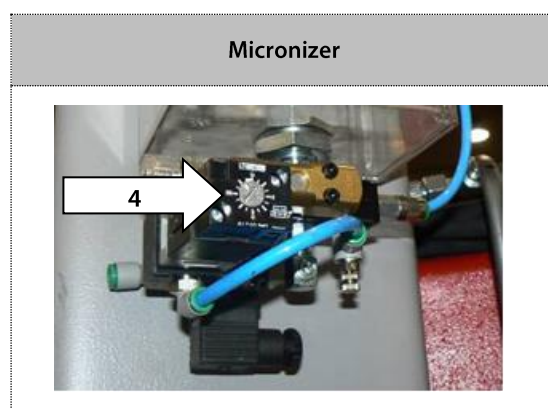


2. Arrow **2** - shows the output of the cooling medium (air + oil).

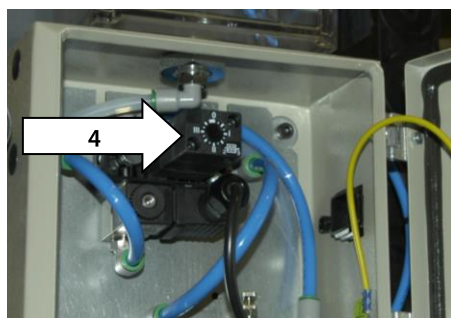
Arrow **3** - shows the inlet for the power supply cable.



3. Set the interval of cutting oil dispersion on the Microniser- **arrow 4** (3-20 pulses / min.).
Adjust this interval to the parameters of the saw band and cut material.

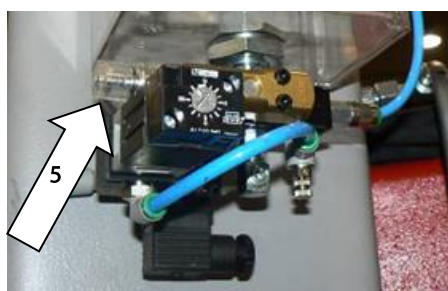


MicroBox

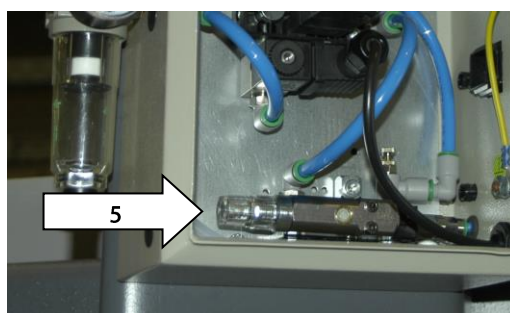


4. Adjust the amount of oil with a regulator - arrow 5

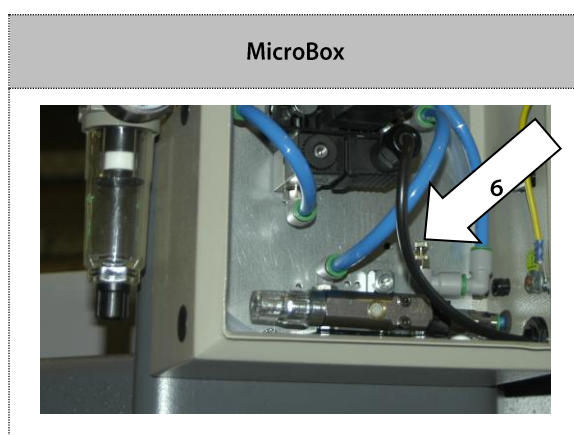
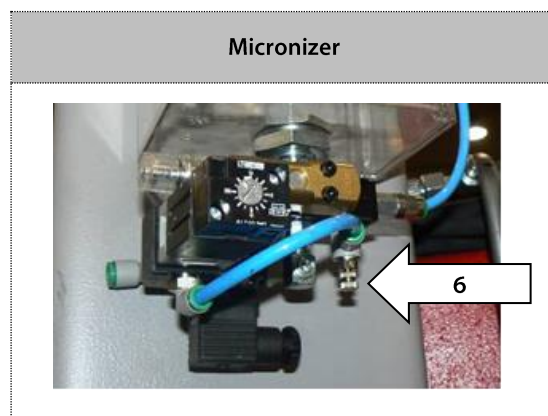
Micronizer



MicroBox



5. Setting the air quantity using another regulator - arrow 6



6. Switching on / off of the Microniser is depends on the control system of the machine it is installed on. See chapter "Machine control".

Recommended cutting oils for Micronisation:

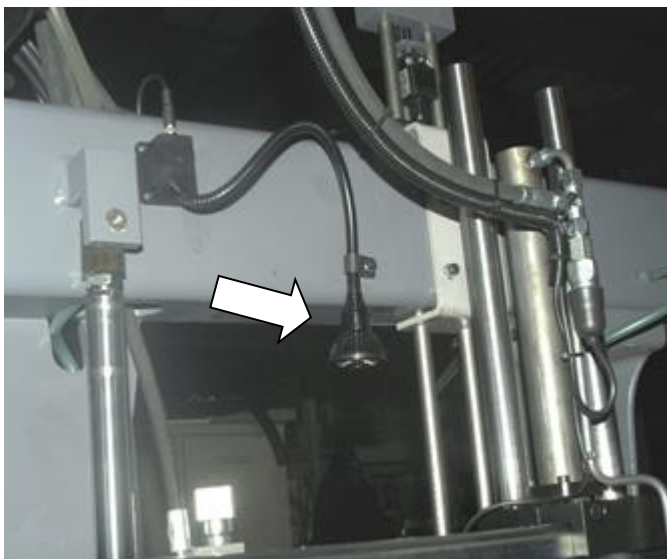
Manufacturer	Cutting oil
Biona	Blocut
Paramo	Paramo cut 22

Featured are cutting oils with viscosity class 22.I

Adding of the coolant is possible after removing the filling cap. After the filing is finished the cap must be screwed in again.

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

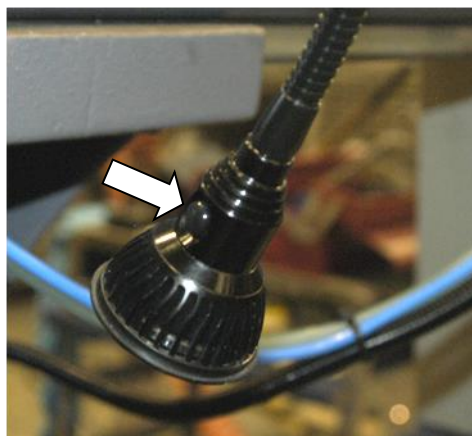
3.13.10. Halogen lighting of working area (optional accessory)



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

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



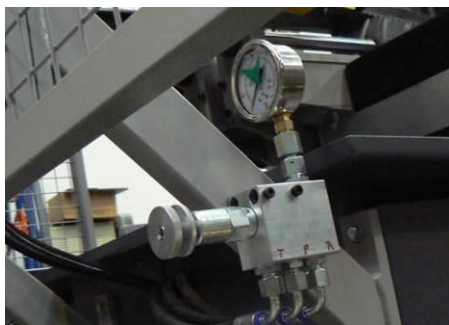
Design lighting unit meets IP54 - Protection against water jets.

Technical data halogen light :

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

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

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

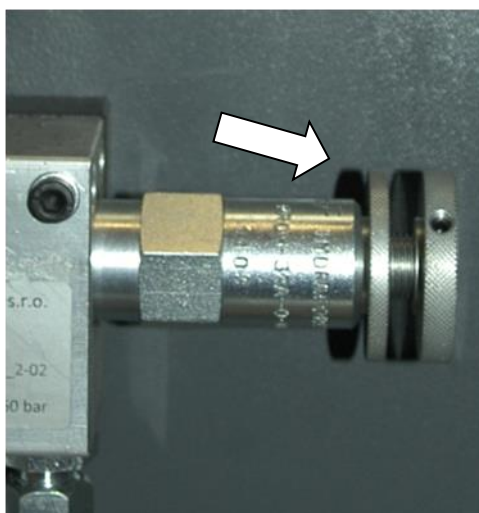


Warning !

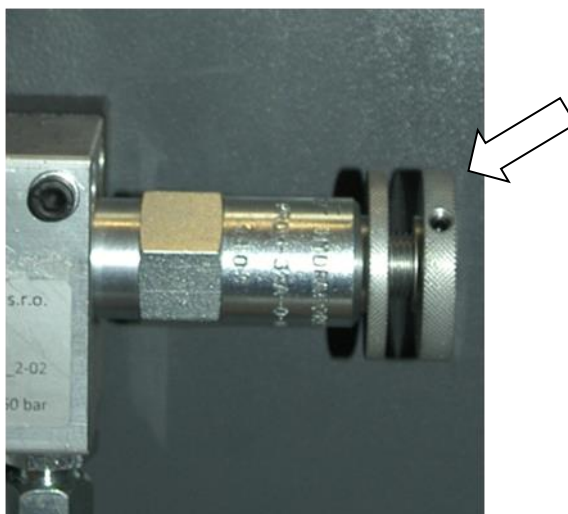
Because the hydraulic pressure equipment pressure 2,2 – 4 MPa, loosen the screws with caution!

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.

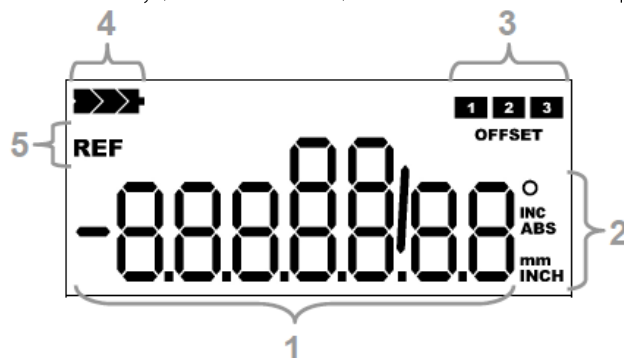
Attention:

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

3.13.12. Electronic measuring device (optional accessories)

Zero position setting

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 "oa" 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

3.13.12.1. Speed adjustment of the arm lowering (optional accessory)

The current speed of vertical movement of the arm is displayed on a digital display which is mounted on the saw arm.

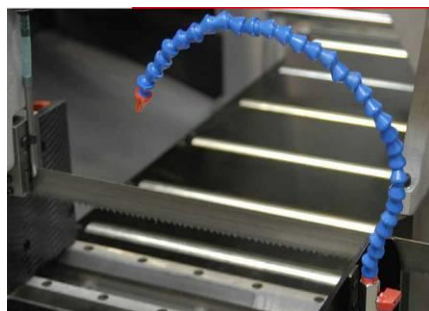


The measuring unit is set by the manufacture.

3.13.13. 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 coolant 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.



3.13.14. 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:.

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

3.14. 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!

3.14.1. Handling agent selection

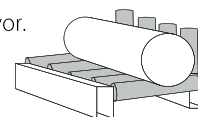
- Use the strong handling agents to lift and transfer the material!
- Handle with the material only with the lift truck or use the suspension strands and the crane!
- Do not use the lift truck or crane in case that you do not have the license to handle with it!

3.14.2. 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.

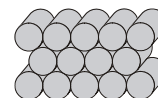
Be especially careful with round materials that it always stays on two vertical rollers and that it cannot fall off the conveyor!



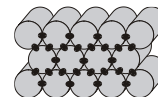
3.14.3. Bundle material cutting

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.

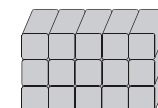


Always weld the material at the rear end of the bundle to secure it from moving.



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

Square material bundle:



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.

3.14.4. Hydraulic fixture bundles (Top clamping - auxiliary vice) – optional accessories

To better maintain the workpiece in the vise we recommend using of **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.



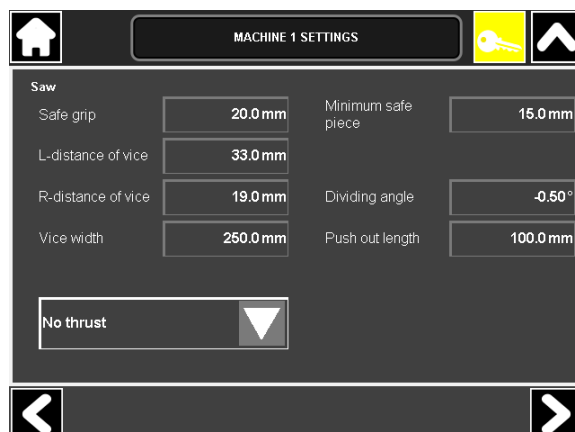
In manual mode it is possible to control the top clamping manually – by means of buttons at control panel.

In automatic cycle the jaws are controlled automatically.

The process of clamping of horizontal and vertical vices is in accordance with preset which was made in service parameters:



- Screen no.1



Pos.	Function
Pull-down menu (hierarchical 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.	

4. Machine maintenance

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.

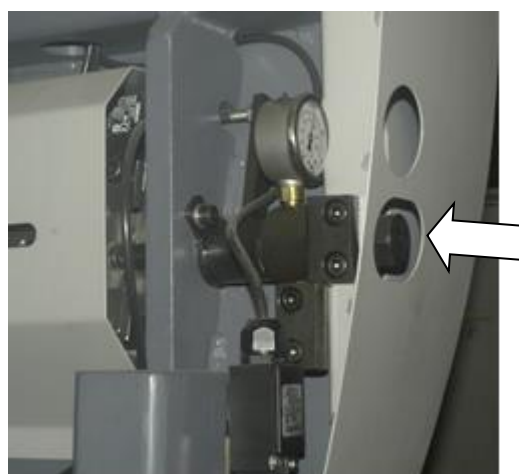


3. Open all three covers on the saw arm.





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 – hydraulical 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

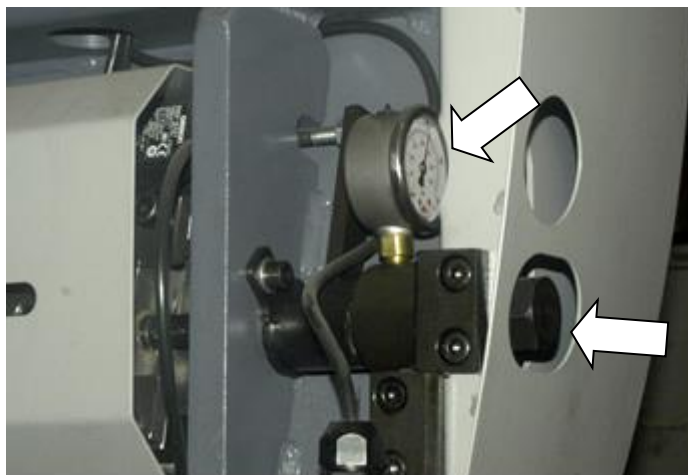
If the machine is equipped with a hydraulic tensioning belt, stretch belt with buttons.
5. Install yellow protective cover of the band.
6. Move the brush to the saw band. Tighten the securing screw.
7. Close the covers of both driving wheels.
8. When machine is equipped with Hydraulic belt tension Turn ON the safety circuit. Also switch 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.

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.

If the saw band is tightened correctly, the pressure gauge pointer is on the green arrow in the scale.



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.



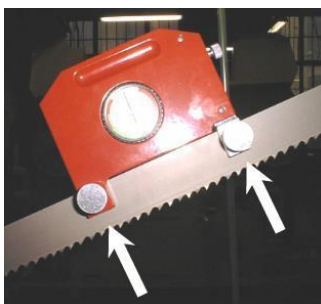
4.2.3. Tenzomat (optional accessory)

Tenzomat is used for checking saw band tension.

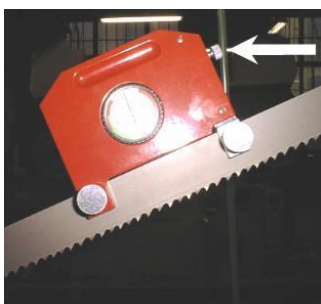
Principle of Tenzomat is founded on measuring extension saw band for tension

Instruction for using:

1. Put the saw band put onto the wheels of saw and slightly stretch it.
2. Release tightening screws of Tenzomat. Put Tenzomat onto saw band, saw band must run clips. Take care that saw band does not sit onto a bottom cut in the clips. Between saw band and bottom of clips must be gap 1–3 mm. Tighten tightening screws of Tenzomat.



3. Turning with adjusting screw onto moving vice of Tenzomat, adjust indicator. Pointer indicator must point onto zero. The saw band stretch by means of stretching equipment of saw and indicator point value, which is in extent advised values.



4. Release tightening screws of Tenzomat. Get down Tenzomat from the saw band.

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

4.3. Adjusting of the saw band run

Regularly inspect the saw band running on the guide wheels and in the guide cubes.

In particular, when changing of the saw band, it is important to adjust the saw blade correctly.

4.3.1. Saw band inspection

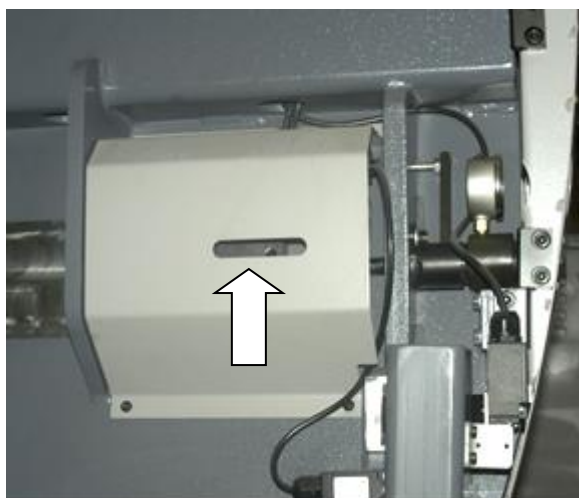
If the saw band does not run correctly, these problems can occur:

- The saw band can fall down from the guide wheels – the saw band and the protective cover can be damaged
- The saw band runs on the side ring of the wheel – the saw band and the wheel side ring can be damaged



1. Check, if the saw band is right in the guiding cubes..
2. Switch on the saw band drive and then after 10 seconds switch off saw band drive. If the saw band drive is not possible to switch on, set the limit switch of the saw band stretching.
3. Switch off the main switch.
4. 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.
5. 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**.

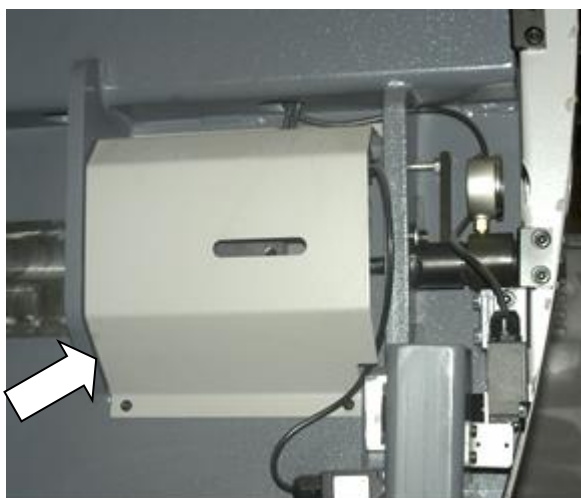
- Turn with the screw to the right, the saw band is closer to the stretching wheel rim.
- Turn with the screw to the left, the saw band is far from the stretching wheel rim

Check saw band run adjustment again.

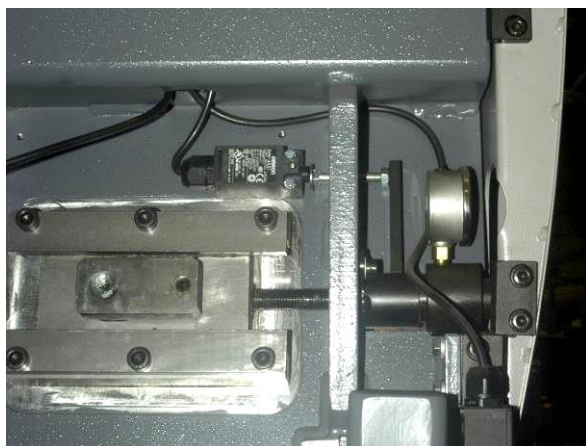
4.4. Adjusting of the limit switch of the saw band stretching

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. The machine can be damaged.

1. Dismantle the protective cover.

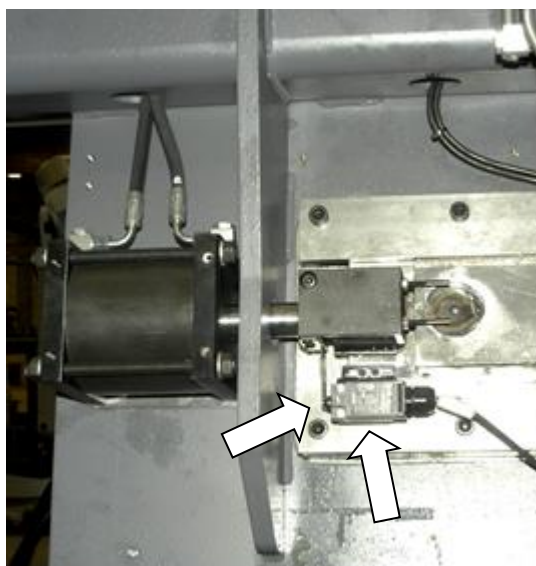


Mechanical saw band stretching



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. Mantle the protective cover back.

Hydraulic saw band stretching



2. Switch on the hydraulic unit. When the hydraulic unit is switched on, there is a short period for automatic tightening of the saw band.

Try to run the saw band drive two times during this period:

- **at first immediately after hydraulic unit switching on**

If the limit switch is set correctly then when the saw band drive is switched immediately after hydraulic unit switching on - **low value of the saw band tension causes that the limit switch is not in contact with its counterpart and it is not possible to switch on the saw band drive** (– so it couldn't be possible to switch the saw band drive until the saw band isn't tensioned properly)

- **next after a about 30 seconds**

If the limit switch is set correctly then when the saw band is switched after the period which is necessary for automatic saw band tightening - **the proper saw band tension causes that the limit switch is in contact with its counterpart and it is possible to switch on the saw band drive**

CAUTION!

In the event that the limit switch is not responding properly during the tests, first check:

- whether the machine is in the state DEBLOCK (if the machine is equipped with this mode)
- whether the saw band isn't damaged

Eventually check the condition of the limit switch, the condition of the saw hydraulic unit and whether the saw band is tensioned properly - eg. using TENZOMAT

According to recognized findings:

- repeat tensioning of the saw band when the machine is in DEBLOCK
- replace the saw band
- or contact an authorized service

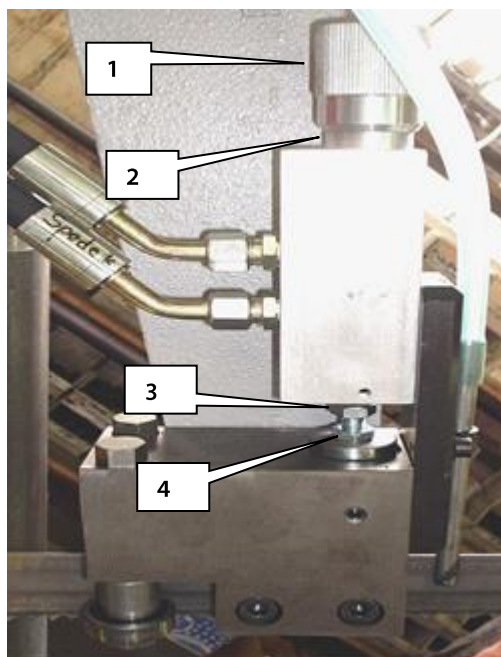
4.5. Adjusting of the device for control of thrust to cut

The device is factory set.

Correct setting of the device effects cutting quality, smooth run of the machine and life of the saw band.

Caution! Do not interfere in the settings of this device without a serious reason and if not trained properly!

1. Run the arm to the upper position
2. Loosen the locking nut /Pos.4/ on the screw
3. Set two visible recesses /Pos. 2/ with the adjusting knob /Pos.1/ on the adjustment cube
4. Slightly loosen the stop screw /Pos.3/ as far as the adjustment cube stop so that the adjustment cube needle, and thus also the entire valve, is closed apparently.
5. Turn the key on the control panel to the "manual" position "
6. Open the throttle valve of the arm as much as possible or by a single turn – according to the machine type
7. Push the "arm downward" button. The arm must stop /the stop valve is still out/
8. Start to loosen the screw /Pos.3/ slowly until you achieve the optimum speed; see Table No..1
9. After achieving this speed, lock the screw again with the locking nut /Pos.4/
10. Having finished the adjustment settings, test the arm downward speed with the saw band running



If the arm descent speed corresponds to the table values, the settings are finished.

BELT [mm]	SPEED [m/min]
27	0.3

Otherwise repeat the entire procedure.

4.6. 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

4.6.1. 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

4.6.2. 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.

4.7. Hydraulic, Greases and oils

4.7.1. 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.

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

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!

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

Band saw	Gearbox oil	Capacity
Individual 520.360 DGANC	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

4.7.2. Lubricant greases

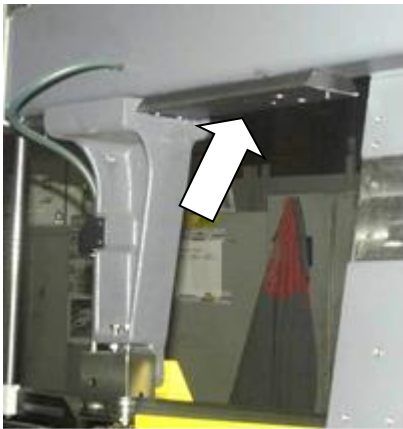
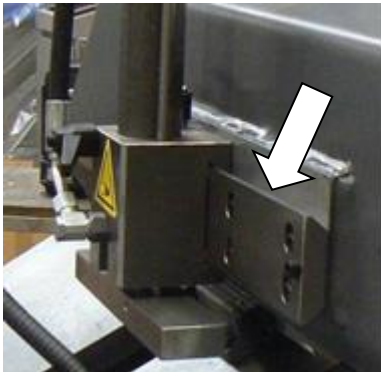
We recommend using lithium based saponified grease, class NGLI-2 for lubrication. Different greases are mixable, if their oil bases and consistence type are identical.

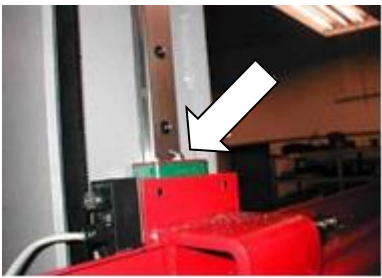
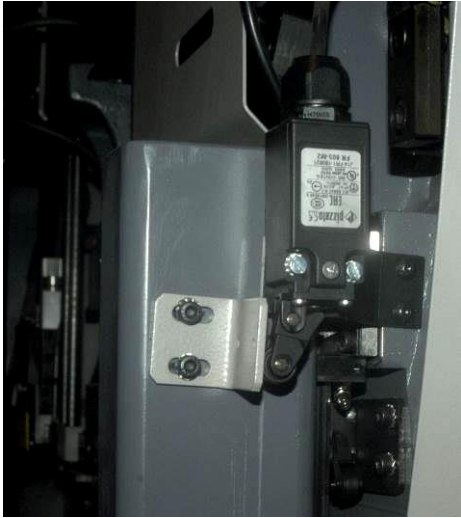
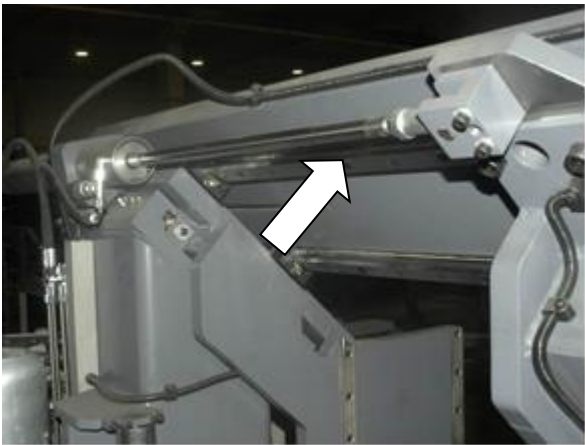
Comparative table of the lubricant greases:

Manufacturer	Type of the lubricant grease
BP	Energrease LS - EP
DEA	Paragon EP1
Esso	FETT EGL 3144
	Beacon EP 1
	Beacon EP 2
FINA	FINA LICAL M12
Klüber	Microlube GB0
	Staburags NBU8EP
	Isoflex Spezial
Optimol	Optimol Longtime PD 0, PD1, PD2
Shell Aseol AG	ASEOL Litea EP 806-077
Texaco	Multifak EP1

4.7.3. Lubrication

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

Points for lubrication	Lubrication
	The guiding cubes leading Grease with oil from both sides once a week.
	Feeder top camming leading Grease with oil from both sides once a three months.

Points for lubrication	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 for feeder jaws 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.

Points for lubrication



Lubrication

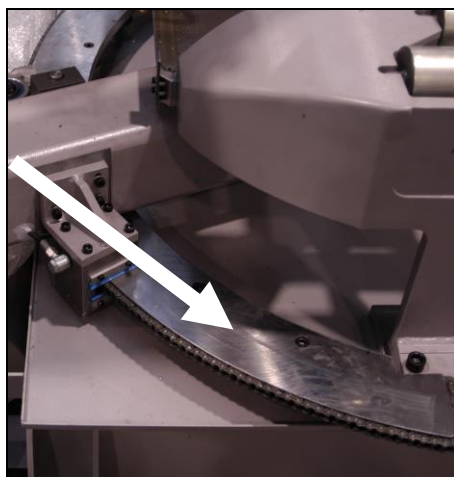
Linear guiding for feeder movement

Lubricate with grease once a three months (see chapter Lubricant greases). Use 3–5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3–5 times whole line of the linear guiding during lubrication.



Main vice leading

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.



Do not grease! Hydraulic brake will be ineffective.

4.7.4. Hydraulic oils

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

Use oils with specification DIN 51524-HLP, ISO 6743-4 and viscosity grade ISO VG 36 in hydraulic aggregates. Hydraulic oils quantity – see chapter **Hydraulic oil level check**.

Note:

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

Comparative table of the hydraulic oils

Manufacturer	Type	Manufacturer	Type
Agip	Oso 32	Ina	Hidraol 32 HD
Aral	Vitam GF 32	Klüber	Lamora HLP 32
Avia	Avilub RSL 32	Ungarn	Hidrokomol P 32
Benzina	OH-HM 32	Mobil	Mobil DTE 25
BP	Energol HLP 32	ÖMV	HLP 32
Bulgarien	MX-MV32	Polen	Hydrol 30
Castrol	Hyspin AWS 32	Rumänien	H 32 EP
Čepro	Mogul HM 32	Russland	IGP 30
DEA	Astron HLP 32	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		

4.7.5. Hydraulic unit service

After 50 hours working time, or the latest 3 month after the first run, the first service should be carried out. This includes:

- checking off all screws and connections, fixing points, tubes and hoses for leakage
- Check hydraulic oil level
- During time of duty the oil temperature shouldn't exceed 60-70°C
- check function of signaling components (thermometer, level gauge, dirty filter indicator)
- Check the adjustment of working pressure

To realise a high reliability of the power pack, the manufacturer lays down following inspection intervals

Interval	daily	weekly	monthly	three monthly	six monthly	annually
Hydraulic fluid						
Level	-	•	-	-	-	-
Temperature	-	•	-	-	-	-
Condition	-	-	•	-	-	-
Change interval	-	-	-	-	-	•
Filter						
Change interval	-	-	-	-	-	-
Other checks						
External Leakages	•	-	-	-	-	-
Contamination	•	-	-	-	-	-
Damages	•	•	-	-	-	-
Noise-(level)	•	-	-	-	-	-
Gauges	-	-	•	-	-	-

4.7.6. Check the oil in the hydraulic system:

- Saw



- Feeder



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.

4.7.7. Manometers

Pressure in saw hydraulic unit



Pressure in main vice – manometer is placed on main vice (optional accessory)

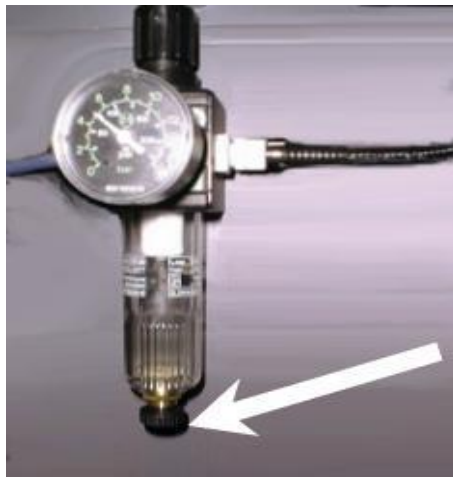


Saw blade tensioning mechanical – placed on saw arm. (optional accessory)



4.8. 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!!

4.9. Machine cleaning

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

- Clamping jaws guiding of the vice.
- The guiding of the feeder.
- Loading surface of the vice.
- Vice guiding
- Brush

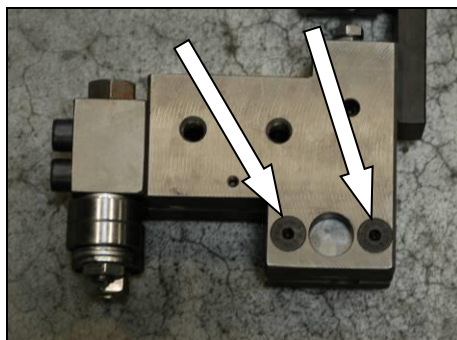
4.10. Worn pieces replacement

4.10.1. Pushing bearing replacement

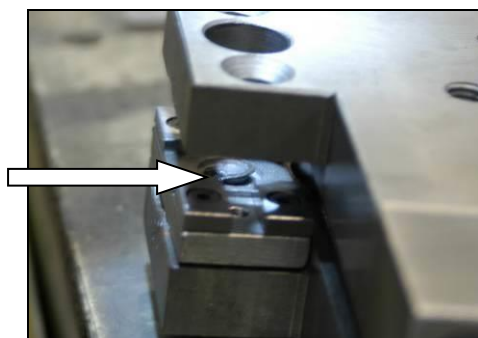
If it is impossible to adjust the bundle gripping assembly and the pushing bearing is worn, it needs to be replaced



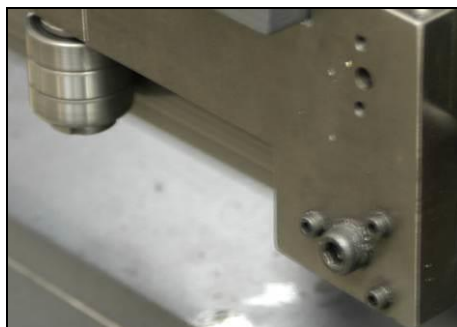
1. Dismantle the saw band.
2. Disconnect the hose from the cooling agent eventually unmount microniser.
3. Unmount guiding cube from holder on saw.



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



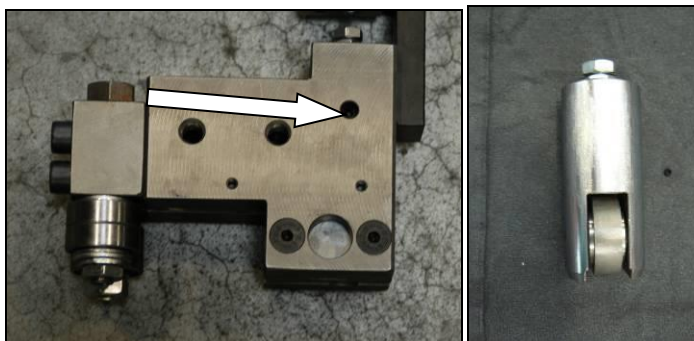
6. Remove retaining ring. Then unmount adjusting screw.



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!

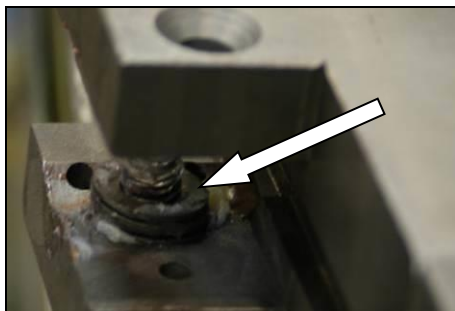
The vice has aluminium jaws, eventually, there has to be an aluminium agent to protect the pivot from damage.

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

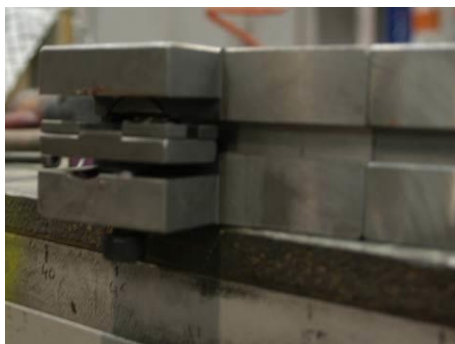


12. Remove the worn bearing and other damaged parts.
13. Fasten the holder to the vice.

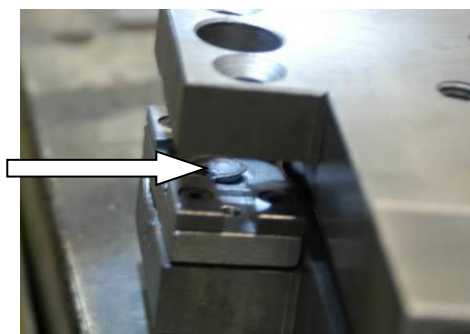
14. Insert the bearing and washers and return the pivot to its original place.
15. Place the assembled piston guide cube. Piston must move freely in a guiding cube.
16. Worm screw defines the operation of the piston (piston has a slot in which is the worm). Tighten the worm, but with a minimum clearance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



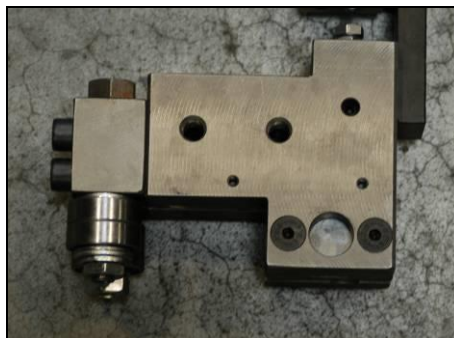
17. Insert the disc springs. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the harmetal carbide.



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.



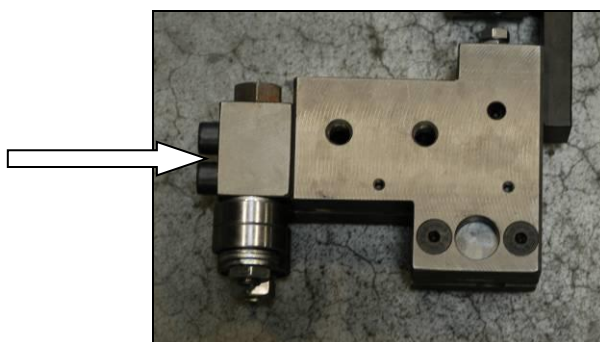
23. Using a short piece of the blade used on the machine, adjust the width of the gap between the guides. Loosen the central screw. Set the gap by central adjusting screw. Belt guides must walk freely without large and will also not scrub.

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

Attention!

Do not replace the eccentrics placing in the cube.



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

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

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

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.

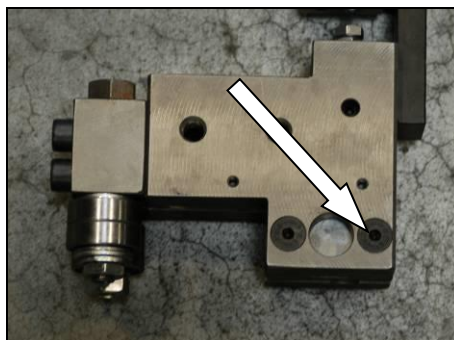
4.10.3. Hard metal guides replacement

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

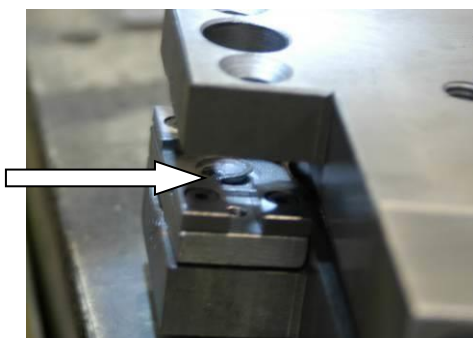
ATTENTION!

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

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. .

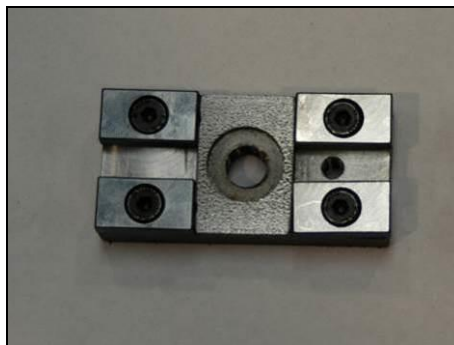


8. Carefully remove the hardmetal. **Pozor, nesmí dojít ke ztrátě talířových pružin.**



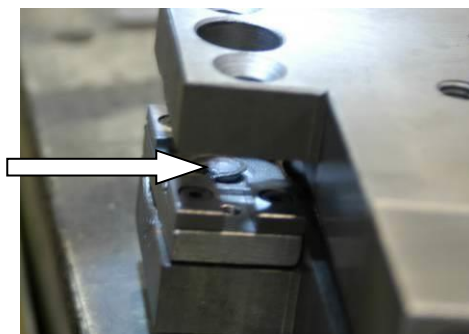
9. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the harmetal carbide.



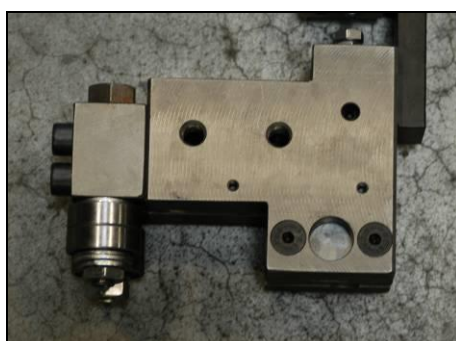


10. Insert the new hard metal guide. **Attention, Do not lose disc springs.** Ensure proper position of carbide guides – holes for 3 stop screws must be in the same position as the holes in a guiding cube.

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.

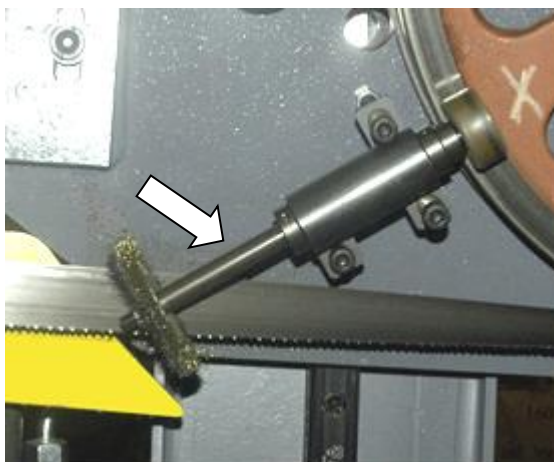


15. Using a short piece of the blade used on the machine, adjust the width of the gap between the guides. Loosen the central screw. Set the gap by central adjusting screw. Belt guides must walk freely without large and will also not scrub

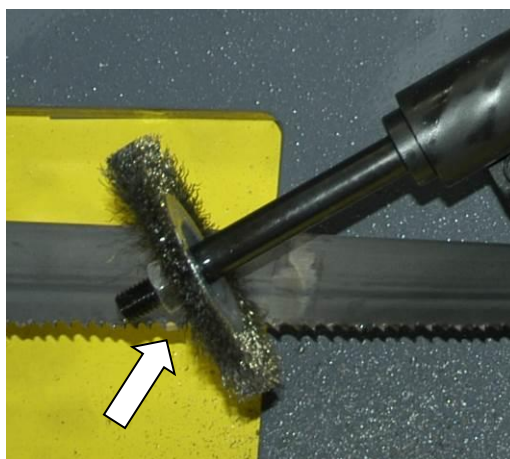
4.11. Round brush replacement

If the chip removing brush is not able to fulfil its function, it has to be replaced.

1. Dismount the cover of the brush. / Open the cover of the band arm



2. Hold shaft of the brush by wrench.



3. Release the nut on the brush, replace worn brush on the new brush, screw on the nut.
4. Adjust the brush to the saw band
16. Mount the brush cover back to its place / close saw arm cover

5. **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.
2. The cut is not cut upon desired angle	- Too fast cutting rate.	Lower the material feeding speed.
	- 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“.
3. Short lifetime of the saw band	- Guiding arm and guiding cube are loosened.	Fasten the guiding arm and the cube.
	- 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“
	- 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“

Problem	Possible causes	Repair
	- 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 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.

Problem	Possible causes	Repair
	- 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.	

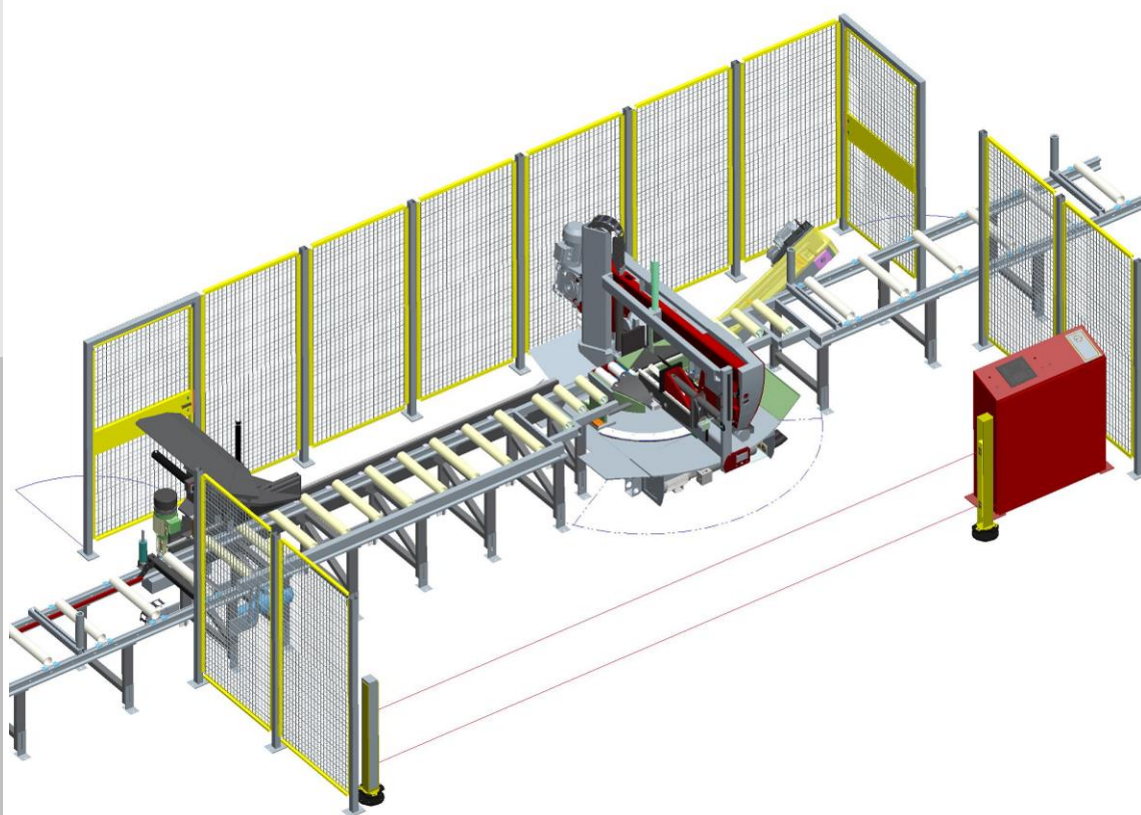
5.2. Electric and hydraulic problems

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.
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.

5.3. Hydraulic problems

Problem	Possible causes	Repair
1. Hydrogenerator not supplying oil	• reverse rotation	Check the connections of each phase. Reconnect properly connection of the electrical phases.
	• shortage of oil in the tank	Add hydraulic oil
	• Oil viscosity does not correspond prescribed viscosity value	Change hydraulic oil.
	• Hydrogenerator malfunction	Call service
	• Wrong power supply connection.	Check the connections of each phase. Reconnect properly connection of the electrical phases.
2. Hydraulic oil contains bubbles	• Hydraulic circuit is not adequately deaerated	Make deaeration of hydraulic circuit.
	• Low oil level	Add hydraulic oil
	• the pump shaft seals damaged	Call service
3. Increased mechanical noise	• damaged joint drive	Call service
	• damaged or destroyed motor bearings	Call service
	• air intake	Check for leaks.
4. Low pressure, pump supplies oil	• problem in the safety valve	Wrong settings. Check the settings and adjust the safety valve.
	• pump wear	Call service
	• external or internal leakage	Call service
5. Hydrogenerator is seized	• damage by solid particles in oil	Make oil filtration, or call the service.
	• non-prescribed oil	Change hydraulic oil.
	• wrong type of oil	Change hydraulic oil.
	• exceeding the life of the pump	Call service
6. Overheating oil	• cooler malfunction	Check the cooler function or call service.
	• wear the pump, the energy is converted into heat	Call service
7. Hydraulic valve can not be readjusted	• electromagnet has no signal (voltage) - interrupted supply lines	Check again.
	• Electromagnet coil burnt	Replace coil – Call service.
	• spool valve sticking	Replace valve – Call service

Series **Individual Automatic**



Individual 520.360 DGANC

Operating instructions

Book 2

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

Seriové číslo / Serien Nummer / Serial Number _____

Service and information

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Direct BOMAR contact:

BOMAR spol. s r.o.
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telefon: +420 – 533 426 100
fax: +420 – 533 426 109
e-mail: info@bomar.cz
www: <http://www.bomar.cz>

We are available:

Mondays to Fridays

7⁰⁰ – 16⁰⁰

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0	1	2	3	4	5	6	7	8	9
 Individual 520.360 DGA ES-101.442-201/202-V3.0 Wiring diagram 3x400V + PE, 50Hz  Bomar, spol. s r.o. Těžební 1236/1 627 00 Brno Czech republic									
 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno		Stroj/Machine/Maschine: Individual 520.360 DGA		Název stránky/Name page/Name seiten: Úvodní strana / Home page / Einstiegsseite Start page Startseite			Číslo dok./Doc.No./Anzahl der Dokumente.: ES-101.442-201/202-V3.0 Náhlenní/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Hat verarbeitet: 21.09.2020		
							Číslo/No.: 1 Číslo/No.: 46		

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/3.b	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.c	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.d	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.e	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.f	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.g	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.h	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.i	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.j	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.k	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.l	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/3.m	Kusovník artiklů / Parts list / Artikelstückliste	21.09.2020
/4	Technická data / Technical data / Technische Daten	21.09.2020
/5	Rozmístění prvků na ovládacím panelu rozvaděče / Placement of elements of the control panel cabinet / Einsatz der Elemente des Bedienfelds Schrank	21.09.2020
/6	Rozmístění prvků v rozvaděči R1 / Placement of elements in the cabinet R1 / Einsatz der Elemente im Schrank R1	21.09.2020
/7	Plán konektoru --X12	21.09.2020
/8	Plán konektoru --X13	21.09.2020
/9	Silová část / Power part / Netzteil	21.09.2020
/10	Blok napájení / Power supply block / Stromversorgungsblock	21.09.2020
/11	Silová část M1, M2 / Power part M1, M2 / Netzteil M1, M2	21.09.2020
/12	Silová část M3, M4 / Power part M3, M4 / Netzteil M3, M4	21.09.2020
/13	Pohon podavače / Feeder drive / Feeder-Laufwerk	21.09.2020
/14	Pohon rotace / Rotation drive / Drehantrieb	21.09.2020

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/16	Bezpečnostní okruh / Safety circuit / Sicherheitskreis	21.09.2020
/17	Bezpečnostní závory 1/ Safety barriers 1/ Sicherheitsbarrieren 1	21.09.2020
/18	Bezpečnostní závory 2/ Safety barriers 2/ Sicherheitsbarrieren 2	21.09.2020
/19	CPU - AI, DI	21.09.2020
/20	CPU - DI, RS232	21.09.2020
/21	CPU - DI	21.09.2020
/22	CPU - DI, FDI	21.09.2020
/23	CPU - DO, DI	21.09.2020
/24	CPU - DO	21.09.2020
/25	Napínání pásu / Belt tensioning / Riemenspann	21.09.2020
/26	Čítač / Counter / Zähler	21.09.2020
/27	Vstupy / Inputs / Eingänge	21.09.2020
/28	Výstupy / Outputs / Ausgänge	21.09.2020
/29	Výstupy / Outputs / Ausgänge	21.09.2020
/30	Výstupy / Outputs / Ausgänge	21.09.2020
/31	CPU místní správa / CPU local management / CPU Lokale Management	21.09.2020
/32	Příslušenství / Accessories / Zubehör	21.09.2020

2	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Page page/Name seiten: Obsah / Content / Inhalt Table of contents Inhaltsverzeichnis	Číslo dok./Doc.No./Anzahl der Dokumente.: ES-101.442-301/202-V3.0 Napájení/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Hat verarbeitet: 21.09.2020	Úděl/Pages/ Seiten: 2a Úděl/Pages/ Seiten: 46
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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
-BM1	Bezpečnostní relé 24VDC, 3NO/1NC Safety relay 24VDC, 3NO/1NC Sicherheitsrelais 24VDC, 3NO/1NC	BT50	ABB	91.051.063	1	/16.6
-FA1	Motorový spouštěč - 0.4A Motor starter - 0.4A Motorstarter - 0.4A	MS116-0,4	ABB	91.045.017	1	/11.6
-FA1	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/11.6
-FA2	Motorový spouštěč - 2.5A Motor starter - 2.5A Motorstarter - 2.5A	MS116-2,5	ABB	91.045.021	1	/11.1
-FA2	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/11.1
-FA3	Motorový spouštěč - 1A Motor starter - 1A Motorstarter - 1A	MS116-1,00	ABB	91.045.019	1	/12.2
-FA3	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/12.2
-FA4	Motorový spouštěč - 1.6A Motor starter - 1.6A Motorstarter - 1.6A	MS116-1,6	ABB	91.045.020	1	/12.5
-FA4	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/12.5
-FU3	Pojistkový odpojovač E90 - 1P Fuse disconnecter E90 - 1P Sicherungsstrenger E90 - 1P	E 91/32	ABB	91.241.012	1	/10.6
-KM1	Ministrykač 4kW/400V Minicontactor 4kW/400V Minischütz 4kW/400V	B6S-30-01-1,7-71	ABB	91.040.049	1	/23.2
-KM2A	Stýkač 5,5kW/400V Contactor 5,5kW/400V Schütz 5,5kW/400V	AF12-30-01-11	ABB	91.040.051	1	/30.1

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Zahl der Dokumente: ES-101.442-201/202-V3.0				Úč/Pages/ Seiten: 3
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			Zpracová/Processed /Mit verarbeitet: 21.09.2020				

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seřadí/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Hat verarbeitet: 21.09.2020	List/Page/ Seiten: 3a
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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
-PA1	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylinder einsätze - 3P	E93/32	ABB	91.241.014	1	/13.0
-PA2	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylinder einsätze - 3P	E93/32	ABB	91.241.014	1	/14.0
-PA3	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylinder einsätze - 3P	E93/32	ABB	91.241.014	1	/15.0
-PA4	Pojistkový odpínač pro válcové vložky - 3P Switch fuse for the cylinder inserts - 3P Schalter Sicherung für den Zylinder einsätze - 3P	E93/32	ABB	91.241.014	1	/10.0
-QS1	3 pólový odpínač, 25A Disconnecter - 3P, 25A Trennschalter - 3P, 25A	OT25FT3	ABB	91.170.016	1	/9.0
-QS1	Kryt svorek Terminal shroud Klemmenabdeckung	OTS40T3	ABB	91.170.017	1	/9.0
-QS1	Rukojeť odpínače - černá Handle switch - black Griffschalter - schwarz	OHBS2RJ	ABB	91.180.015	1	/9.0
-ZD1	Napájecí zdroj - 3x400VAC/24VDC, 20A Power supply - 3x400VAC/24VDC, 20A Energieversorgung - 3x400VAC/24VDC, 20A	CP-T 24/20.0	ABB	91.085.031	1	/10.1
-KL	Převodník maticové klávesnice na RS232 Converter matrix keyboard to RS232 Converter Matrix-Tastatur auf RS232	HT4582-232	AKI ELECTRONIC, spol.s.r.o.	91.995.102	1	/31.1
-SP1	Hydraulický tlakový spínač 20-50bar Hydraulic pressure switch 20-50bar Hydraulische Druckschalter 20-50 bar	166415031059	ARGO HYTOS	92.201.003	1	/27.3
-SP2	Hydraulický tlakový spínač 20-50bar Hydraulic pressure switch 20-50bar Hydraulische Druckschalter 20-50 bar	166415031059	ARGO HYTOS	92.201.003	1	/27.4
-SP3	Hydraulický tlakový spínač 20-50bar Hydraulic pressure switch 20-50bar Hydraulische Druckschalter 20-50 bar	166415031059	ARGO HYTOS	92.201.003	1	/27.6

The manufacturer reserves right to use an equivalent replacement device.

3.a	 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Zahl der Dokumente: ES-101.442-201/202-V3.0		Úč/Pages/ Seiten: 3.0
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				Zpracoval/Processed / hat verarbeitet:		
				Datum/Dat./Datum:		

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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung			Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle	
-SP4	Hydraulický tlakový spínač 20-50bar Hydraulic pressure switch 20-50bar Hydraulische Druckschalter 20-50 bar			166415031059	ARGO HYTOS	92.201.003	1	/27.9	
-A1.1	CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7" CP1382 + Panel T30, 5,7"			T3057CP1382	B&R	91.995.253	1	/31.3	
-A4.1	Digitální čítač - 24V ABR Digital counter - 24V ABR Digitaler Zähler - 24V ABR			X20DC1396	B&R	91.995.210	1	/26.1	
-A4.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O			X20BM11	B&R	91.995.205	1	/26.1	
-A4.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin			X20TB12	B&R	91.995.217	1	/26.1	
-A5.1	Modul digitálních vstupů Digital input module Digitales Eingangsmodul			X20DI9371	B&R	91.995.212	1	/27.0	
-A5.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O			X20BM11	B&R	91.995.205	1	/27.0	
-A5.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin			X20TB12	B&R	91.995.217	1	/27.0	
-A7.1	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul			X20DO8332	B&R	91.995.213	1	/28.0	
-A7.1	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O			X20BM11	B&R	91.995.205	1	/28.0	
-A7.1	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin			X20TB12	B&R	91.995.217	1	/28.0	
-A7.2	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul			X20DO8332	B&R	91.995.213	1	/29.0	

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0		Ust/Page/ Seite: 3.c
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-A7.2	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/29.0
-A7.2	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/29.0
-A7.3	Modul digitálních výstupů Digital output module Digitales Ausgangsmodul	X20DO8332	B&R	91.995.213	1	/30.0
-A7.3	Sběrníkový modul - 1xI/O Bus module - 1xI/O Bus module - 1xI/O	X20BM11	B&R	91.995.205	1	/30.0
-A7.3	Svorkovnice 12-pin Terminal block 12-pin Klemmenblock 12-pin	X20TB12	B&R	91.995.217	1	/30.0
-FM1	Frekvenční měnič - 3x 380-500 V, 1,1 kW Frequency inverter - 3x 380-500V, 1,1 kW Frequenzumrichter - 3x 380-500V, 1,1 kW	8166T400110.0P-000	B&R	91.012.188	1	/13.0
-FM2	Frekvenční měnič - 3x 380-500 V, 0,37 kW Frequency inverter - 3x 380-500V, 0,37 kW Frequenzumrichter - 3x 380-500V, 0,37 kW	8166T400037.0P-000	B&R	91.012.185	1	/14.0
-FM3	Frekvenční měnič - 3x 380-500 V, 3 kW Frequency inverter - 3x 380-500V, 3 kW Frequenzumrichter - 3x 380-500V, 3 kW	8166T400300.0P-000	B&R	91.012.201	1	/15.0
-BQ1	Indukční snímač vzdálenosti Inductive proximity sensor Induktive Näherungssensor	BAW R06AC-UAF20B-EP03	BALLUFF	91.172.016	1	/19.3
-SQ1	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/19.7
-SQ8	Koncový spínač - 1NO Limit switch - 1NO Endschalter - 1NO	BNS 819-99-D-13-S80	BALLUFF	91.173.016	1	/26.5
-SQ14	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	/27.5

The manufacturer reserves right to use an equivalent replacement device.

 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Zahl der Dokumente.: ES-101.442-201/202-V3.0		Úplň/Pag/ Seiten: 3 d
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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
-SQ15	Indukční snímač - Sn=1,5mm Inductive sensors - Sn = 1.5 mm Induktive Sensoren - Sn = 1,5 mm	JPS 30D 08L5 PNOFC	BALLUFF	91.172.009	1	/27.7
-M3	Asynchronní motor 3x230/400V, 50Hz, 0,25kW Asynchronous motor 3x230 / 400V, 50Hz, 0.25 kW Asynchronmotor 3x230 / 400V, 50Hz, 0.25 kW	BN71A4	BONFIGLIOLI	91.001.255	1	/12.2
-M6	Asynchronní motor - 3x230/400V, 50Hz, 0,37kW Asynchronous motor - 3x230 / 400V, 50Hz, 0.37kW Asynchronmotor - 3x230 / 400V, 50Hz, 0.37kW	BN71B4	BONFIGLIOLI	91.001.106	1	/14.0
-SQ9	Kabel ke snímači s přímým konektorem M8 Sensor cable with a straight connector M8 Sensorkabel mit einem geraden Stecker M8	CF08SB-6	CREATIVE TECHNIK	91.142.003	1	/27.1
-SQ10	Kabel ke snímači s úhlovým konektorem M8 Sensor cable with angled connector M8 Sensorkabel mit Winkelstecker M8	PLM8-6	CREATIVE TECHNIK	91.142.004	1	/27.1
-SQ14	Kabel ke snímači s přímým konektorem M8 Sensor cable with a straight connector M8 Sensorkabel mit einem geraden Stecker M8	CF08SB-6	CREATIVE TECHNIK	91.142.003	1	/27.5
-SQ15	Kabel ke snímači s úhlovým konektorem M8 Sensor cable with angled connector M8 Sensorkabel mit Winkelstecker M8	PLM8-6	CREATIVE TECHNIK	91.142.004	1	/27.7
-H1	Maják - základna Lighthouse - Base Leuchtturm - Basis	SL7-CB-100	EATON	91.063.058	1	/23.3
-H1	Maják - žlutý Lighthouse - yellow Leuchtturm - gelb	SL7-L-Y	EATON	91.063.059	1	/23.3
-H1	Žárovka 24V Lamp 24V Lampe 24V	SL7-L24	EATON	91.063.061	1	/23.3
-H2	Signálka LED zelená na adaptér Green light for Eaton adapter Grünes Licht für Eaton-Adapter	M22-LED-G	EATON	91.061.023	1	/23.4
-H510	Signálka LED bílá na adaptér White LED light for adapter Weißes LED-Licht für Adapter	M22-LED-W	EATON	91.061.034	1	/16.6

The manufacturer reserves right to use an equivalent replacement device.

3.d	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seznam strojů/Machine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Has verarbeiet: 21.09.2020	Stránka/ Page: 3.a List/Page: 46
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-OP2	Krabice - 3 díry Box - 3 holes Box - 3 Löcher	M22-13-IP66	EATON	91.190.052	1	/25.1
-OP2-SB10	Hlavice tlačítka - černá Head button - black Kopffaste - schwarz	M22-D-S	EATON	91.060.035	1	/25.3
-OP2-SB10	Hmatník tlačítka - šipka Pushbutton fingerboard - arrow Druckknopf Griffbrett - Pfeil	M22-XD-S-X7	EATON	91.062.002	1	/25.3
-OP2-SB10	Kontaktní blok - 1NO; do krabičky Contact block - 1NO; to box Hilfskontakt 1NO; zu Box	M22-KC10	EATON	91.061.030	2	/25.3
-OP2-SB11	Hlavice tlačítka - černá Head button - black Kopffaste - schwarz	M22-D-S	EATON	91.060.035	1	/25.5
-OP2-SB11	Hmatník tlačítka - šipka Pushbutton fingerboard - arrow Druckknopf Griffbrett - Pfeil	M22-XD-S-X7	EATON	91.062.002	1	/25.5
-OP2-SB11	Kontaktní blok - 1NO; to box Contact block - 1NO; to box Hilfskontakt 1NO; zu Box	M22-KC10	EATON	91.061.030	2	/25.5
-OP2-SB12	Hlavice tlačítka - černá Head button - black Kopffaste - schwarz	M22-D-S	EATON	91.060.035	1	/25.6
-OP2-SB12	Hmatník tlačítka - šipka Pushbutton fingerboard - arrow Druckknopf Griffbrett - Pfeil	M22-XD-S-X7	EATON	91.062.002	1	/25.6
-OP2-SB12	Kontaktní blok - 1NO; to box Contact block - 1NO; to box Hilfskontakt 1NO; zu Box	M22-KC10	EATON	91.061.030	2	/25.6
-SA1	Hlavice 3 polohového přepínače Head of 3 position switch Leiter der 3-Positionsschalter	M22-WRK3	EATON	91.060.051	1	/21.4
-SA1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/21.4

The manufacturer reserves right to use an equivalent replacement device.

3.e	 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Zahl der Dokumente: ES-101.442-201/202-V3.0		ListPage/ Seiten: 31
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednávací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SA1	Kontaktní blok - 1NO; na panel Contact block - 1NO; on the panel Kontaktblock - 1NO; auf dem panel	M22-K10	EATON	91.061.022	1	/21.4
-SA1	Nosič štítků Moeller Moeller label holder Moeller Etikettenhalter	M22S-ST-X	EATON	91.062.009	1	/21.4
-SA2	Hlavice 2 polohového přepínače, klíček Head 2 position switch, key Head 2-Positionsschalter, Schlüssel	M22-WRS2	EATON	91.060.070	1	/16.2
-SA2	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/16.2
-SA2	Kontaktní blok - 1NC; na panel Contact block - 1NC; on the panel Kontaktblock - 1NC; auf dem panel	M22-K01	EATON	91.061.024	2	/16.2
-SA2	Nosič štítků Moeller Moeller label holder Moeller Etikettenhalter	M22S-ST-X	EATON	91.062.009	1	/16.2
-SB1	Hlavice prosvětleného tlačítka zelená Green transparent switch Grün transparent Schalter	M22-DL-G	EATON	91.060.031	1	/21.1
-SB1	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/21.1
-SB1	Nosič štítků Moeller Moeller label holder Moeller Etikettenhalter	M22S-ST-X	EATON	91.062.009	1	/21.1
-SB2	Hlavice tlačítka - černá Head button - black Kopftaste - schwarz	M22-D-S	EATON	91.060.035	1	/21.2
-SB2	Upevňovací adaptér + 1NC Attaching adapter + 1NC Anbringen Adapter + 1NC	M22-AK01	EATON	91.061.020	1	/21.2
-SB2	Nosič štítků Moeller Moeller label holder Moeller Etikettenhalter	M22S-ST-X	EATON	91.062.009	1	/21.2

The manufacturer reserves right to use an equivalent replacement device.

3.f	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seznam přístrojů/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Has verarbeiet: 21.09.2020	Úděl/Pages: Stránky: 3g Úděl/Pages: System: 4g
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Kusovník artiklů / Parts list / Stückliste

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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			
-SB510	Hlavice prosvětleného tlačítka žlutá Yellow transparent switch Leiter beleuchtet gelbe Taste	M22-DL-Y	EATON	91.060.053	1	/16.7			
-SB510	Kontaktní blok - 1NO; na panel Contact block - 1NO; on the panel Kontaktblock - 1NO; auf dem panel	M22-K10	EATON	91.061.022	1	/17.3			
-SB510	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/16.7			
-ENC1	Lineární inkrementální snímač - 10-30VDC/10-30VDC, 8 m, volné Linear Encoder - 10-30VDC / 10-30VDC, 1,5 m, open Linear-Encoder - 10-30VDC / 10-30VDC	LMIX2-026-08.0-1-00-L	ELGO	92.270.018	1	/26.1			
-ENC1	Magnetická páska Magnetic tape Magnetband	MB20.50	ELGO	91.271.002	1	/26.1			
-HS1	Lineární inkrementální snímač - 10-30VDC/10-30VDC, 8 m, volné Linear Encoder - 10-30VDC / 10-30VDC, 1,5 m, open Linear-Encoder - 10-30VDC / 10-30VDC	LMIX2-026-08.0-1-00-L	ELGO	92.270.018	1	/22.4			
-HS1	Magnetická páska Magnetic tape Magnetband	MB20.50	ELGO	91.271.002	1	/22.4			
-HS3	Lineární inkrementální snímač - 10-30VDC/10-30VDC, 8 m, volné Linear Encoder - 10-30VDC / 10-30VDC, 1,5 m, open Linear-Encoder - 10-30VDC / 10-30VDC	LMIX2-026-08.0-1-00-L	ELGO	92.270.018	1	/22.2			
-HS3	Magnetická páska Magnetic tape Magnetband	MB20.50	ELGO	91.271.002	1	/22.2			
-FU2	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/10.5			
-FU4	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/10.7			
-FU5	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/10.8			

The manufacturer reserves right to use an equivalent replacement device.

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 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0		Úplň/Paper/ Sheet: 34		
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Označení přístroje Device identification	Typ přístroje Device description	Objednací číslo Type number	Výrobce Manufacturer	Skladové číslo Lager number	Množství Quantity	Umístění Location
-F06	Pojistka trubičková - 2A/250V, pomalá, 5x20 Tube fuse - 2A/250V, slow, 5x20 Rohrsicherung - 2A / 250V, langsam, 5x20	T2A/250V	ESKA	91.230.001	1	/10.9
-F07	Pojistka trubičková - 200mA/250V, pomalá, 5x20 Tube fuse - 200mA/250V, slow, 5x20 Rohrsicherung - 160mA / 250V, langsam, 5x20	T200mA/250V	ESKA	91.230.037	1	/32.1
-F08	Pojistka trubičková - 200mA/250V, pomalá, 5x20 Tube fuse - 200mA/250V, slow, 5x20 Rohrsicherung - 160mA / 250V, langsam, 5x20	T200mA/250V	ESKA	91.230.037	1	/32.3
-+OP1-PR1	Potenciometr 4k7 Potentiometer 4k7	TP195 4k7/N20A	Elektronické součástky CZ, a.s	91.283.015	1	/15.6
-M1	Čerpadlo 3x230/400V, 50Hz, 120W Pump 3x230 / 400V, 50Hz, 120W Pumpe 3x230 / 400V, 50Hz, 120W	4COA4-14HP1	EmP s.r.o.	91.020.016	1	/11.6
-HV2A	Ventilový konektor, LED Valve Plug, LED Ventilianschluss, LED	VCAFA0322-LED	Finecables Co.,Ltd.	93.017.077	1	/28.1
-+OP1-PR1	Hlavice potenciometru - 24mm Head of potentiometer 24mm Leiter Potentiometer 24mm	S8877 BLK	GES-ELECTRONICS, a.s.	91.060.063	1	/15.6
-LP2	Laser Laser Laser	Laser 24AC/DC	HOFMAN SYSTEMS s.r.o.	91.100.109	1	/32.4
-SB501	Total stop - hlavice + 2xNC Emergency-stop - button + 2xNC Not-Aus-Plz - Taster + 2xNC	YW1B-V4E02R	IDEC	91.060.084	1	/16.5
-LQ1A	Jednocestná světelná závora - přijímač; M12-konektor; 0,3 m Through-beam sensor receiver; M12-male; 0,3 m Einweglichtschranke Empfänger; M12-male; 0,3 m	IFM.O6E701	IFM electronic	91.401.030	1	/20.2
-LQ1B	Jednocestná světelná závora - vysílač; M12-konektor; 0,3 m Through-beam sensor transmitter; M12-male; 0,3 m Einweglichtschranke Sender; M12-male; 0,3 m	IFM.O6S701	IFM electronic	91.401.031	1	/20.3
-LQ2A	Jednocestná světelná závora - přijímač; M12-konektor; 0,3 m Through-beam sensor receiver; M12-male; 0,3 m Einweglichtschranke Empfänger; M12-male; 0,3 m	IFM.O6E701	IFM electronic	91.401.030	1	/27.7

The manufacturer reserves right to use an equivalent replacement device.

3.h	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Has verarbeiet: 21.09.2020	Stránka/ Page: 31 Kusovník/ System: 46
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-LQ2B	Jednocestná světelná závoř - vysílač; M12-konektor; 0,3 m Through-beam sensor transmitter; M12-male; 0,3 m Einweglichtschranke Sender; M12-male; 0,3 m	IFM.O6S701	IFM electronic	91.401.031	1	/27.8
-SQ10.10	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/16.2
-SQ21	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/16.5
-SQ22	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/16.5
-HV2A	PG9 - černá BS-22 PG9 - black BS-22 PG9 - schwarz BS-22	PG 9	KV components s.r.o.	91.070.002	1	/28.1
-FU3	Pojistka válcová - 10A, 10x38, pomalá Tube fuse - 10A, 10x38, slow Rohrsicherung - 10A, 10x38, langsam	PV10 10A gM	OEZ	91.230.041	1	/10.6
-PA1	Pojistka válcová - 16A, 10x38, rychlá Tube fuse - 16A, 10x38, fast Rohrsicherung - 16A, 10x38, schnell	PV10 16A gG	OEZ	91.230.020	3	/13.0
-PA2	Pojistka válcová - 6A, 10x38, rychlá Tube fuse - 6A, 10x38, fast Rohrsicherung - 6A, 10x38, schnell	PV10 6A gG	OEZ	91.231.002	3	/14.0
-PA3	Pojistka válcová - 16A, 10x38, rychlá Tube fuse - 16A, 10x38, fast Rohrsicherung - 16A, 10x38, schnell	PV10 16A gG	OEZ	91.230.020	3	/15.0
-PA4	Pojistka válcová - 2A, 10x38, rychlá Tube fuse - 2A, 10x38, fast Rohrsicherung - 2A, 10x38, schnell	PV10 2A gG	OEZ	91.230.034	3	/10.0
-SQ2	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/19.8
-SQ3	Koncový spínač - 1NC+1NO, M20, pomalý Limit switch - 1NC+1NO, M20, slow Endschalter - 1NC+1NO, M20, langsam	D4N-4A32	OMRON	91.173.010	1	/20.1

The manufacturer reserves right to use an equivalent replacement device.

3.i		BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0		Úč/Pages/ Seiten: 31
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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
-SQ7	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/23.8
-SQ4	Koncový spínač - 1NO + 1NC, kládka, pomalá akce Limit switch - 1NO + 1NC, pulley, slow action Endschalter - 1NO + 1NC, rolle, langsame Einwirkung	FR 605-M2	PIZZATO	91.173.009	1	/23.5
-SQ5	Koncový spínač - 1NO + 1NC, kládka, pomalá akce Limit switch - 1NO + 1NC, pulley, slow action Endschalter - 1NO + 1NC, rolle, langsame Einwirkung	FR 605-M2	PIZZATO	91.173.009	1	/23.6
-SQ6	Koncový spínač - 1NO + 1NC Limit switch - 1NO + 1NC Endschalter - 1NO + 1NC	FK 3301-M1	PIZZATO	91.173.015	1	/23.7
-SQ11	Koncový spínač - 1NO + 1NC Limit switch - 1NO + 1NC Endschalter - 1NO + 1NC	FK 3301-M1	PIZZATO	91.173.015	1	/27.2
-SQ12	Koncový spínač - 1NO + 1NC Limit switch - 1NO + 1NC Endschalter - 1NO + 1NC	FR 555-M2	PIZZATO	91.173.018	1	/27.3
-SQ13	Koncový spínač - 1NO + 1NC Limit switch - 1NO + 1NC Endschalter - 1NO + 1NC	FR 555-M2	PIZZATO	91.173.018	1	/27.4
-BM10.10	Bezpečnostní spínací přístroj Safety switch Sicherheitsschalter	SICK.1085343	SICK	91.051.071	1	/17.6
-BM10.11	Bezpečnostní spínací přístroj Safety switch Sicherheitsschalter	SICK.1085343	SICK	91.051.071	1	/18.6
-SQ9	Induktivní senzor - 2mm, NO, 24V DC, 200mA, M8 Inductive sensor - 2mm NO, 24VDC, 200 mA, M8 Induktive Sensor - 2mm NO, 24VDC, 200 mA, M8	IME08-02BPSZT05	SICK	91.172.033	1	/27.1
-SQ10	Induktivní senzor - 2mm, NO, 24V DC, 200mA, M8 Inductive sensor - 2mm NO, 24VDC, 200 mA, M8 Induktive Sensor - 2mm NO, 24VDC, 200 mA, M8	IME08-02BPSZT05	SICK	91.172.033	1	/27.1
-SZ10.10A	Vícepaprsková bezpečnostní světelná závořa - přijímač Safety multi-beam light curtain - receiver Sicherheits-Mehrstrahl-Lichtvorhang - Empfänger	M40E-025030RR0	SICK	91.401.009	1	/17.3

The manufacturer reserves right to use an equivalent replacement device.

3.j	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed / Hat verarbeitet: 21.09.2020	Stránka/ Page: 3.4 List/Seite/ Sheet: 46
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Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednávací číslo Part number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Lager number	Množství Quantity Menge	Umístění Location Stelle
-SZ10.10A	Kabel s přímým konektorem M12, 8pin Cable with straight connector M12, 8pin Kabel mit geradem Stecker M12, 8pin	DOL-127SG15ME2SKM0	SICK	91.142.015	1	/17.3
-SZ10.10B	Vícepaprsková bezpečnostní světelná závořa - vysílač Safety multi-beam light curtain - transmitter Sicherheits-Mehrstrahl - Lichtvorhang - Sender	M40S-025010AR0	SICK	91.401.008	1	/17.0
-SZ10.10B	Kabel s přímým konektorem M12, 8pin Cable with straight connector M12, 8pin Kabel mit geradem Stecker M12, 8pin	DOL-127SG15ME2SKM0	SICK	91.142.015	1	/17.0
-SZ10.11A	Vícepaprsková bezpečnostní světelná závořa - přijímač Safety multi-beam light curtain - receiver Sicherheits-Mehrstrahl - Lichtvorhang - Empfänger	M40E-025030RR0	SICK	91.401.009	1	/18.3
-SZ10.11A	Kabel s přímým konektorem M12, 8pin Cable with straight connector M12, 8pin Kabel mit geradem Stecker M12, 8pin	DOL-127SG15ME2SKM0	SICK	91.142.015	1	/18.3
-SZ10.11B	Vícepaprsková bezpečnostní světelná závořa - vysílač Safety multi-beam light curtain - transmitter Sicherheits-Mehrstrahl - Lichtvorhang - Sender	M40S-025010AR0	SICK	91.401.008	1	/18.0
-SZ10.11B	Kabel s přímým konektorem M12, 8pin Cable with straight connector M12, 8pin Kabel mit geradem Stecker M12, 8pin	DOL-127SG15ME2SKM0	SICK	91.142.015	1	/18.0
-+OP1-PR1	Svorka rychloupínací Fastconnect clamp Fast Connect Klemm	WAGO 224-112	WAGO	91.250.009	3	/15.6
-LP1	LED lampa LED lamp LED-Lampe	FL-T-24-1X3W	WIDECO	91.100.115	1	/32.1
-FU2	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THS15U	WIELAND	91.251.102	1	/10.5
-FU4	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THS15U	WIELAND	91.251.102	1	/10.7
-FU5	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THS15U	WIELAND	91.251.102	1	/10.8

The manufacturer reserves right to use an equivalent replacement device.

3.k	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Seř/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Zahl der Dokumente: ES-101.442-201/202-V3.0 Napájení/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracování/Processed /hat verarbeitet: 21.09.2020	Úplň/Pages/ Seiten: 31 Úplň/Review/ Seiten: 46
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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednáací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-FU6	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSI5U	WIELAND	91.251.102	1	/10.9
-FU7	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSI5U	WIELAND	91.251.102	1	/32.1
-FU8	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSI5U	WIELAND	91.251.102	1	/32.3
-M8	Ventilátor 24VDC, 154CFM Fan 24VDC, 154CFM Fan 24VDC, 154CFM	RDH1238 B2	Xinruilian Electronic Co.	91.015.126	1	/15.8
-RT10.7	Modem-router eWON COSY 131, WAN Modem-router eWON COSY 131, WAN Modem-router eWON COSY 131, WAN	EC61330	eWon	91.990.034	1	/32.5

The manufacturer reserves right to use an equivalent replacement device.

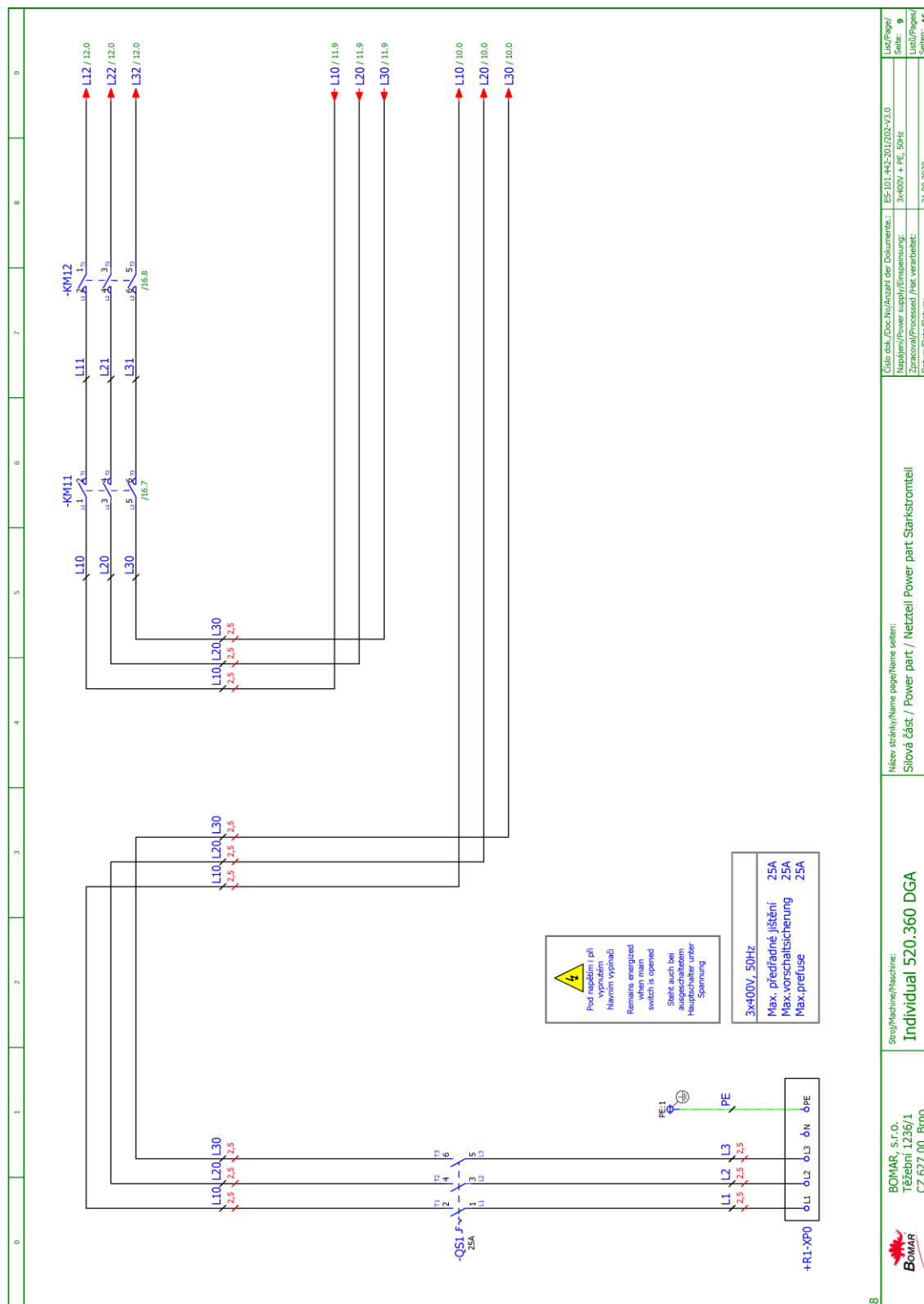
3.1	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Kusovník artiklů / Parts list / Artikelstückliste	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Napájení/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Has verarbeiet: 21.09.2020	Úděl/Pages/ Blat./Folien/ System: 3 46
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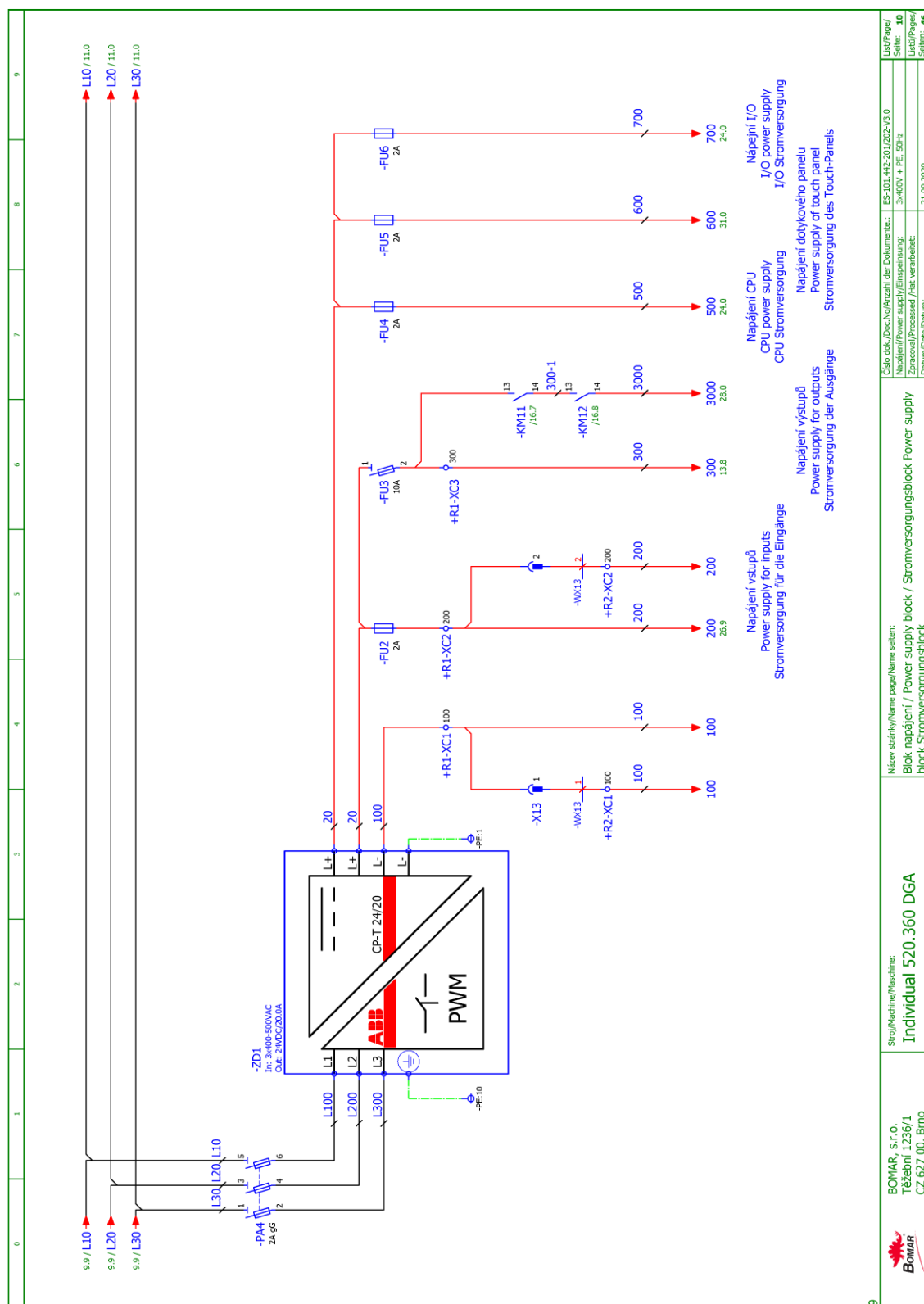
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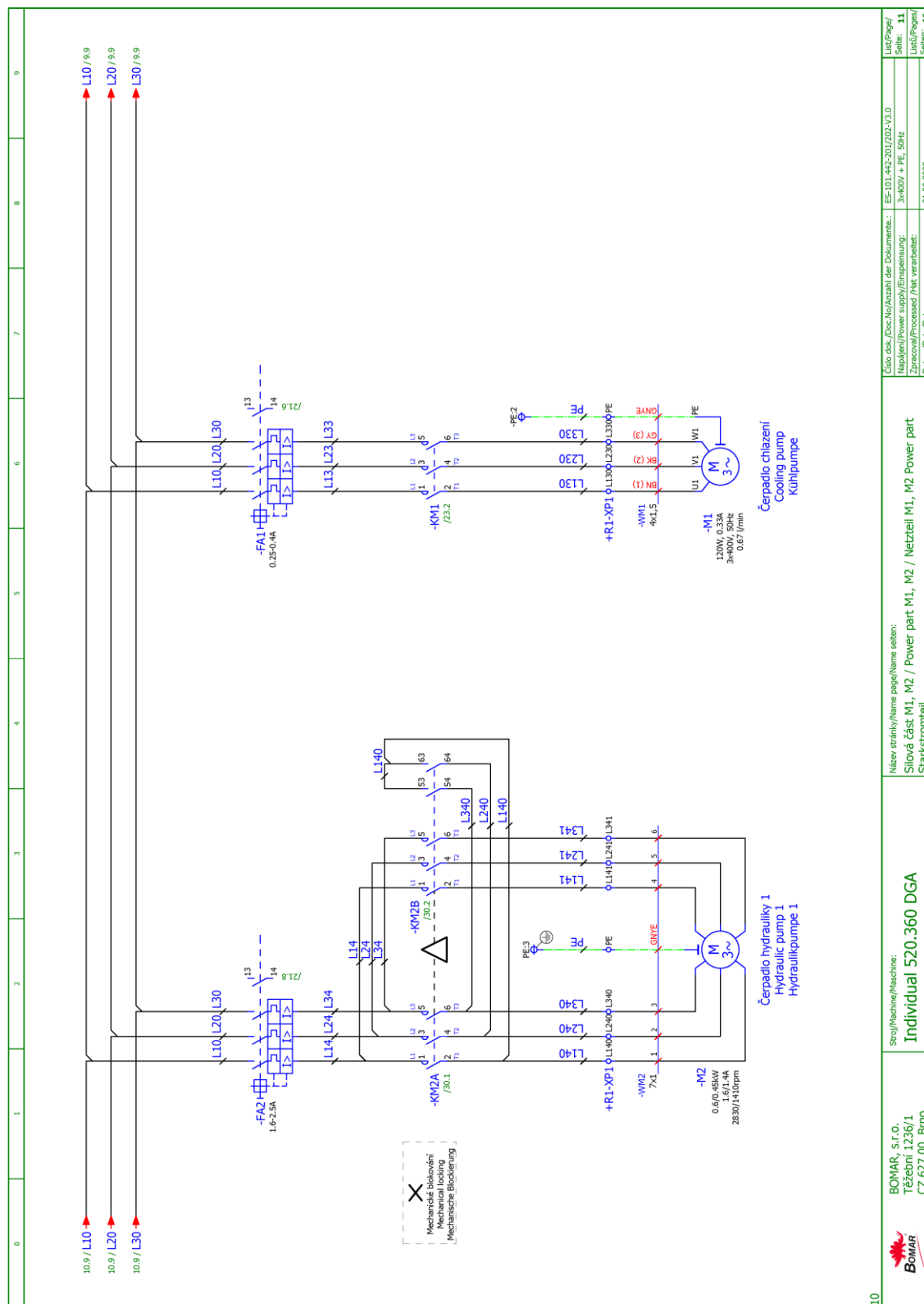


254

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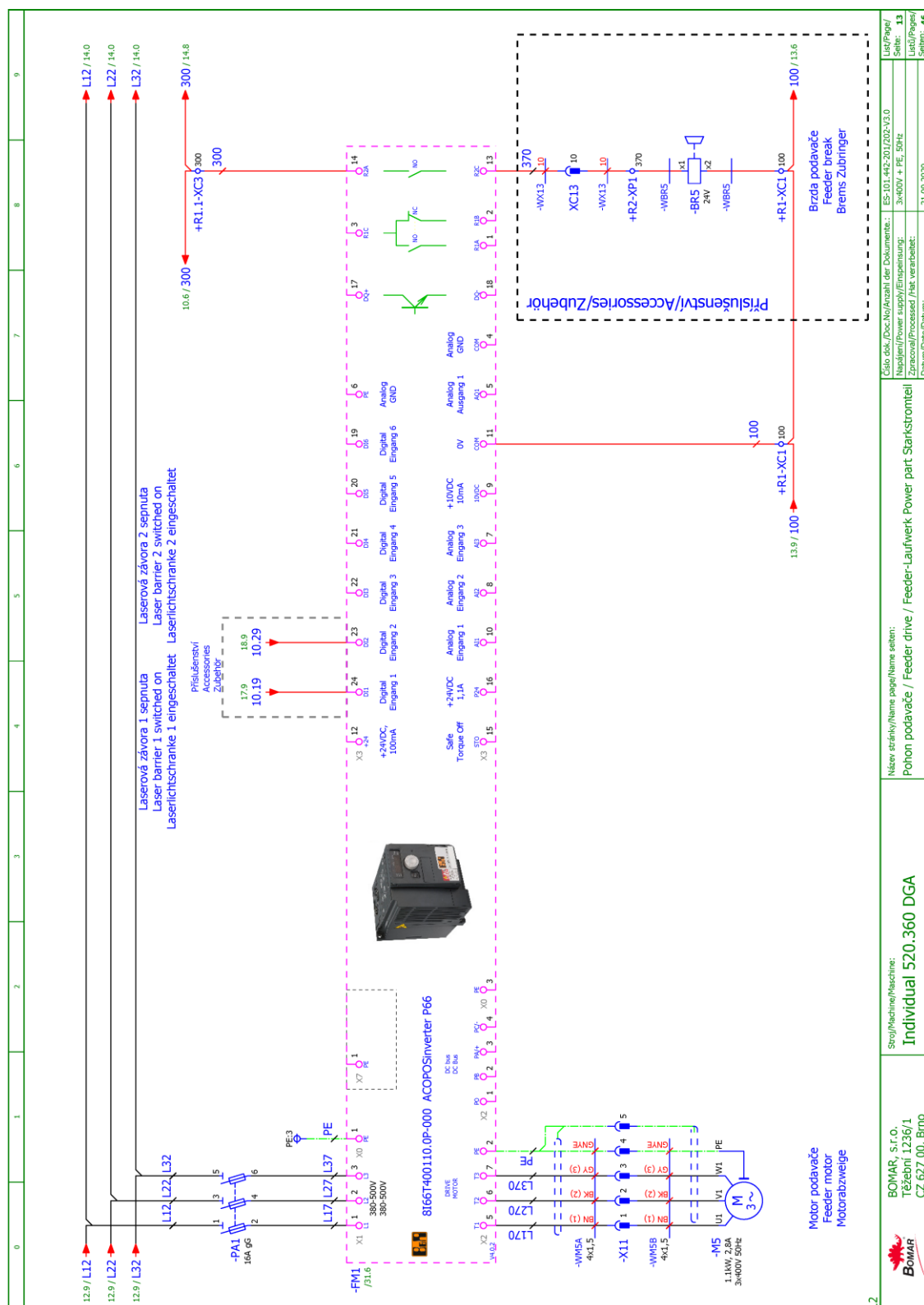


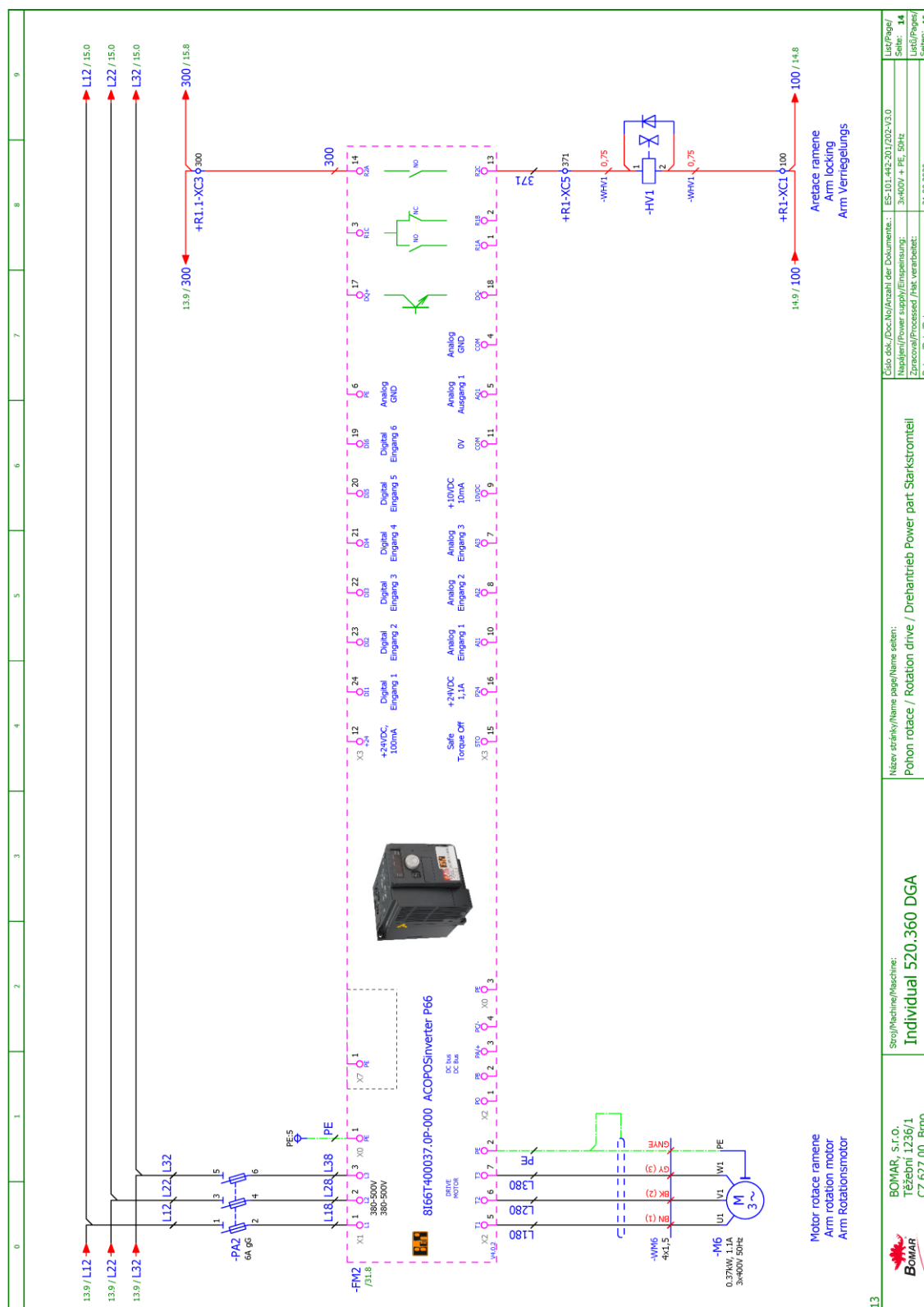


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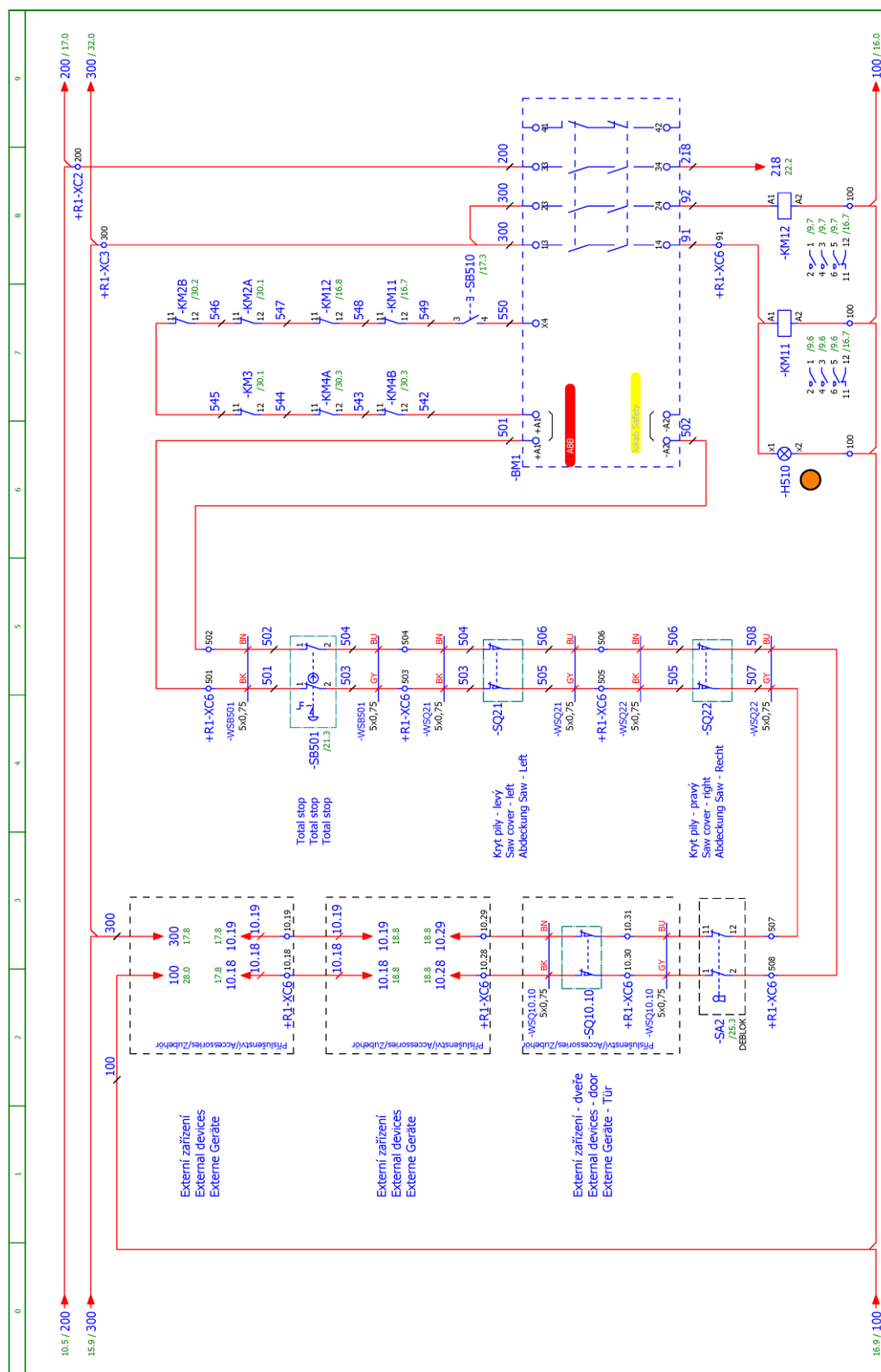
 BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Silová část M1, M2 / Power part M1, M2 / Netzeil M1, M2 Power part Starkstromteil	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Ernennung: 3x400V + PE, 50Hz Zpracoval/Processed /Has veranlasst: 21.09.2020	List/Seite/ Číslo/No./ Anzahl/Number: 11
	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Silová část M1, M2 / Power part M1, M2 / Netzeil M1, M2 Power part Starkstromteil	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Ernennung: 3x400V + PE, 50Hz Zpracoval/Processed /Has veranlasst: 21.09.2020	List/Seite/ Číslo/No./ Anzahl/Number: 11
	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Silová část M1, M2 / Power part M1, M2 / Netzeil M1, M2 Power part Starkstromteil	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Ernennung: 3x400V + PE, 50Hz Zpracoval/Processed /Has veranlasst: 21.09.2020	List/Seite/ Číslo/No./ Anzahl/Number: 11
	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Silová část M1, M2 / Power part M1, M2 / Netzeil M1, M2 Power part Starkstromteil	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0 Náplně/Power supply/Ernennung: 3x400V + PE, 50Hz Zpracoval/Processed /Has veranlasst: 21.09.2020	List/Seite/ Číslo/No./ Anzahl/Number: 11

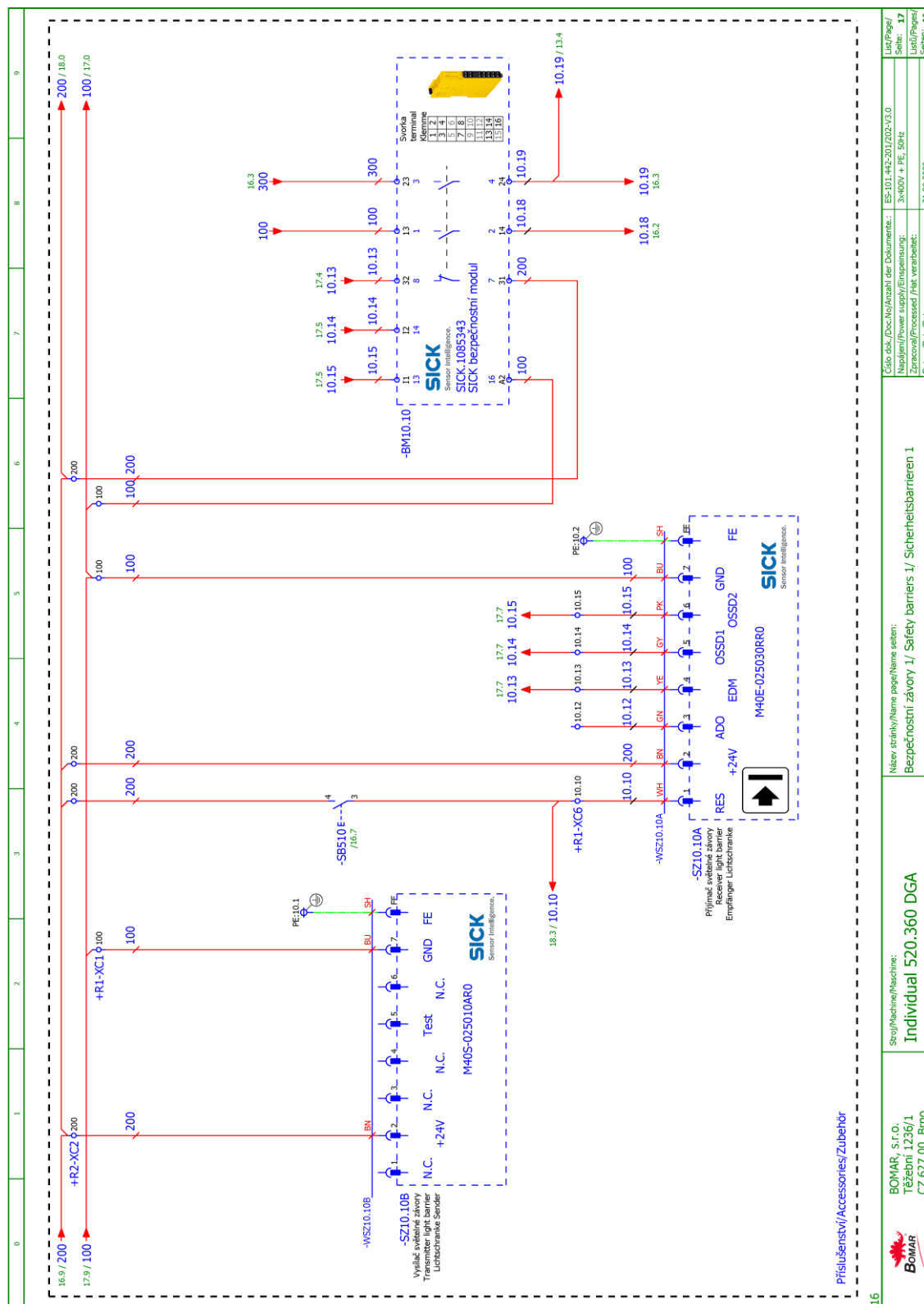










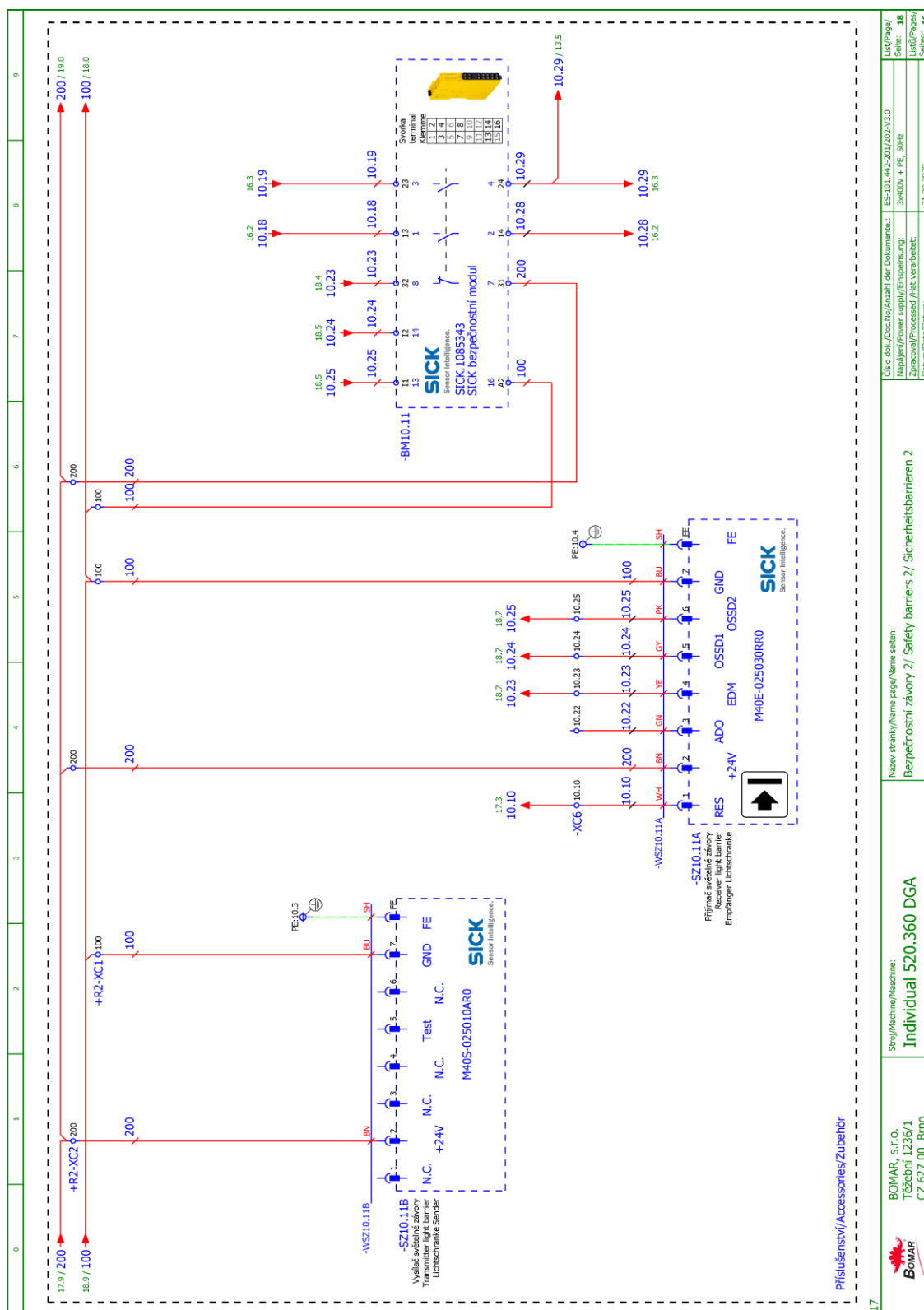


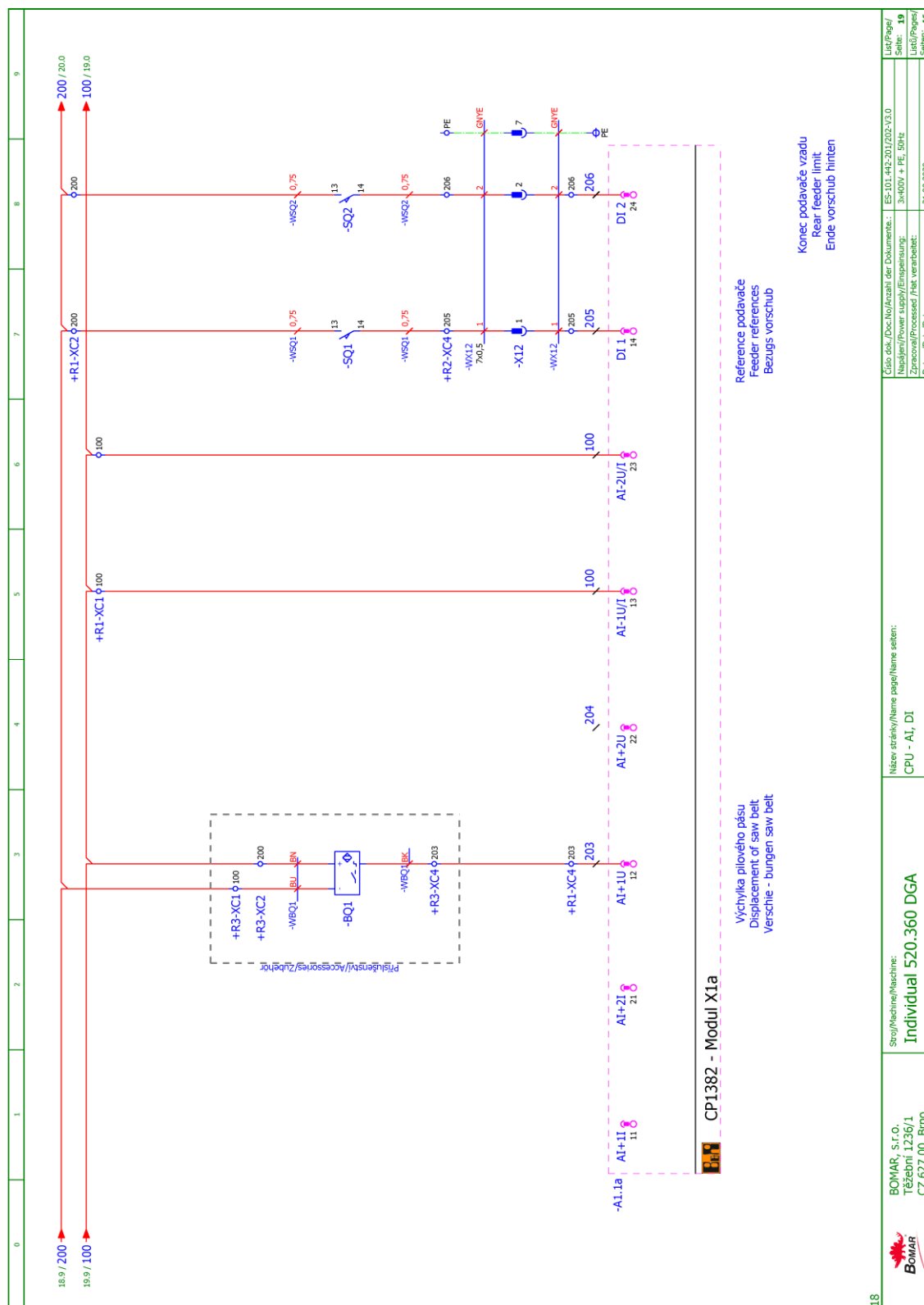
Příslušenství/Accessories/Zubehör

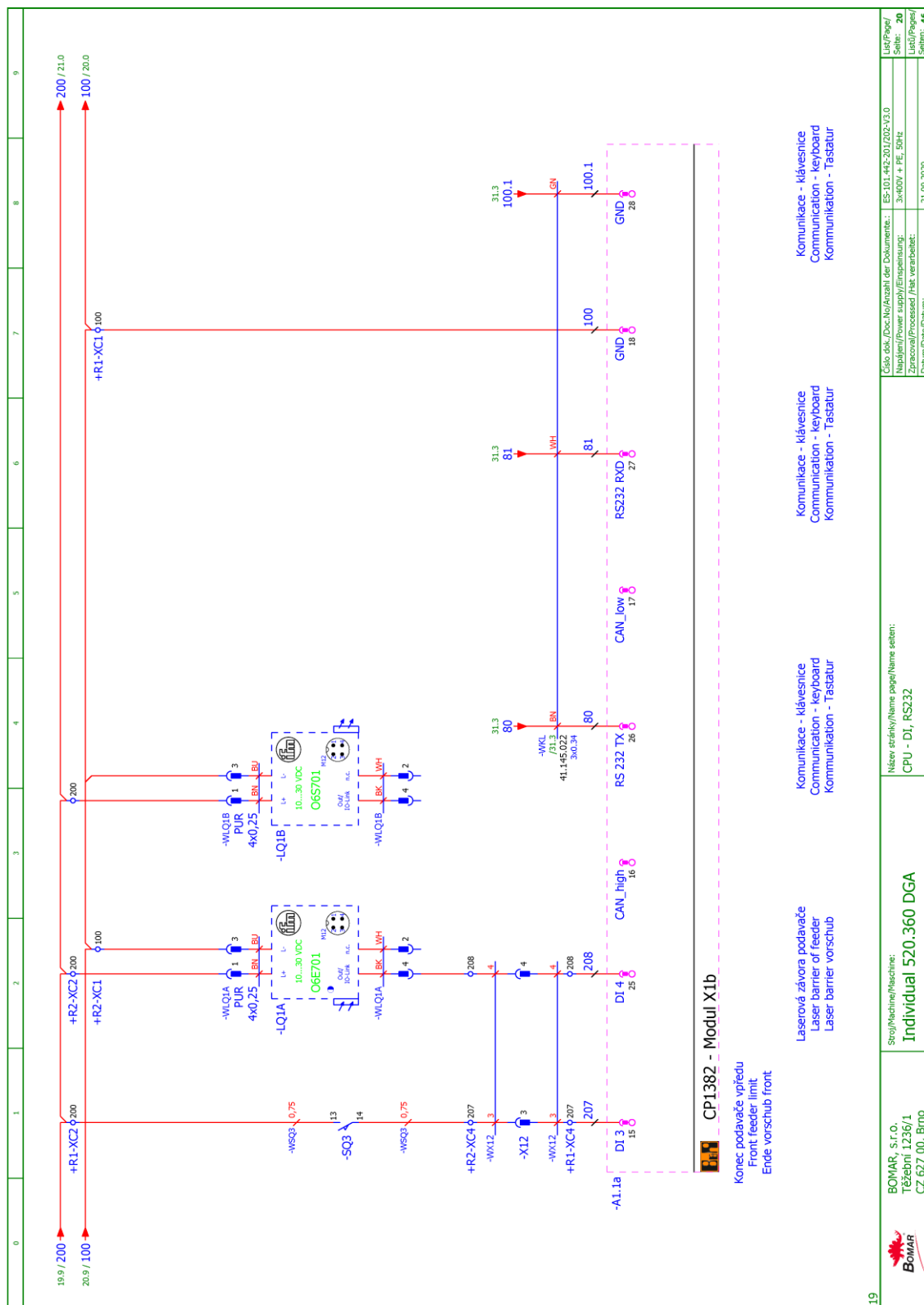
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Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: Bezpečnostní zábrany 1/ Safety barriers 1/ Sicherheitsbarrieren 1	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101-442-301/202-V3.0 Náplně/Power supply/Einspeisung: 3x400V + PE, 50Hz Zpracováno/Processed /Has verarbeiet: 21.09.2020 Datum/Date/Datum: 21.09.2020
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List/Page/ Liste: 17	List/Page/ Liste: 46
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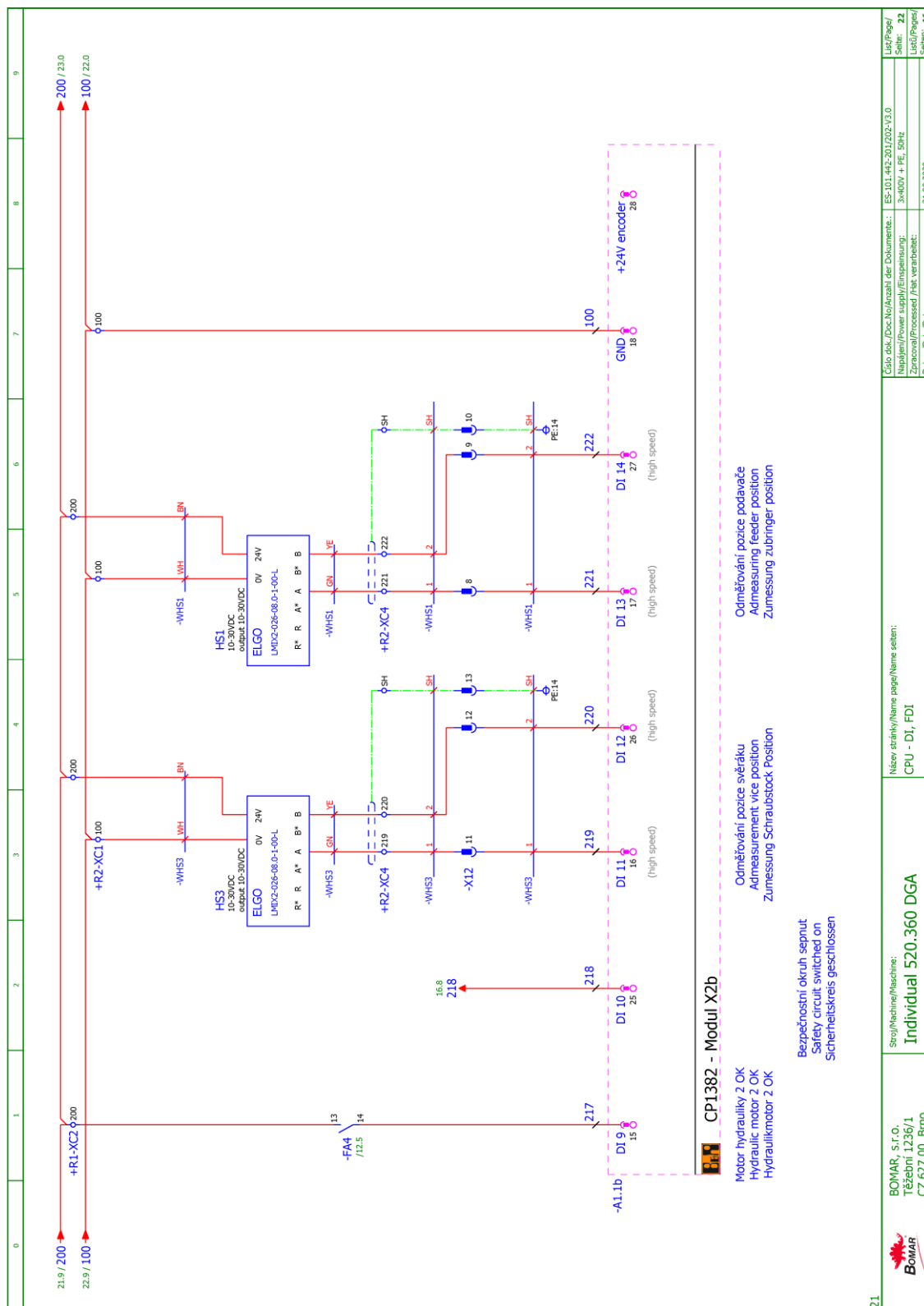






BOMAR, s.r.o. Třezbít 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Individual 520.360 DGA	Název stránky/Name page/Name seiten: CPU - DI, RS232	Číslo dok./Doc.No./Anzahl der Dokumente: ES-101.442-201/202-V3.0	ListPage/ Str. 20
			Napájení/Power supply/Einspeisung: 3x400V + PE, 50Hz	ListPage/ Str. 20
			Zpracování/Processed/Not verändertet: 21.09.2020	ListPage/ Str. 20

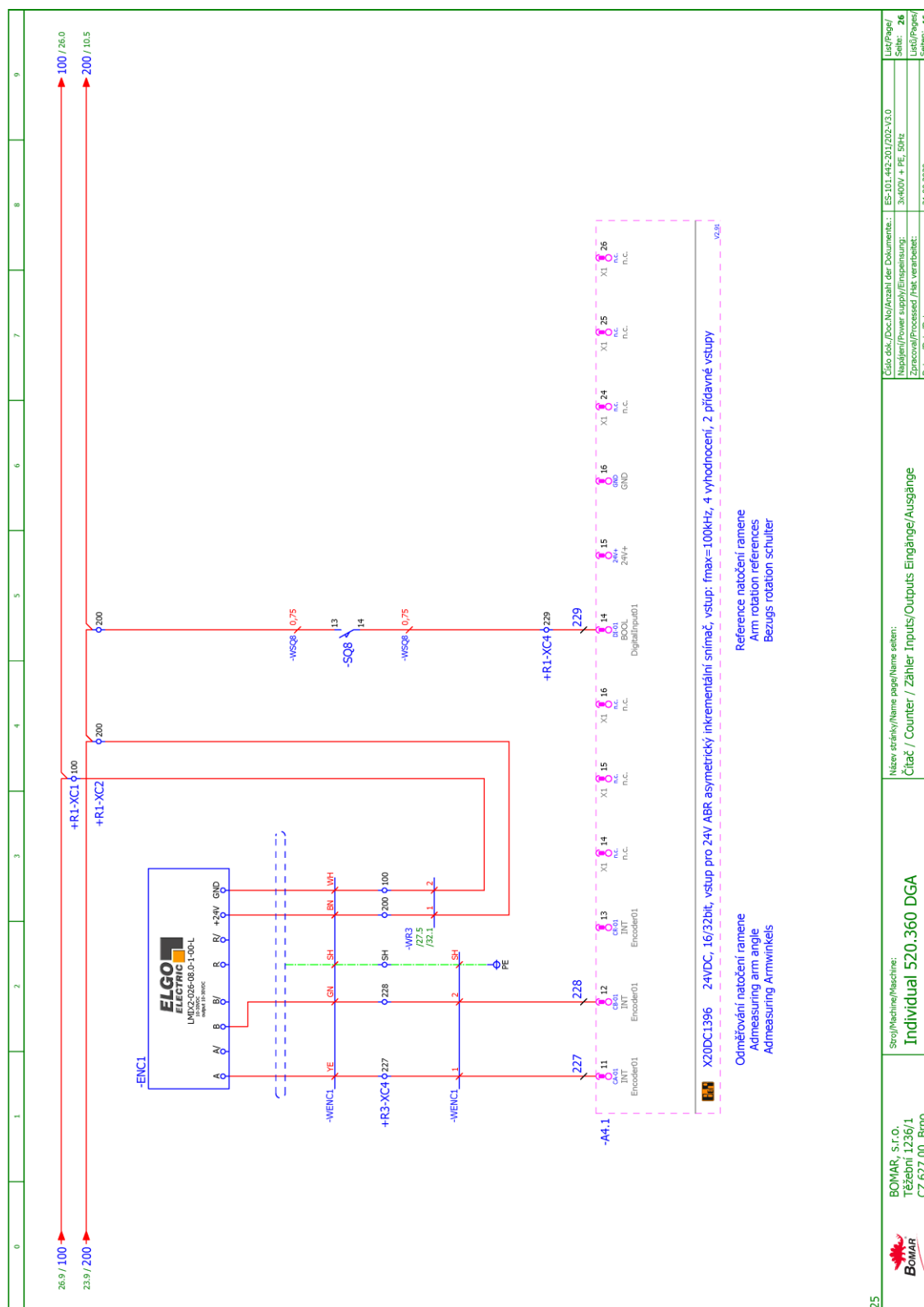




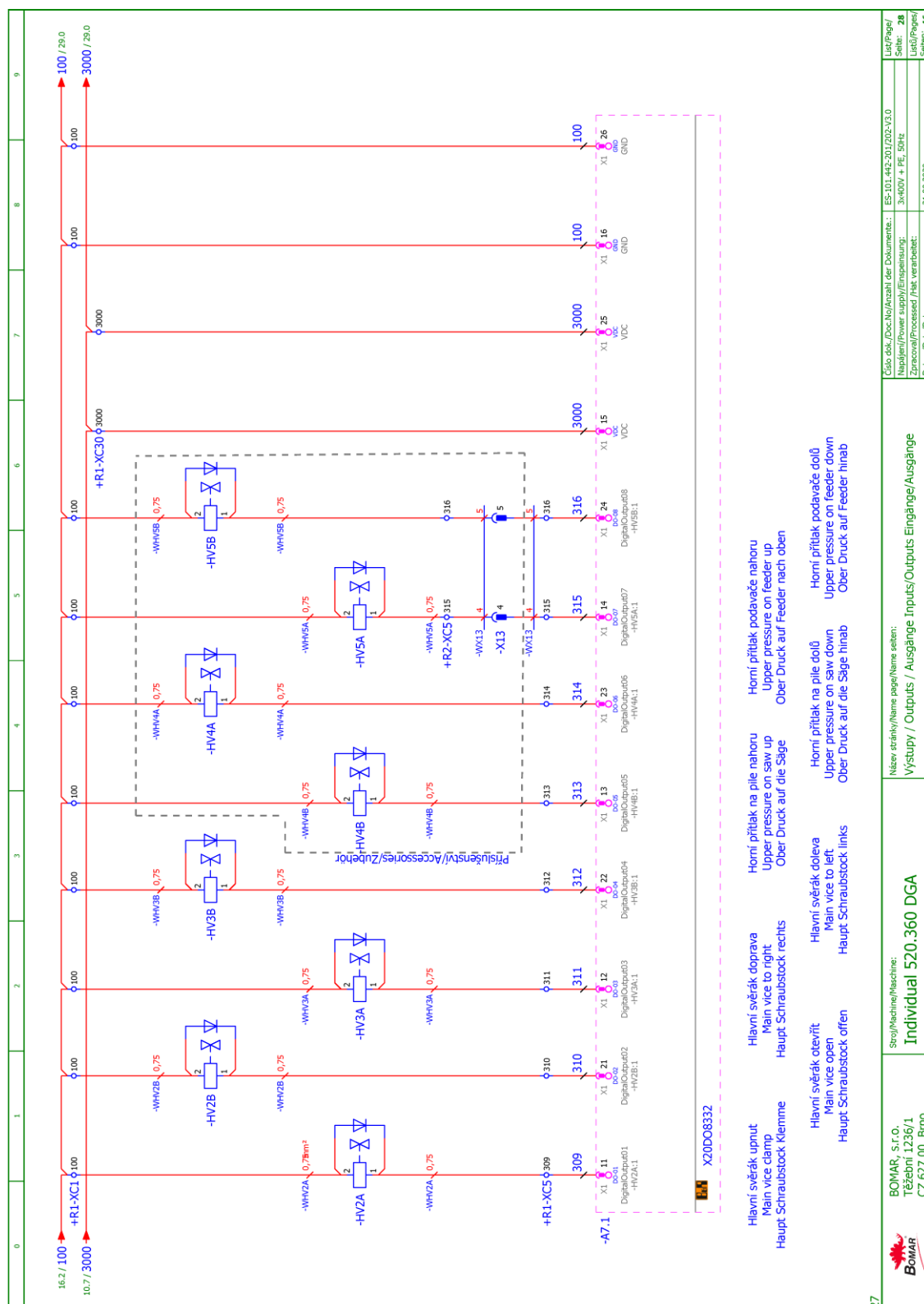




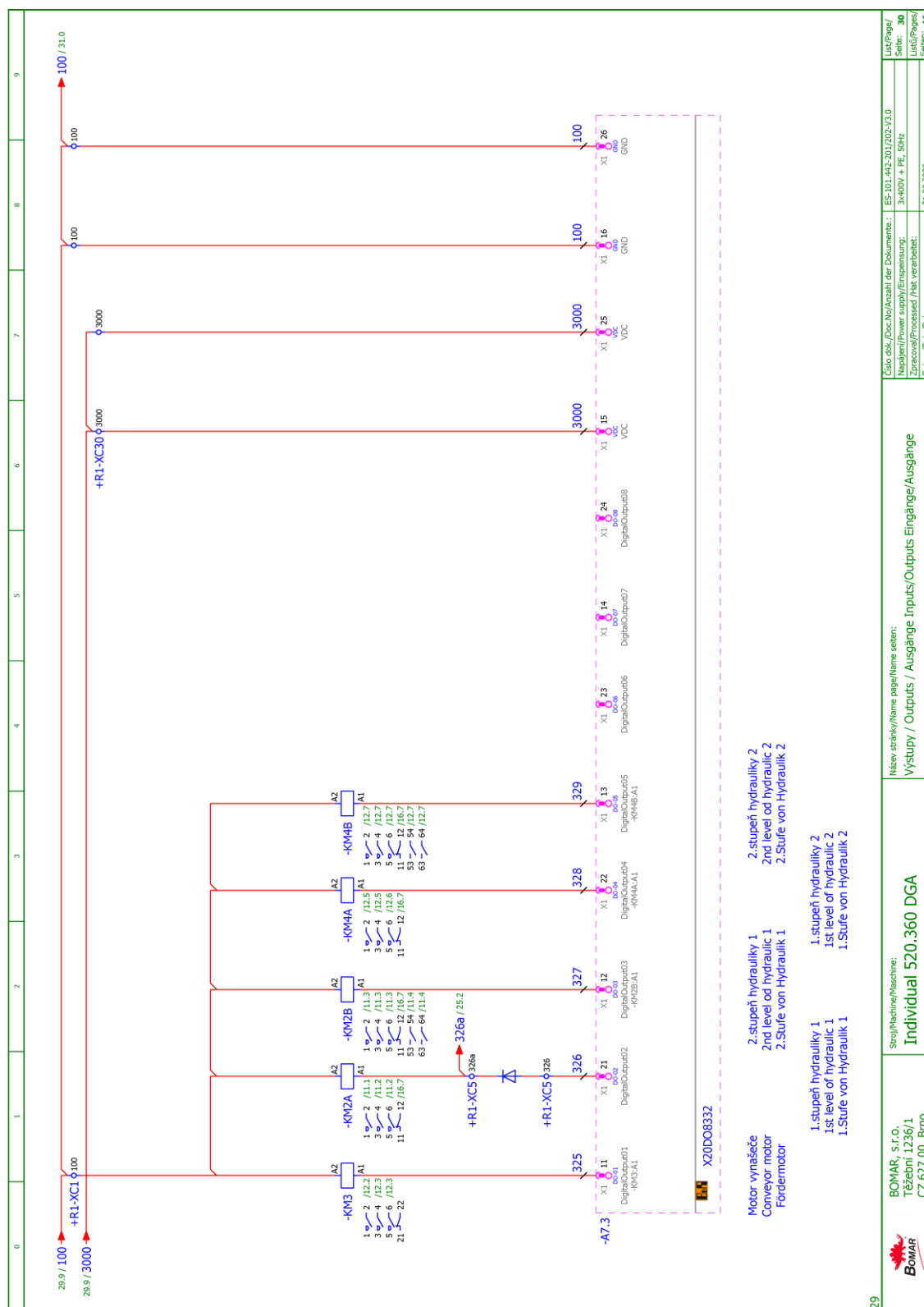




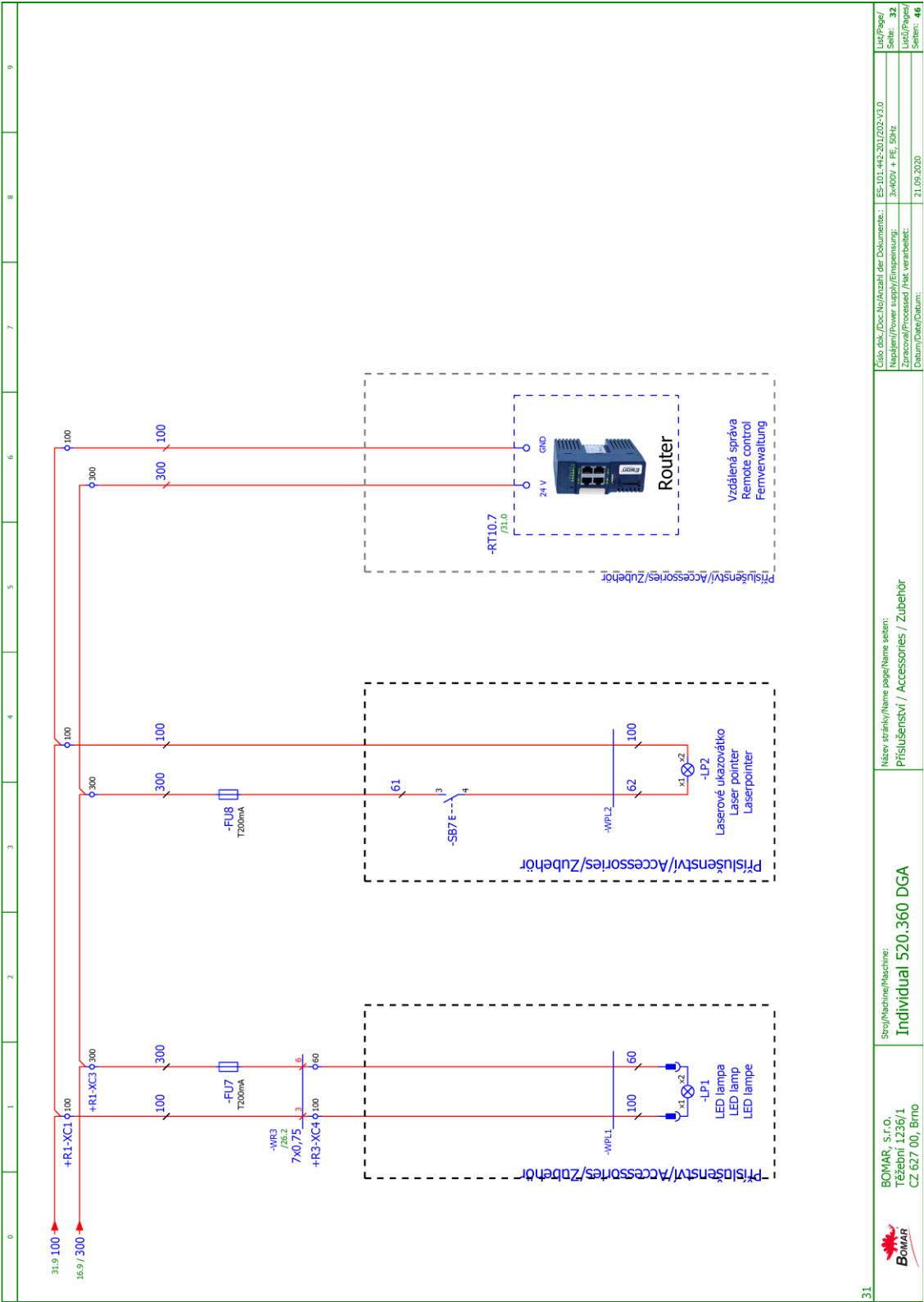




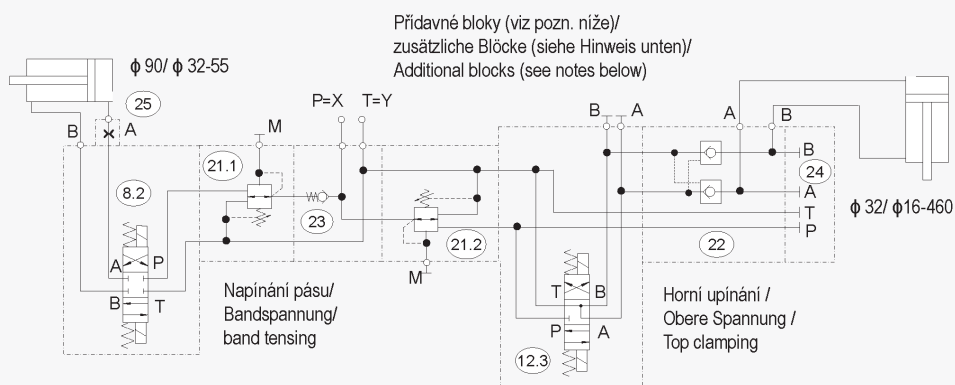








6.2.2. Pila/ Bansäge / Bandsaw - 2



Regulace tlaku svěráku (19+20) - volitelné vybavení /Spandruckregulierung (19+20) - Optionalzubehör/
Vice pressure regulation (19+20) optional accessories

Přídavné okruhy (volitelné vybavení) / Hilfsschaltung (Optionalzubehör)/ Auxiliary circuits (optional accessories),
Znázorněna přípojovací místa hadic X,Y/ Schlauchverbindungsstellen X, Y sind gezeigt/ Hose connection points X,X are shown

Blok/ Block 92.153.082 - Napínání pásu/ Sägebandspannung / Saw band tensing - dohromady/ zusammen/ together
Blok/ Block 92.153.087 - Horní upínání /Obere Spannung / Top clamping - samostatně/ selbständig/ independently

Pro el. síť/ für Strom Netz/ for electricity network 3x230V zaměnit el. motor za/ ersetzen Sie den Elektromotor für /
replace the electric motor with 92.001.139

U stroje velikosti 460 jsou 2 vodící regulační kostky (poz. 14) paralelně propojené a mají hydraulický přítlak do řezu.
Redukční ventil (19.2+20.2) je na ovládacím pultu, napojen pomocí přípojek X,Y.
/ Die Maschinengröße 460 sind zwei Führungs und Regelungswürfel (poz.14) parallel verbunden ist und einen Hydraulikschrittdruck haben .
Reduktionsventil (19.2+20.2) auf dem Bedienfeld ist, verbunden über die Anschlüsse X, Y /
The machine size 460 has 2 regulation and guiding cubes (pos.14) which are parallelly connected and which has hydraulic press to cut. T
hrottles valve (19.2+20.2) is placed at control panel and connected with connections X,Y.

Typ / Type / Type

Individual 360 DGH / DGANC, Individual 460 DGH/ DGANC

Hydraulický agregát / Hydroaggregat / Hydro aggregat

92.001.077 (FMW), S001-137-2, PPM-AC0, 48/0, 6kW/300/1500-PG1/2,5-TM20-CB03-FR

Neuvedené světlosti / Unerwähnt Lichtbreite / Unlisted inside diameters

JS6

Výstupní šroubení / Ausgangschraubung / Output screwing

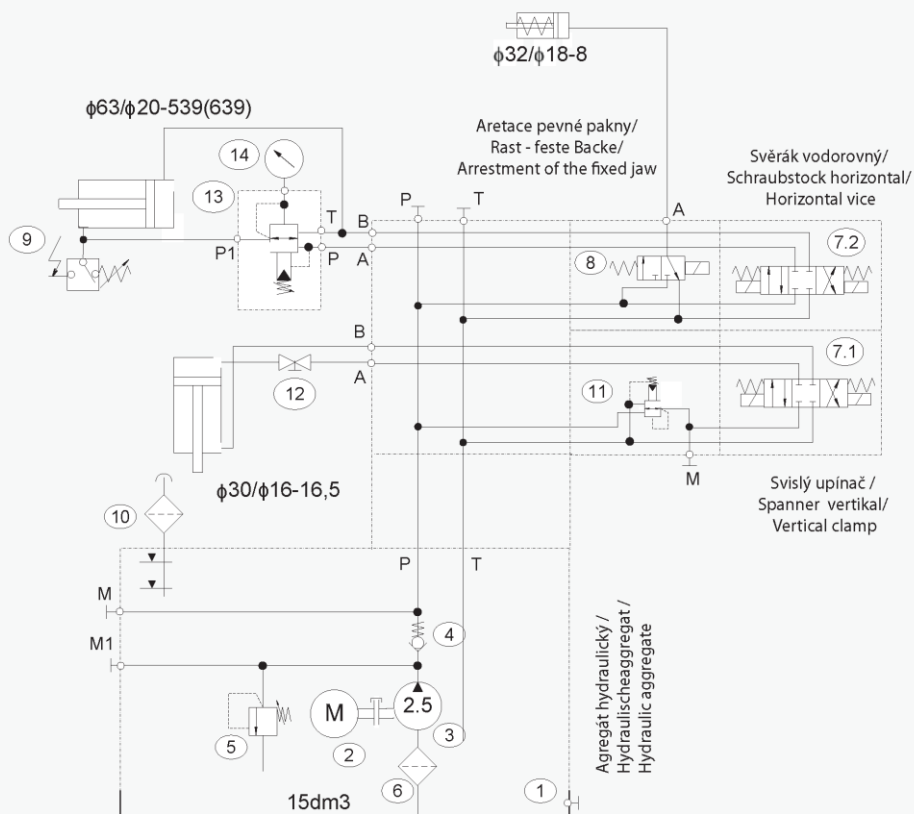
G1/4"

205.Y316-500
„NEW“ INDIVIDUAL 360 DGH / DGANC
„NEW“ INDIVIDUAL 460 DGH / DGANC
30.1.2015

Pmax	4,5 MPa
Q	3,3 / 6,6 dm ³ /min
n	1500 / 3000 rpm
P	0,48 / 0,6 kW

Poz.	Název položky/Bezeichnung/Item		Ks/menge/pcs.
1	Nádrž / Behälter / Tank	TM 13,5/S 20 dm ³	1
2	Elektromotor / Elektromotor / Electromotor	0,48/0,6 kW, 400/230 V/50 Hz, 2/4 poly/ poles	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	10A2, 5X053G 2,5/cm ³ /ot	1
4	Zpětný filtr / Filter / Filter	MPF0301AG1 + Vložka / Einlage / Inset MF0301P10	1
5	Nalévací zátka / Einfüllspund / Fill stopper	CPT-MD-FA/1''	1
6	Přepouštěcí ventil / Bypassventil / By pass valve	MO-020/32 4MPa	1
7	Jednosměrný ventil / Einwegventil / One-way valve	CV08-20-0-N-4 V205-007-1-01	1
8	Rozvaděč / Verteilungsventil / Distributor	DVE03-S01-B4-C24/20/T1-M1	2/1
9	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	PC08-30-0-N	1
10	Rozvaděč / Verteilungsventil / Distributor	DVE03-S12-B4-C24/20/T1-M1	1
11	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	DC08-40-0-N-25	1
12	Rozvaděč / Verteilungsventil / Distributor	DVE03-S04-Bx-C24/20/T1-M1	3/2
13	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	PC08-30-0-N	1
14	Ventil / Ventil / Valve	SV08-20-0-N-24EG	1
15	Tlakový spínač / Druckschalter / Pressure switch	0166415031059 20-50 bar SUCO	1
16	Škrťací ventil / Drosselventil / Throttle-valve	VS01-04/R2,5-OS 92.152.001	2
17	Kostka regulace / Regulationklotz / Regulation cube		2/1
18	Ventil pojistný / Sicherungsventil / Retaining valve	VPNH 1/4", s=0,8mm 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	Ø68 S, 0-6 MPa	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	Deska / Desk / Desk	PD1-RPEK N809_022_1	1/0
25	Tryska / Düse / Nozzle	Ø1mm	1/0

6.2.3. Podavač/Vorschub/ Feeder



Zdvih válce v závorkách platí pro stroje velikosti 460/ Die Zylinderhub in Klammern sind für Maschinentyp 460/
The stroke of the cylinder which is written in parentheses is valid for machines of the type 460 only

Regulátor (prvky 13+14) - volitelné vybavení /Regler (Elemente 13+14) - Optionalzubehör/
Regulator (elements 13+14) - optional accessory

Pro el. síť/ für Strom Netz/ for electricity network 3x230V zaměnit el. motor za/ ersetzen Sie den Elektromotor für /
replace the electric motor with 92.001.179

205.W316-000
PODAVAC (TIN7)
360 DGANC
460 DGANC
6.3.2012

Typ / Type / Type

Podavač/ Feeder/ Vorschub - Individual 360 DGANC, Individual 460 DGANC

Hydraulický agregát / Hydroaggregat / Hydro aggregate

92.001.072 (28486100) SMA03-25/SP.0-S11.0-H15LS.0-xxxx/02400

- MODIFIKACE TYPU/ MODIFICATION: 870-1394 / 731-0504

Neuvedené světlosti / Unerwähnt Lichtbreite / Unlisted inside diameters

JS6

Výstupní šroubení / Ausgangsschraubung / Output screwing

G1/4"

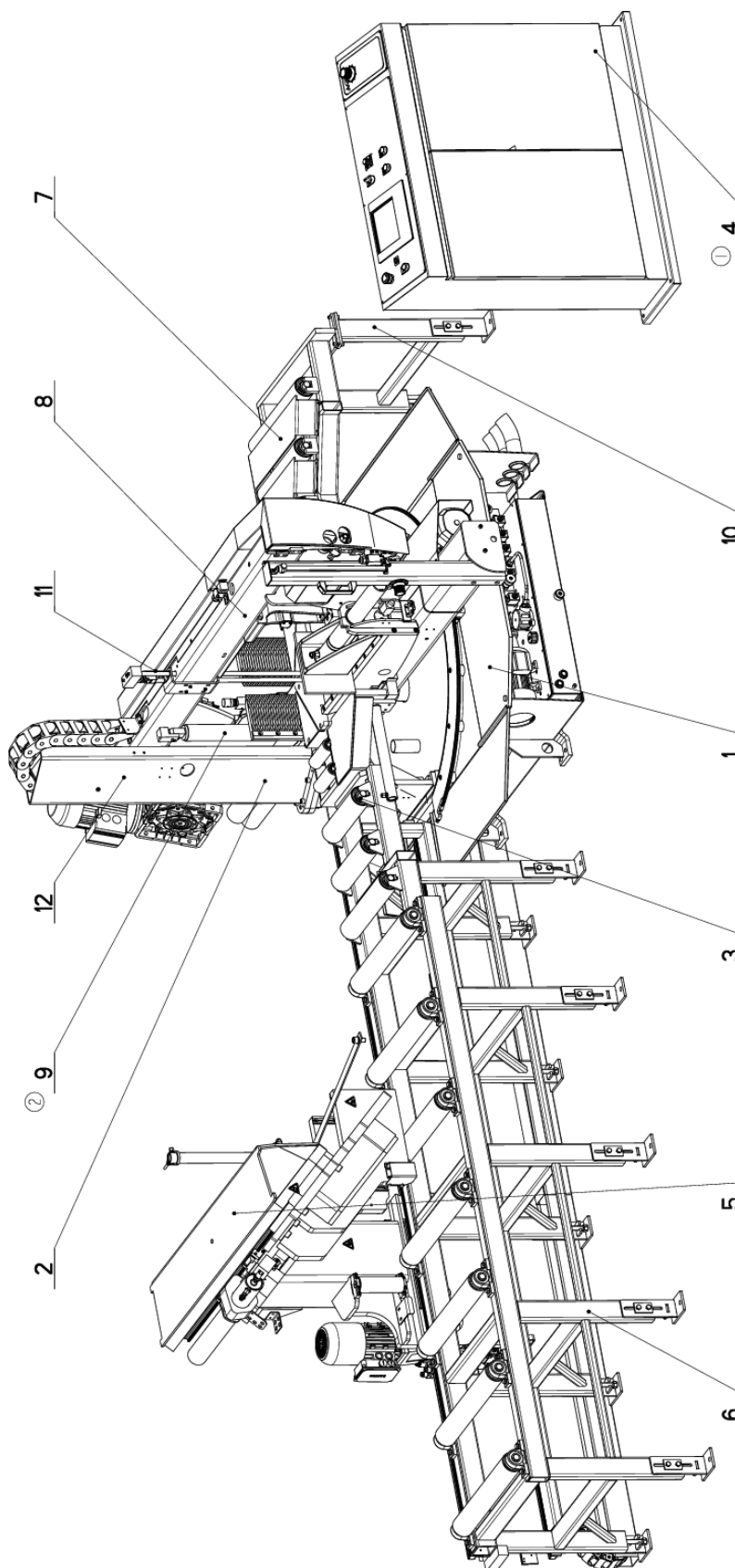
Pmax	5 MPa
Q	6,6 / 3,3 dm³/min
n	2800 / 1400 rpm
P	0,55 / 0,37 kW

Poz.	Název položky		ks
Pos.	Bezeichnung		Menge
Pos.	Item		Pcs.
1	Nádrž / Behälter / Tank	N17 TM, 307507891002 (750/7891) 15 dm ³	1
2	Elektromotor / Elektromotor / Electromotor	TM80-2/4S, 0,55/0,37 kW, 400/230 V/50 Hz	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	P2-2,5L.66017 2,5 cm ³ /rpm	1
4	Jednosměrný ventil / Einwegventil / One-way valve	VJ01-06/SG-1	1
5	Přepouštěcí ventil / Bypassventil / By pass valve	VPP2-04/S-6 5 MPa	1
6	Sací filtr / Filter / Suction filter	2SF56/48-0,063 63 µm	1
7	Rozvaděč / Verteilungsventil / Distributor	RPE3-043Z11/02400E1K1 92.101.010	2
8	Rozvaděč / Verteilungsventil / Distributor	SD2E-A3/S2D25	1
9	Tlakový spínač / Druckschalter / Pressure switch	0166415031059 20–50 bar	2
10	Nalévací zátka / Einfüllspund / Fill stopper	L1.0406-51	1
11	Redukční ventil / Reduktionsventil / Control valve	VRP-04-PS/6,3 92.154.003	1
12	Kulový ventil / Kugelventil / Globe valve	99.260.004	1
13	Redukční ventil / Reduktionsventil / Control valve	VRN2-06/S-6R 92.154.008	1/0
14	Manometr / Manometer / Manometer	Ø68 S, 0–6 MPa Glycerin	1/0

7. **Výkresy sestav pro objednání náhradních dílů / Zeichnungen für Bestellung der Ersatzteile / Drawing assemblies for spare parts order Individual 520.360 DGANC LS 2300**

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. Individual 520.360 DGANC), výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Individual 520.360 DGANC), 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 DGANC), serial number (for example 125, see cover page) and year of construction (for example 1999).

7.1. Individual 520.360 DGANC LS 2300



 NAZEV SESTAVY PILA PASOVA	CISLO SESTAVY 201.W300-100	STROJ IN360DGA
	Konstruoval: HLADIL	
	Datum: 03. 09. 2019	
	Meritko: 7:100	

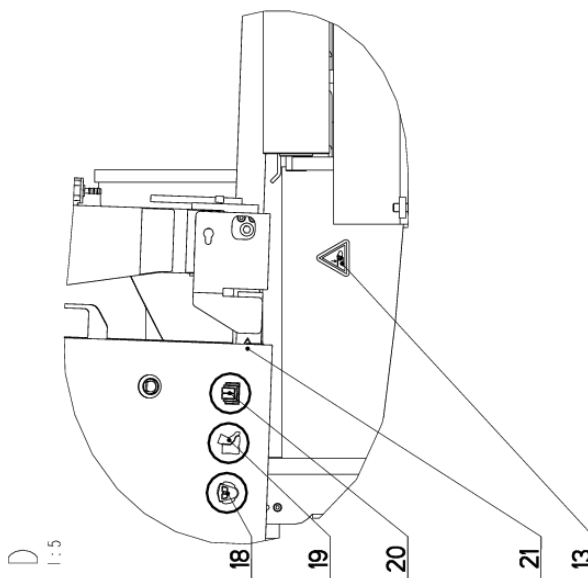
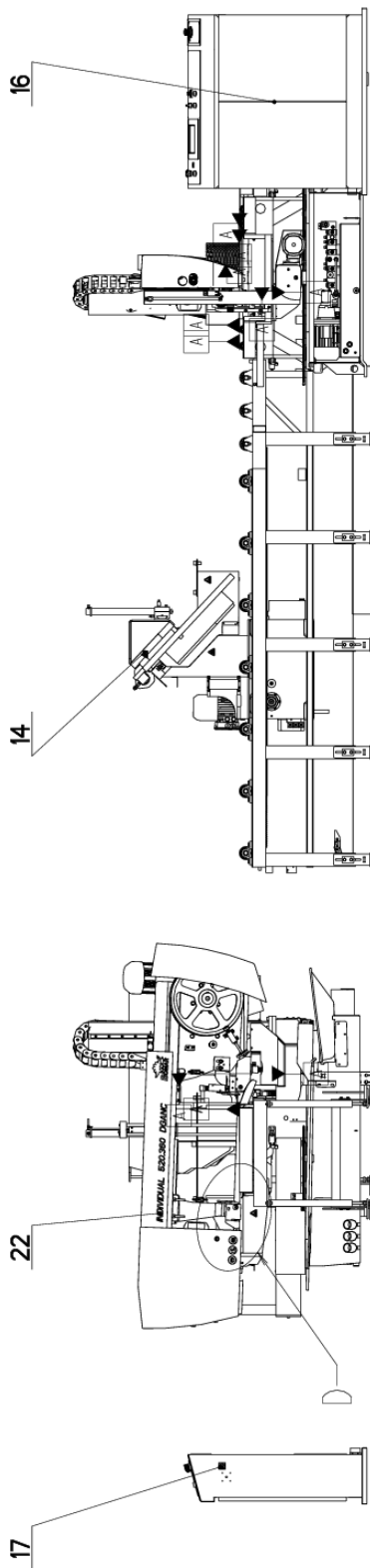
7.2. Kusovník / Stückliste / Piece list – Individual 520.360 DGANC LS 2300

Císlo Sestavy 201.W300-100		Ver. 2	Název sestavy PILA PASOVA/BAND SAW/BANDSÄGE	
Poz.	Objednací číslo	Ver.	Název položky	Ks
1	201.V301-300	4	PODSTAVEC / BASE / UNTERSATZ	1
2	201.V302-300	4	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE	1
3	201.V309-300	3	SVERAK / VICE / SCHRAUBSTOCK	1
4	201.W330-400	1	ROZVADEC / DISTRIBUTOR / VERTEILER	1
5	201.W350-100	11	PODAVAC / FEEDER / VORSCHUB	1
6	201.W360-100	4	TRAT / TRACK / BAHN	1
7	201.W380-200	0	DIL PROPOJOVACI / CONNECTING PART / VERBINDUNGSTEIL	1
8	201.Y304-100	10	RAMENO / SHOULDER / SÄGERAHMEN	1
9	201.Y307-610	2	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLINDER	1
10	203.X105-100	3	NOHA DOPRAVNÍKU / FEEDER LEG / STÄNDER DES FÖRDERERS	1
11	221.V314-350	4	DORAZ / STOP PIECE / ANSCHLAG	1
12	30.W399-101	3	STITEK TYPOVY / MACHINE LABEL / MASCHINE SCHILD	1
13	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	3
14	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER	2
15	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER	2
16	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER	1
17	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER	1
18	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER	1
19	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER	1
20	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER	1
21	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER	1
22	99.901.033	0	SAMOLEPKA / STICKER / AUFKLEBER	1
			IN360 GANC	1

1. ROZVEDEC 201.W330-150 NAHRAZEN ROZVADECEM 201.W330-400; 232/zm.276 HLADIL 3.12.2015
2. ZRUSEN VALEC 201.Y307-010 A NAHRAZEN VALCEM 201.Y307-610. 236/ZM364 03.09.2019 BENDA

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

7.3. Individual 520.360 DGANC LS 2300



 NAZEV SESTAVY PILA PASOVA	CISLO SESTAVY 201.W300-100	STROJ IN360DGA
	Konstruoval: HLADIL	
	Datum: 03. 09. 2019	
	Meritko: 1:25	

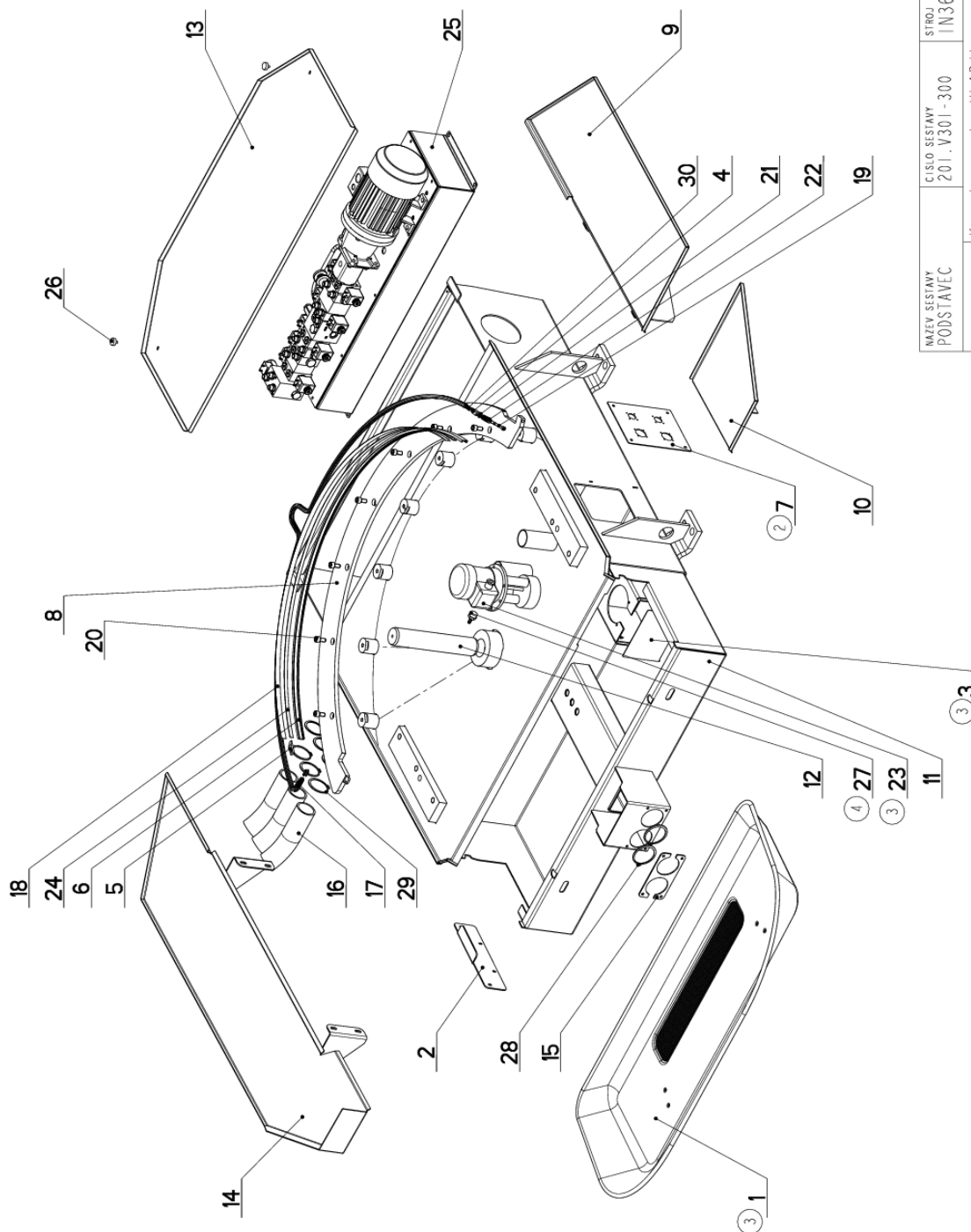
7.4. Kusovník / Stückliste / Piece list – Individual 520.360 DGANC LS 2300

Císlo Sestavy 201.W300-100	Ver. 2	Název sestavy PILA PASOVA/BAND SAW/BANDSÄGE			
Poz	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	201.W301-300	4	PODSTAVEC / BASE / UNTERSATZ		1
2	201.W302-300	4	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE		1
3	201.W309-300	3	SVERAK / VICE / SCHRAUBSTOCK		1
4	201.W330-400	1	ROZVADEC / DISTRIBUTOR / VERTEILER		1
5	201.W350-100	11	PODAVAC / FEEDER / VORSCHUB		1
6	201.W360-100	4	TRAT / TRACK / BAHN		1
7	201.W380-200	0	DIL PROPOJOVACI / CONNECTING PART / VERBINDUNGSTEIL		1
8	201.W304-100	10	RAMENO / SHOULDER / SÄGERAHMEN		1
9	201.W307-610	2	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYHLINDER		1
10	203.X105-100	3	NOHA DOPRAVNÍKU / FEEDER LEG / STÄNDER DES FÖRDERERS		1
11	221.W314-350	4	DORAZ / STOP PIECE / ANSCHLAG		1
12	30.W399-101	3	STITEK TYPOVY / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	1
13	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP-STLACENI	3
14	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2
15	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		2
16	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		1
17	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		1
18	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		1
19	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		1
20	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		1
21	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		1
22	99.901.033	0	SAMOLEPKA / STICKER / AUFKLEBER	IN360 GANC	1

- ROZVEDEC 201.W330-150 NAHRAZEN ROZVADECEM 201.W330-400; 232/zm.276 HLADIL 3.12.2015
- ZRUSEN VALEC 201.Y307-010 A NAHRAZEN VALCEM 201.Y307-610. 236/ZM364 03.09.2019 BENDA

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

7.5. Podstavec / Untersatz / Base



NAZEV SESTAVY PODSTAVEC	CÍSLO SESTAVY 201.V301-300	STROJ IN360DGA
Konstruoval: HLADIL		
Datum: 14. 12. 2016		
Měřítko: 1:10		

7.6. Kusovník / Stückliste / Piece list – Podstavec / Untersatz / Base

Císlo Sestavy 201.V301-300		Ver. 5	Název sestavy PODSTAVEC/BASE/UNTERSATZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.M201-020 (3)	0	VANA / TANK / WANNE		1
2	30.D314-130 (1)	1	KRYT / COVER / ABDECKUNG	P 3x104	1
3	30.M201-015 (3)	0	PLECH / PLATE / BLECH	P 1,5x119	1
4	30.V301-021	0	KOSTKA NAPINANI / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL	HR 10x10	1
5	30.V301-127	0	DORAZ / STOP PIECE / ANSCHLAG	HR 12x5	1
6	30.V301-131	1	LISTA / TRIM / LEISTE	HR 18x6	1
7	30.V301-301 (2)	1	VÍKO / COVER / DECKEL	P 2x175	1
8	30.V301-315	1	SEGMENT / SEGMENT / SEGMENT	P 12x567	1
9	30.V314-117	1	KRYT / COVER / ABDECKUNG		1
10	30.V314-118	1	KRYT / COVER / ABDECKUNG		1
11	30.V301-301	9	PODSTAVEC / BASE / UNTERSATZ		1
12	30.V301-308	0	CEP / LUG / BOLZEN	ø 50 h6	1
13	30.V301-309	0	KRYT / COVER / ABDECKUNG	P 1,5x483	1
14	30.V314-118	2	OKAP / GUTTER CHANNEL / BLECH		1
15	30.V502-163	1	UCHYTKA / CLIP / HALTER	P 3x80	1
16	41.001.006	0	HADICE / HOSE / SCHLAUCH	55/46	3
17	49.200.042	0	RETÍZEK / CHAIN / KETTE	Ø81 146cl.	1
18	55.800.009	0	PLECH / PLATE / BLECH	P 0,3 - 15	1
19	90.001.25.026	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x65	1
20	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	7
21	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE - M6	1
22	90.350.02.001	0	TALÍROVA PRUŽINA / DISC SPRING / TELLERFEDER	12,5x6,2x0,5x0,85	10
23	91.020.032 (3)	0	CERPADO CHLAZENÍ / COOLING PUMP / KÜHLMITTELPUMPE	230/400V	1
24	91.271.002	0	PASKA MAGNETICKÁ / MAGNETIC TAPE / MAGNETBAND	ELGO MB20,50	1
25	92.001.077	0	AGREGAT HYDRAULICKÝ / HYDRAULIC GENERATOR / HYDRAULIKAGGREGAT		1
26	94.007.001	0	SROUB / BOLT / SCHRAUBE	M5x10	2
27	94.202.020 (4)	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	1/2"-6	1
28	95.800.021	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 62	2
29	95.800.034	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 55	6
30	99.270.046	0	CLANEK SPOJ.-RETEZ / JOINT CUT ELEMENT / KETTENVERBINDUNGSGLIED	Ø81	2

1. PRID. KONZOLA 30.7202-199. 223/ZM297 11.10.2012 SLEZACKOVA

2. ZRUS. VANA 30.V301-310 A NAHR. 30.V301-320, ZRUS. ZATKA 94.101.039 A NAHR. VIKEM 30.V301-301. 239/ZM105 29.3.2013 SLEZACKOVA

3. ZRUS. PLECH 30.V301-118, ZRUS. CERPADO 91.020.015 A NAHR. 91.020.032, PRID. REDUKCE 94.202.021, ZRUS. VANA 30.V301-320 A NAHR. 201.M201.020.

PRID. PLECH 30.M201-015, 024, 213/ZM073 14.3.2016 SLEZACKOVA

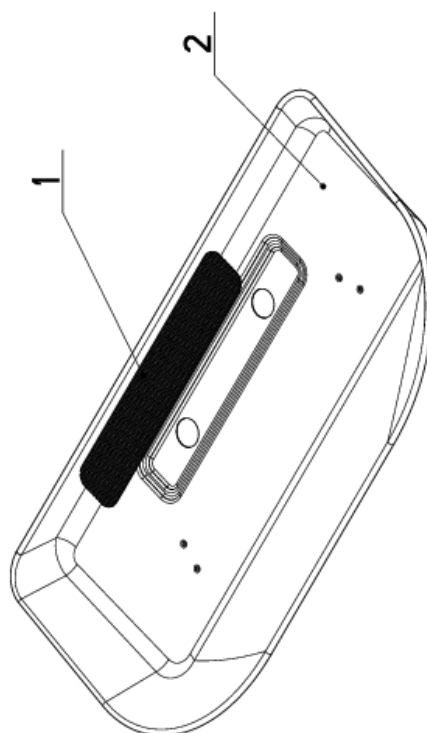
4. ZRUS. REDUKCE 94.202.021 A NAHR. 94.202.020. 024/ZM200 12.7.2016 SLEZACKOVA

5. ZRUS. KONZOLA 30.7202-199. 280/ZM389 17.9.2019 SZABARI

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

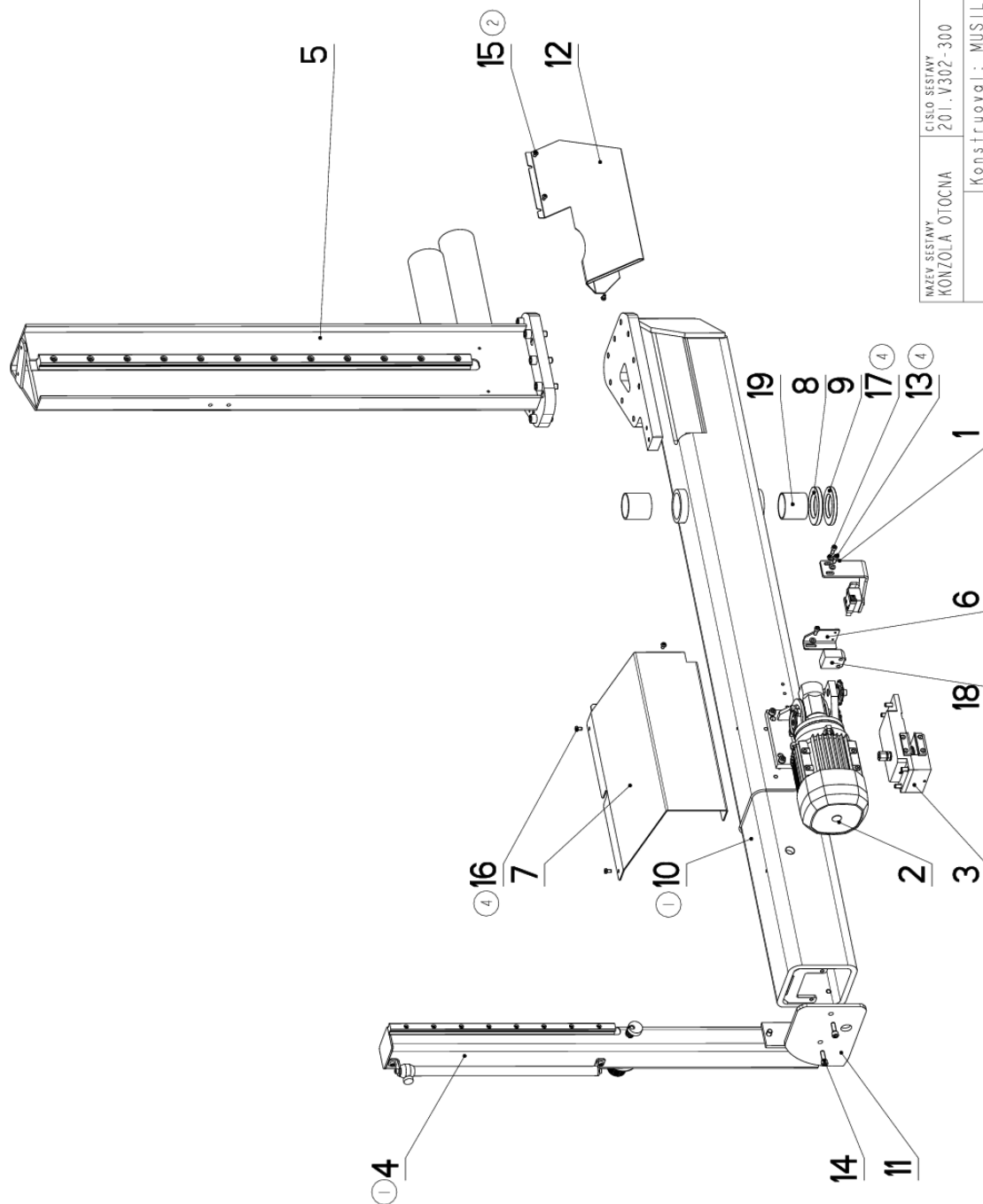
7.7. Vana / Tank / Wanne

Cislo Sestavy 201.M201-020		Ver. 0	Název sestavy VANA / TANK / WANNE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr
1	30.ER251-304	0	SITO / SIEVE / GITTERWERK	Plx95
2	30.M201-021	0	VANA / TANK / WANNE	P 0-8
				Ks
				I
				I



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

7.8. Konzola otočná / Drehkonsole / Turnable consol



NAZEV SESTAVY KONZOLA OTOCNA	CISLO SESTAVY 201.V302-300	STROJ IN360DGA
Konstruoval: MUSIL		
Datum: 22. 10. 2018		
Meritko: 13:100		

7.9. Kusovník / Stückliste / Piece list – Konzola otočná / Drehkonsole / Turnable consol

Císlo Sestavy 201.V302-300		Ver. 4	Název sestavy KONZOLA OTOČNÁ/TURNABLE CONSOL/DREHKONSOLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.V302-130	0	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR		1
2	201.V302-180	0	POHON / DRIVE / ANTRIEB		1
3	201.V302-250	1	BRZDA / BRAKE / BREMSE		1
4	201.V302-150 (1)	4	SLOUP / POLE / SAULE	SESTAVA	1
5	201.V302-260	2	SLOUP / POLE / SAULE	SESTAVA	1
6	30.V302-021	0	DRŽÁK / HOLDER / HALTER	P 3x59	1
7	30.V302-311	0	KRYT MOTORU / MOTOR COVER / MOTORABDECKUNG		1
8	30.V302-006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	d 80	1
9	30.V302-007	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	d 80	1
10	30.V302-201 (1)	6	KONZOLA OTOČNÁ / TURNABLE CONSOL / DREHKONSOLE	SVARENO	1
11	30.V302-303	1	VÍKO / COVER / DECKEL	P 8x150	1
12	30.V314-401	2	SKLUZ / SLIDE / RUTSCH	P 1x238	1
13	90.001.25.017 (4)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x16	3
14	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	2
15	90.013.27.003 (2)	0	SROUB / BOLT / SCHRAUBE	M5x10	3
16	90.013.27.007 (4)	0	SROUB PULKULATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M6x10	3
17	90.150.50.004 (4)	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 6,4	3
18	91.173.016	0	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	KONCAK	1
19	95.720.002	0	POUZDRO / SLEEVE / BÜCHSE	50x50x55	2

1.ZM.DELKY KONZOLY 30.V302-201(1789 NA 1812),ZM.SIRKY SLOUPU 30.V302-151(40 NA 60). 247.252/ZM311 8.11.2012 SLEZACKOVA

2.PRIDAN 3xSROUB M5x10 (90.013.027.003). 003/ZM160 10.3.2015 SLEZACKOVA

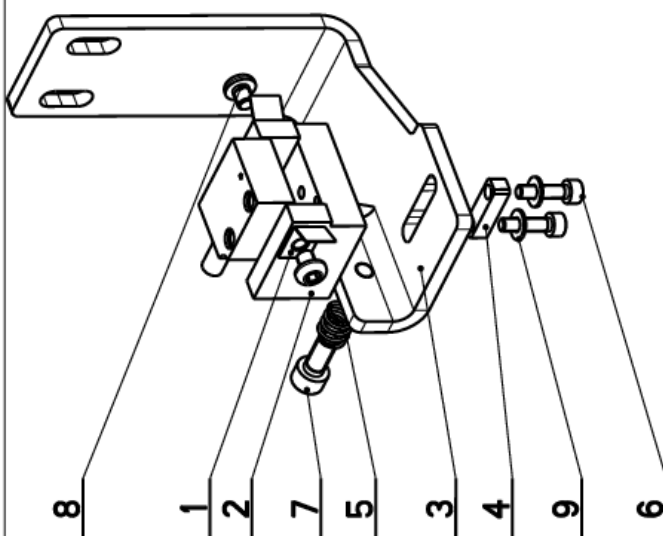
3.ZRUSEN 2xKOLIK 6x16(90.300.0Z.014. 335/ZM032 30.1.2017 SLEZACKOVA

4.PRID. SROUBY 3x90.001.25.017 A 3x90.013.27.007, PRID. 3xPODLOŽKA 90.150.50.004. 233/ZM383 22.10.2018 SZABARI

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

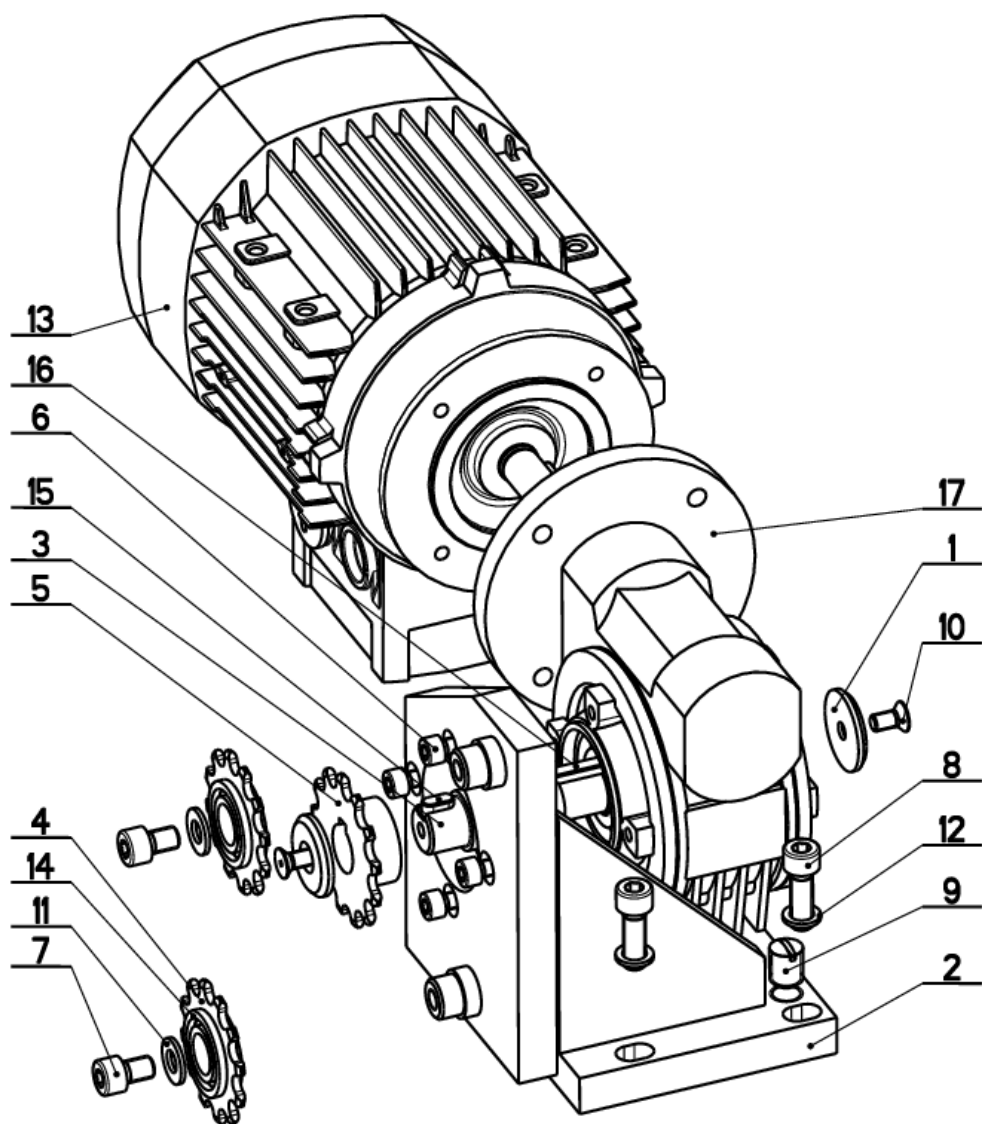
7.10. Snímací magnet / Magnetic sensor / Magnetischer Sensor

Císlo Sestavy 201.V302-130		Ver. 0	Název sestavy SNIMAC MAGNET. /MAGNETIC SENSOR/MAGNETSENSOR		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0.3 -11	2
2	30.V302-131	0	DRŽAK / HOLDER / HALTER	HR 25x35	1
3	30.V302-132	0	DRŽAK / HOLDER / HALTER	P5 x 62	1
4	30.V302-133	0	PERO / SPRING / FEDER	HR 10x6	1
5	31.1605-121	0	PRUŽINA / SPRING / FEDER	1x9.5x12x4.0(0.8x9x10x6)	1
6	90.001.25.004	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4x16	2
7	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	1
8	90.013.27.002	0	SROUB PULKULATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M5x6	2
9	90.150.50.002	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 4,3	2
10	92.270.018	0	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	ELGO	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

7.11. Pohon/ Drive/ Antrieb



NAZEV SESTAVY POHON	CISLO SESTAVY 201.V302-180	STROJ IN360
	Konstruoval: MUSIL	
	Datum: 06. 12.2010	
	Meritko: 1:2	

7.12. Kusovník / Stückliste / Piece list – Pohon/ Drive/ Antrieb

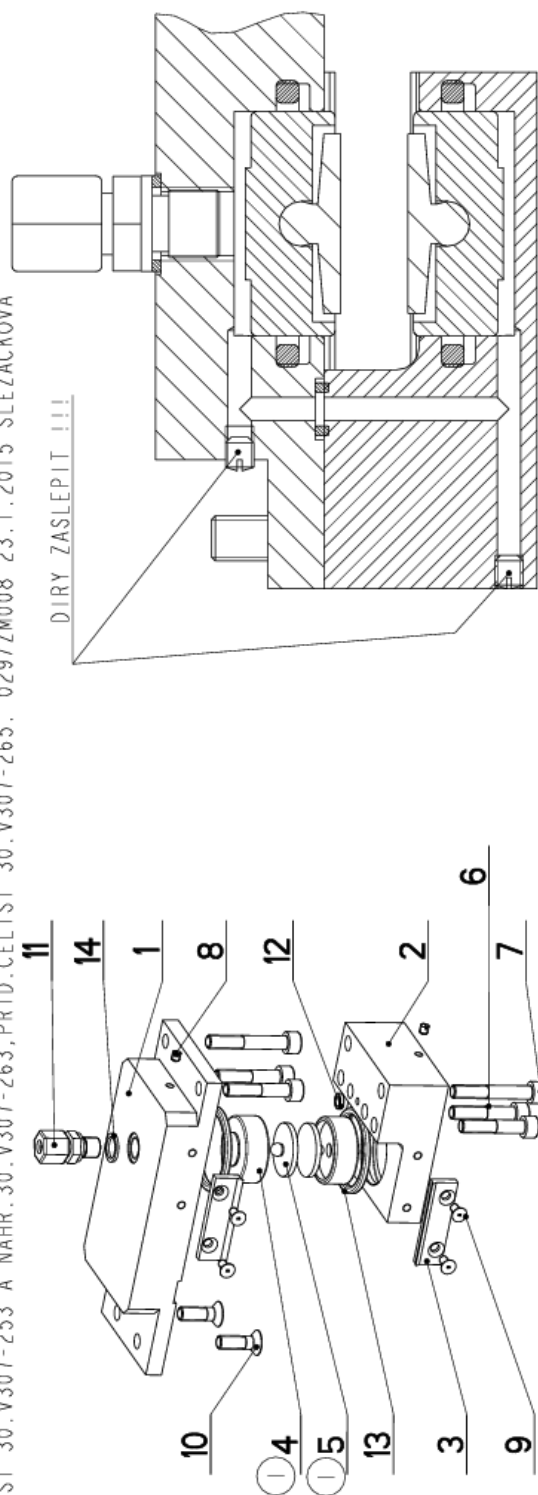
Cislo Sestavy 201.V302-180		Ver. 0	Název sestavy POHON/DRIVE /ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1514-503	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 30	2
2	30.V302-081	0	KONZOLA / CONSOLE / KONSOLE		1
3	30.V302-083	0	HRDEL / SHAFT / WELLE	d 22	1
4	30.V302-085	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	Ø81-122 DISK	2
5	30.V302-086	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	Ø81-132 NABOJ	1
6	90.001.25.017	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X16	4
7	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X12	2
8	90.001.25.033	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	4
9	90.002.20.017	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12X16	2
10	90.011.27.005	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6X12	2
11	90.150.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 8,4	2
12	90.163.00.002	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 8	4
13	91.001.106	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	0,37 kW	1
14	95.001.006	0	LOŽISKO / BEARING / LAGER	6002 2RS	2
15	95.810.004	0	PERO TESNÉ / SPRING / FEDER	PERO 6X6X12	1
16	95.810.034	0	PERO TESNÉ / SPRING / FEDER	PERO 6X6X50	1
17	99.001.119	0	PREVODOVKA / TRANSMISSION / GETRIEBE	VF44 P	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

7.13. Brzda / Bremse / Brake

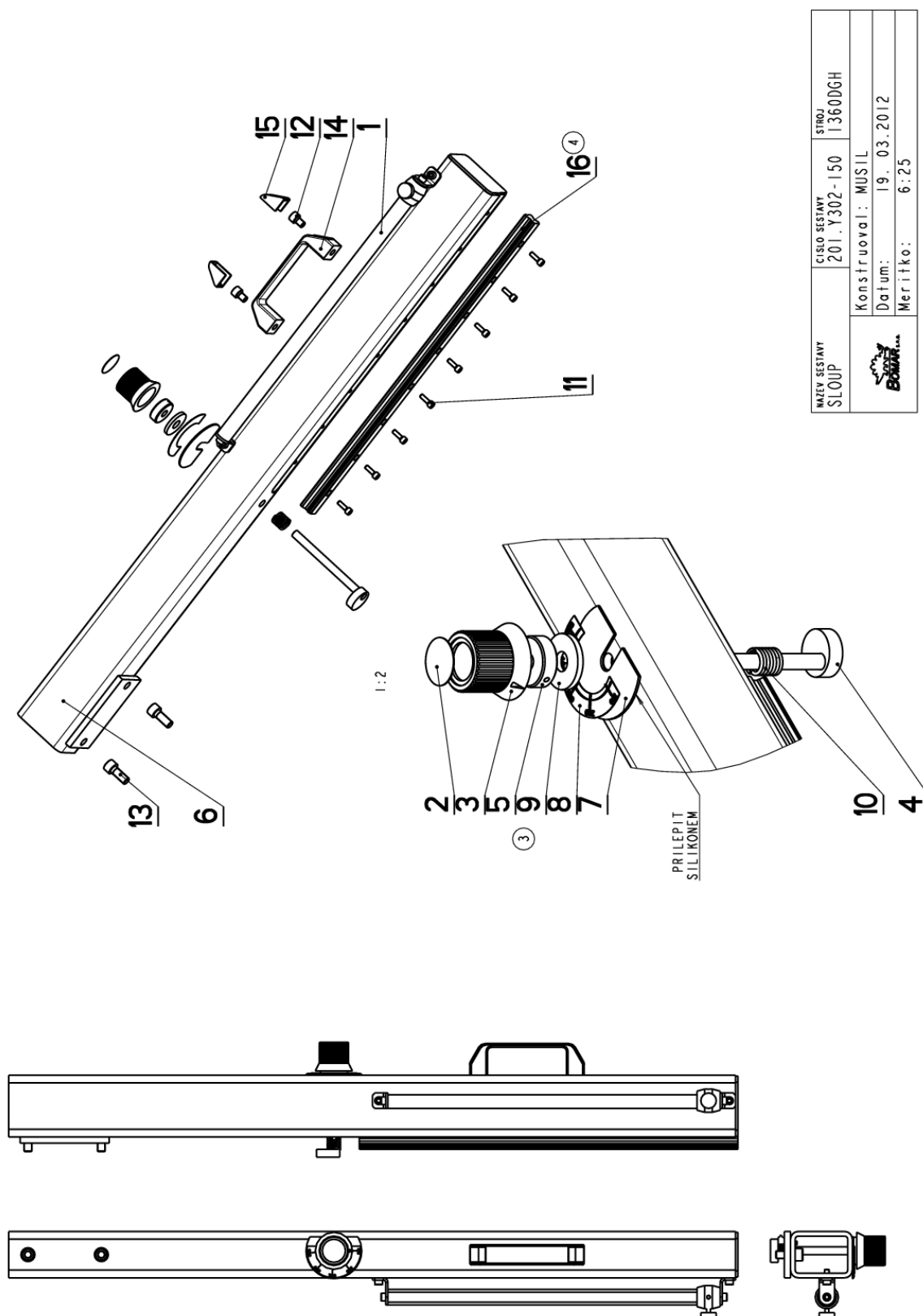
Cislo Sestavy 201.V307-250		Ver. I		Nazev sestavy BRZDA/BRAKE/BREMSE	
Poz.	Objednací číslo	Ver.	Nazev položky	Rozměr	Ks
1	30.V307-251	I	DESKA / BOARD / PLATTE	HR 80x30	1
2	30.V307-252	I	CELIST POHYBLIVÁ / MOVING JAW / BEWEGLICHE BACKE	HR 80x40	1
3	30.V307-254	0	STERAC / WIPER / ABSTREIFER	BA18	4
4	30.V307-263(1)	0	PIST / PISTON / KOLBEN	d 40	2
5	30.V307-265(1)	0	CELIST / JAW / BACKE	d 32	2
6	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x40	4
7	90.001.25.038	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x50	2
8	90.002.20.003	0	SROUB STAVEČI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x6	2
9	90.011.27.003	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKTSCHRAUBE	SROUB M5x10	8
10	90.011.27.016	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKTSCHRAUBE	SROUB M8x25	2
11	92.002.101	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG		1
12	96.002.003	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	6x2	1
13	96.020.005	0	KROUZEK TESNICÍ / SEAL RING / DICHTRING	39.2x5.33	2
14	96.082.002	0	TESNENÍ / SEALING / DICHUNG	KROUZEK CU 13/17	1

I.ZRUS.PIST 30.V307-253 A NAHR.30.V307-263,PRID.CELIST 30.V307-265. 029/ZM008 23.1.2015 SLEZACKOVA



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

7.14. Sloup / Säule / Pillar 1



7.15. Kusovník / Stückliste / Piece list –
Sloup / Säule / Pillar 1

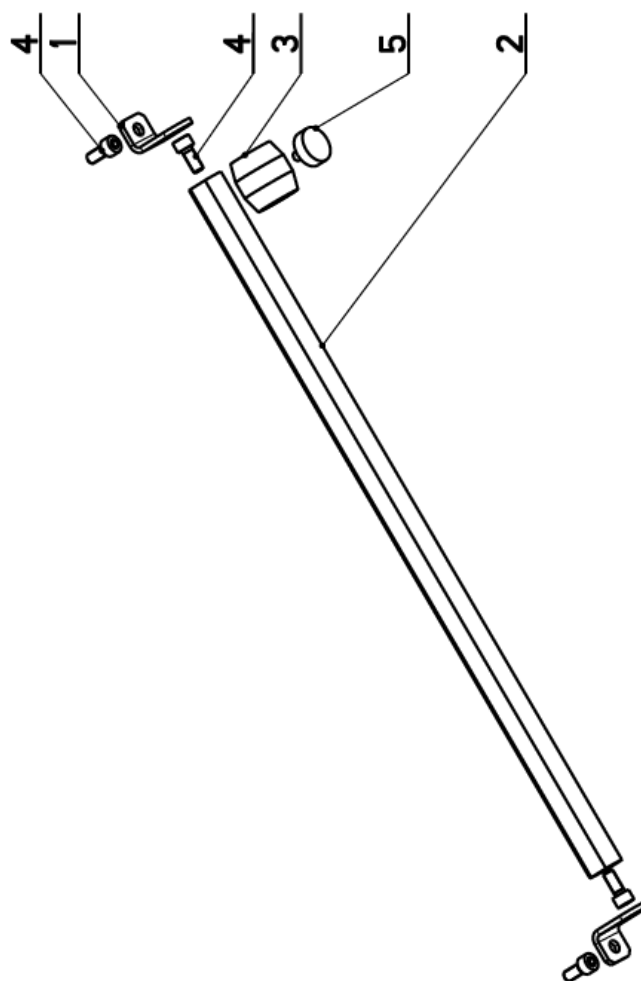
Císlo Sestavy 201.Y302-150		Ver. 4	Název sestavy SLOUP/POLE / SÄULE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.Y302-070	0	ODMEROVÁNÍ / MEASURING / GEHRUNGSMESSUNG	SESTAVA	1
2	30.6130-012	0	VÍKO / COVER / DECKEL	P 0.5x 30x30	1
3	30.6130-020	0	OVLADÁNÍ / CONTROLS / STEUERUNG	VYLISEK	1
4	30.Y302-055	1	OSA / AXLE / Achse	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	M5X16	8
12	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X12	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.VEDENIM 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

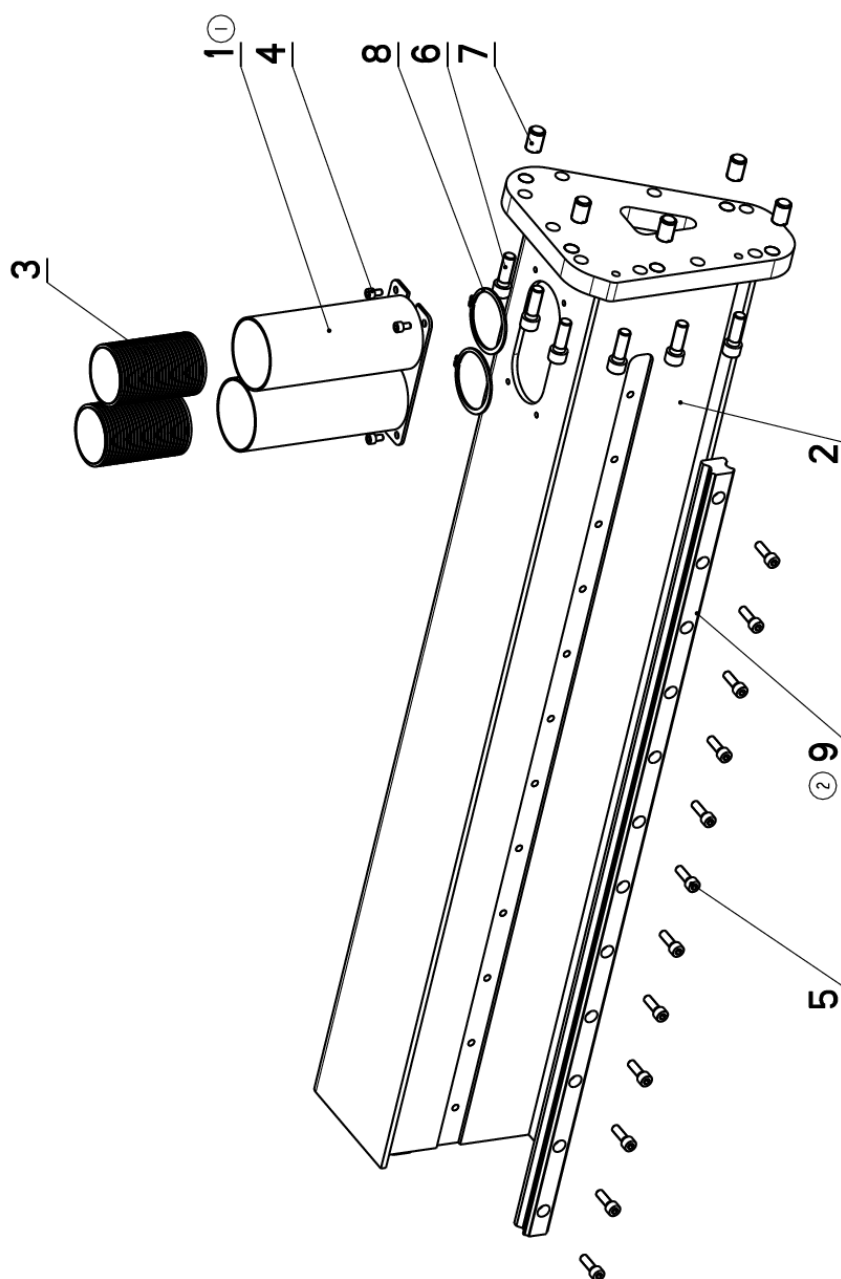
Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.16. Odměrování / Measuring / Gehrungsmessung

Číslo Sestavy 201.Y302-070		Ver. 0	Název sestavy ODMĚROVÁNÍ / MEASURING / GEHRUNGSMESSUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6114-023	0	DRŽÁK / HOLDER / HALTER	P 3x20	2
2	30.Y302-071	0	TYC / POLE / STANGE	d 20	1
3	30.2014-001	0	KLUZÁK / GLIDER / GLEITER		1
4	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	4
5	94.007.001	0	SROUB / BOLT / SCHRAUBE	M5x10	1



7.17. Sloup / Säule / Pillar 2



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

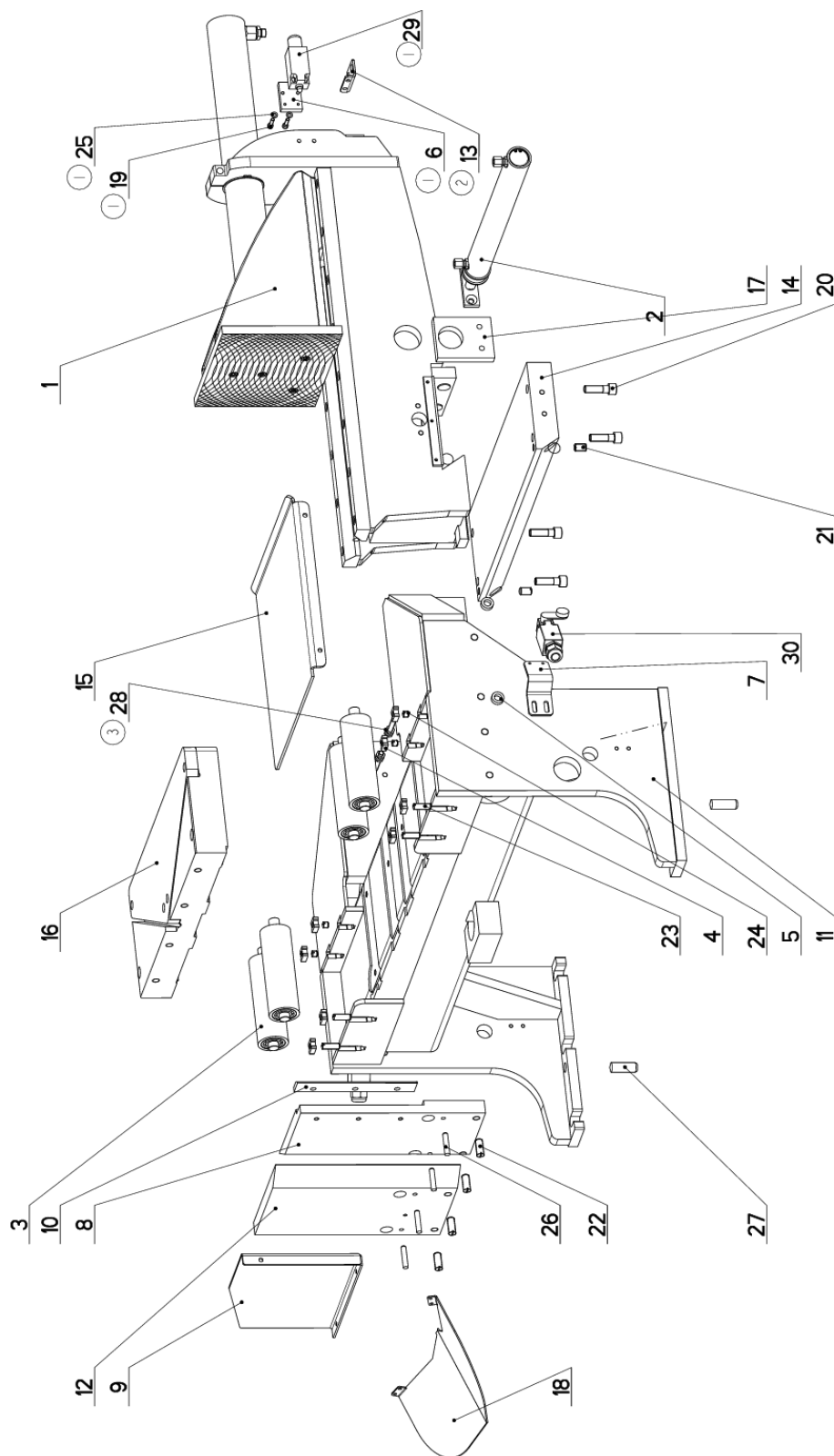
7.18. Kusovník / Stückliste / Piece list –
Sloup / Säule / Pillar 2

Císlo Sestavy 201.Y302-260		Ver. 2	Název sestavy SLOUP/POLE / SÄULE		
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 / SÄULE	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	POJISTNÝ 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

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

7.19. Svěrák / Schraubstock / Vice



NAZEV SESTAVY SVĚRÁK	ČÍSLO SESTAVY 201.V309-300	STROJ IN360DGA
Konstruoval: HLADIL		
Datum: 10. 07.2017		
Měřítko: 17:100		

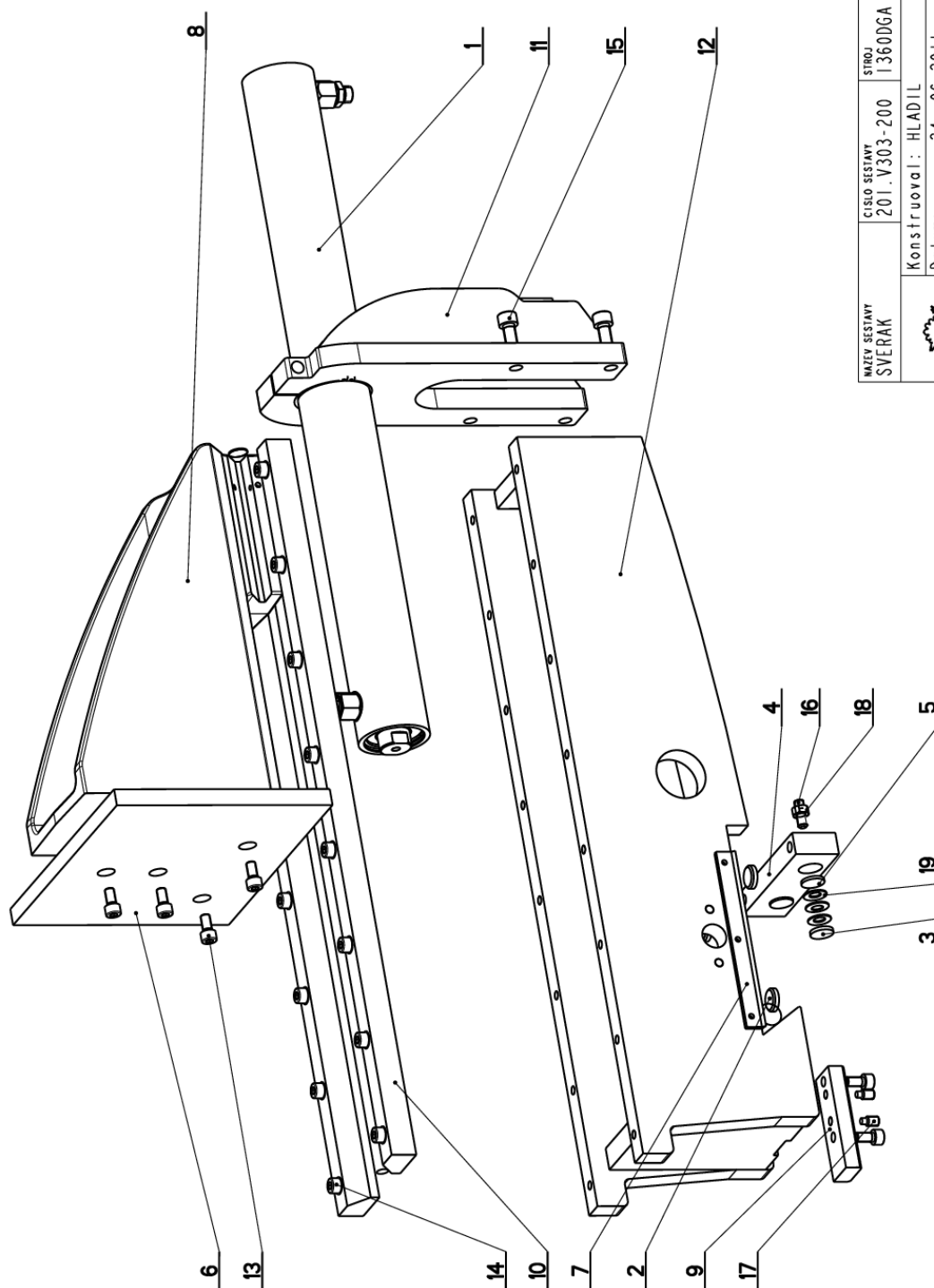
7.20. Kusovník / Stückliste / Piece list – Svěrák / Schraubstock / Vice

Císlo Sestavy 201.V309-300		Ver. 3	Název sestavy SVERAK/VICE/SCHRAUBSTOCK		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.V303-200	0	SVERAK / VICE / SCHRAUBSTOCK		1
2	201.V307-250	0	VALEC POMOCNY / AUXILIARY CYLINDER / HILFSZYLINDER		1
3	201.V309-230	0	VALECEK / CYLINDER / ROLLE		4
4	30.1517-841	0	MATICE / NUT / MÜTTER	P 8x19	8
5	30.9002-007	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	d 20x4	2
6	30.V303-011	1	DRŽAK / HOLDER / HALTER	HR 35x10	1
7	30.V309-009	0	DRŽAK / HOLDER / HALTER	P 4x40	2
8	30.V309-302	2	CELIST PEVNÁ / SOLID JAW / FESTE BACKE	P 25x180	1
9	30.V309-305	1	VEDENÍ / GUIDE / BACKENFÜHRUNG	P 3x215	1
10	30.V309-306	0	LISTA CELISTI / JAW TRIM / BACKENLEISTE	HR 30x10	1
11	30.V309-201	1	PODSTAVEC SVERAKU / VICE BASE / SCHRAUBSTOCKUNTERSATZ		1
12	30.V309-203	1	CELIST PEVNÁ / SOLID JAW / FESTE BACKE	HR 200x25	1
13	30.V309-204	2	DRŽAK / HOLDER / HALTER	P 3x45	1
14	30.V309-205	0	VEDENÍ / GUIDE / BACKENFÜHRUNG	HR 160x40	1
15	30.V309-207	1	PLECH / PLATE / BLECH	P 4x341	1
16	30.V309-210	0	DESKA / BOARD / PLATTE		1
17	30.V309-213	1	DRŽAK / HOLDER / HALTER	HR 75x15	1
18	30.V314-002	1	SKLUZ / SLIDE / RUTSCH	P 2x183	1
19	90.001.25.010	1	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x20	2
20	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x40	4
21	90.002.20.018	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x20	2
22	90.002.20.020	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x30	4
23	90.002.20.024	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M10x30	4
24	90.002.20.026	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M10x10	4
25	90.150.50.003	1	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 5,3	2
26	90.300.07.011	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 8x40	4
27	90.300.07.035	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLÍK 16x45	2
28	91.172.069	3	SPINAC INDUKTIVNÍ / /	IME08-02BPSVT0SS12	2
29	91.173.007	1	SPINAC KONCOVÝ / END SWITCH / ENDSCHALTER	-RIWK	1
30	91.173.017	0	SPINAC KONČ. S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	FR 630	2
1. PRID.DRŽAK 30.V303-011,2xSROUB M5x20(90.001.25.010),2xPODLOŽKA 5.3(90.150.50.003),1xKONCOVÝ SPINAC 91.173.007).					
2.39ZM304 25.10.2012 SLEZACKOVA					
2.ZRUS.REGULACE TLAKU SVERAKU 201.2115-200,PRIDAN DRŽAK 30.V309-204. 025/ZM065 8.3.2013 SLEZACKOVA					
3.ZRUSEN SPINAC 91.172-009 A NAHR.91.172-069. 144/ZM25 10.7.2017 SLEZACKOVA					

1. PRID. DRŽÁK 30.V303-011, 2x SROUB M5x20(90.001.25.010), 2x PODLOŽKA 5.3(90.150.50.003), 1x KONCOVÝ SPINÁK 91.173.007).
- 239ZM304 25.10.2012 SLEZACKOVA
2. ZRUS. REGULACE TLAKU SVĚRÁKU 201.2115-200, PRIDAN DRŽÁK 30.V309-204, 025/ZM065 8.3.2013 SLEZACKOVA
3. ZRUSEN SPINÁK 91.172.009 A NAHR. 91.172.069. 144/ZM225 10.7.2017 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

7.21. Svěrák / Schraubstock / Vice



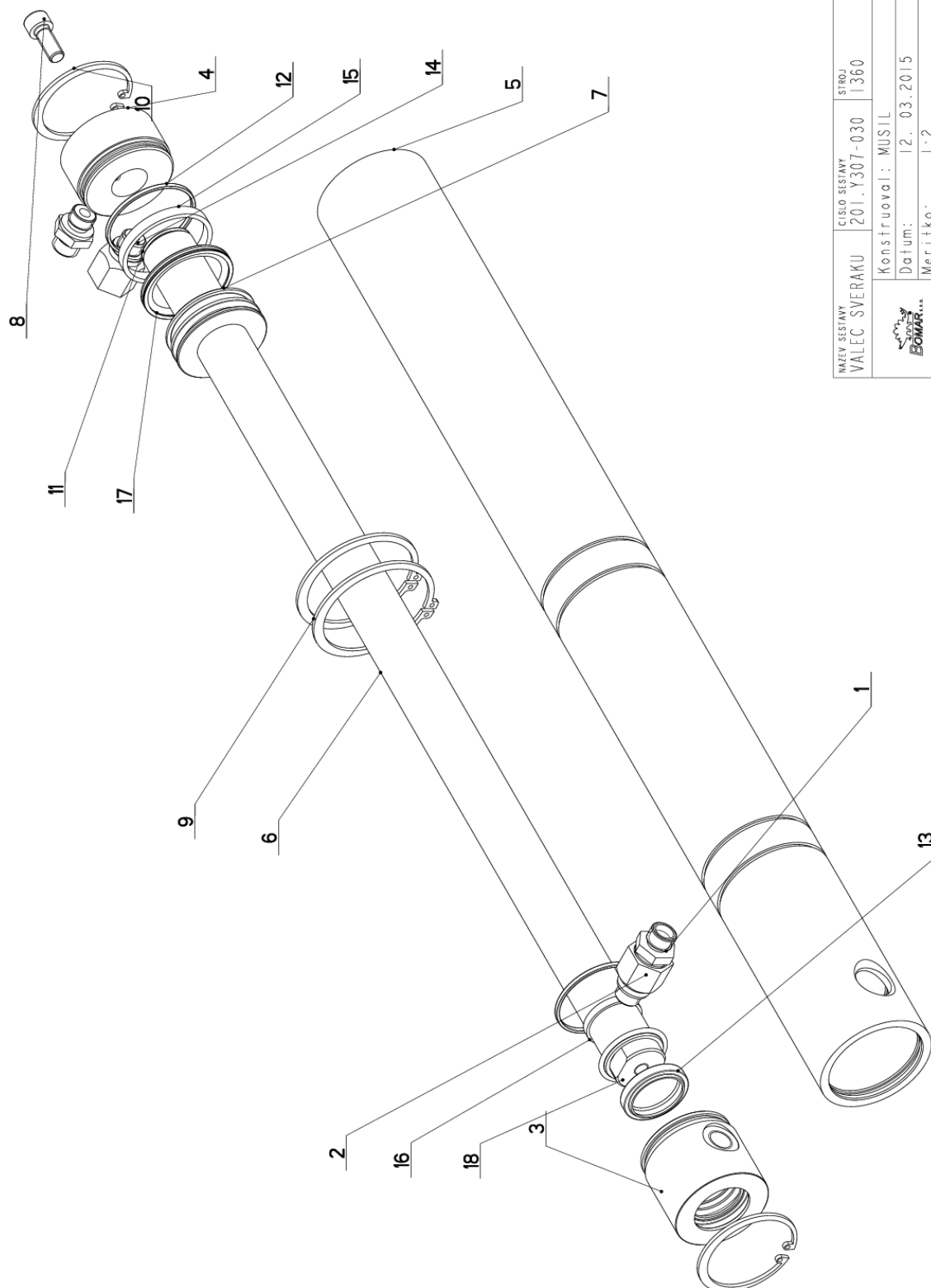
NAZEV SESTAVY SVĚRÁK	CÍSLO SESTAVY 201.V303-200	STROJ 1360DGA
Konstruoval: HLADIL		
Datum: 24. 06. 2011		
Meritko: 33:100		

7.22. Kusovník / Stückliste / Piece list – Svěrák / Schraubstock / Vice

Císlo Sestavy 201.V303-200	Ver. 0	Název sestavy SVERAK/VICE/SCHRAUBSTOCK			
Poz.	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	201.Y307-030	0	VALEC SVERAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
2	30.0509-608	0	LISTA TRECI / FRICTION TRIM / FRIKTIONSLEISTE	d20	4
3	30.0803-005	0	DESKA / BOARD / PLATTE		2
4	30.Y303-006	0	LISTA SVERAKU / VICE TRIM / SCHRAUBSTOCKLEISTE	HR 40x20	1
5	30.Y303-010	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	d 20	2
6	30.Y303-209	0	CELIST / JAW / BÄCKE	HR 200x16	1
7	30.Y309-011	0	STERAC / WIPER / ABSTREIFER	BA18	2
8	30.Y303-005	0	CELIST / JAW / BÄCKE		1
9	30.Y303-010	0	PRÍLOŽKA / STRAP / LASCHE	HR 30x15	1
10	30.Y303-102	0	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	HR 40x25	2
11	30.Y303-104	2	DRŽAK / HOLDER / HALTER		1
12	30.Y303-203	0	SVERAK / VICE / SCHRAUBSTOCK		1
13	90.001.25.031	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	6
14	90.001.25.032	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	16
15	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x20	4
16	90.002.20.013	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8x25	2
17	90.004.20.008	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8x16	2
18	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE - M8	2
9	90.350.02.005	0	PRUŽINA TALÍROVA / DISC SPRING / TELLERFEDER	20x10.2x1	6

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

7.23. Válec svěráku / Schraubstockzylinder / Vice cylinder



NAZEV SESTAVY VÁLEC SVĚRAKU	ČÍSLO SESTAVY 201.Y307-030	STROJ 1360
Konstruoval: MUSIL		
Datum: 12. 03.2015		
Meritko: 1:2		

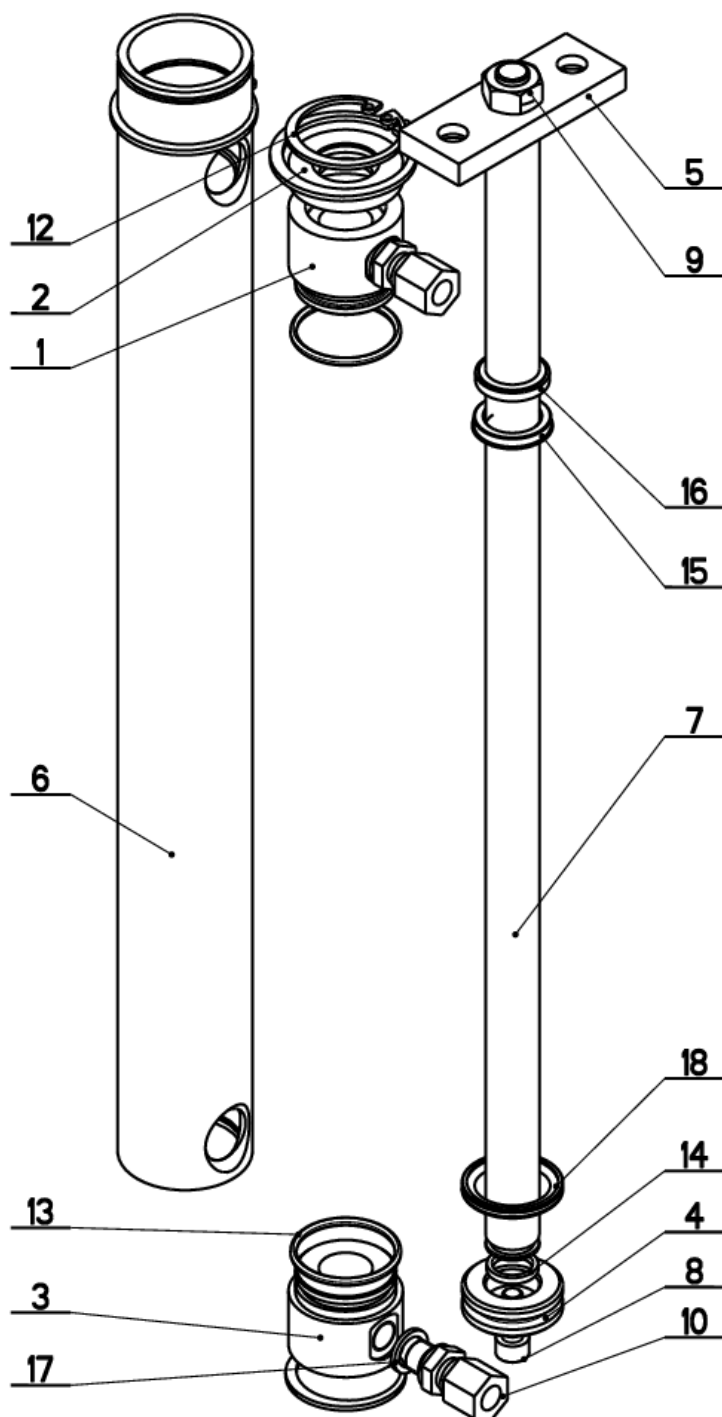
7.24. Kusovník / Stückliste / Piece list – Válec svěráku / Schraubstockzylinder / Vice cylinder

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 HŘÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 62	2
10	95.801.009	0	SEGR DÍRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 52	2
11	96.002.011	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	24x2	1
12	96.002.019	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	46x2 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 (Pos./Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.25. Válec pomocný / Auxiliary cylinder / hilfzylinder



NAZEV SESTAVY VALEC POMOCNY	CISLO SESTAVY 201.Y307-250	STROJ IN360DGH
	Konstruoval: HLADIL	
	Datum: 14. 03.2011	
	Meritko: 3:5	

7.26. Kusovník / Stückliste / Piece list –
Válec pomocný / Auxiliary cylinder / hilfzylinder

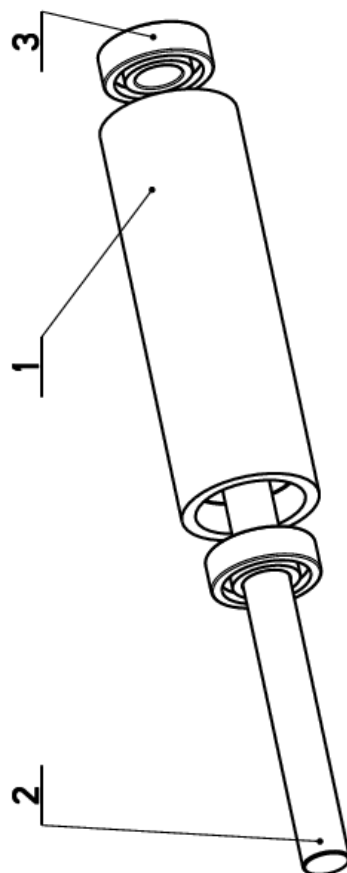
Císlo Sestavy 201.Y307-250		Ver. 0	Název sestavy VALEC POMOCNY/AUXILIARY CYLINDER/HILFSZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6807-103	1	VÍKO / COVER / DECKEL	TYC 35	1
2	30.6807-104	1	VÍKO / COVER / DECKEL	TYC 35	1
3	30.6807-105	0	VÍKO / COVER / DECKEL	TYC 35	1
4	30.6807-203	0	PIST / PISTON / KOLBEN	TYC 35	1
5	30.V307-157	0	DRŽÁK / HOLDER / HALTER	HR 25x8	1
6	30.V307-251	0	VALEC POMOCNY / AUXILIARY CYLINDER / HILFSZYLINDER	TR 40/30	1
7	30.V307-252	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 16	1
8	90.001.25.017	0	SROUB IMBUS ČERNÝ / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x16	1
9	90.100.55.006	0	MATICE / NUT / MUTTER	MATICE - M10	1
10	92.002.102	0	SROUBENÍ / BOLTING / VERSCHRAUBUNG	S-GEV-8LLR	2
11	95.800.015	0	KROUZEK POJIST.VNEJŠ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 40	2
12	95.801.026	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 34	2
13	96.001.008	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	26x2	2
14	96.002.006	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	12x2	1
15	96.041.001	0	TESNĚNÍ / SEALING / DICHTUNG	16x24x4	1
16	96.060.001	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	16x22	1
17	96.082.001	0	KROUZEK TESNICÍ / SEAL RING / DICHTUNGSRING	10/14	2
18	96.900.007	0	TESNĚNÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG		1

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

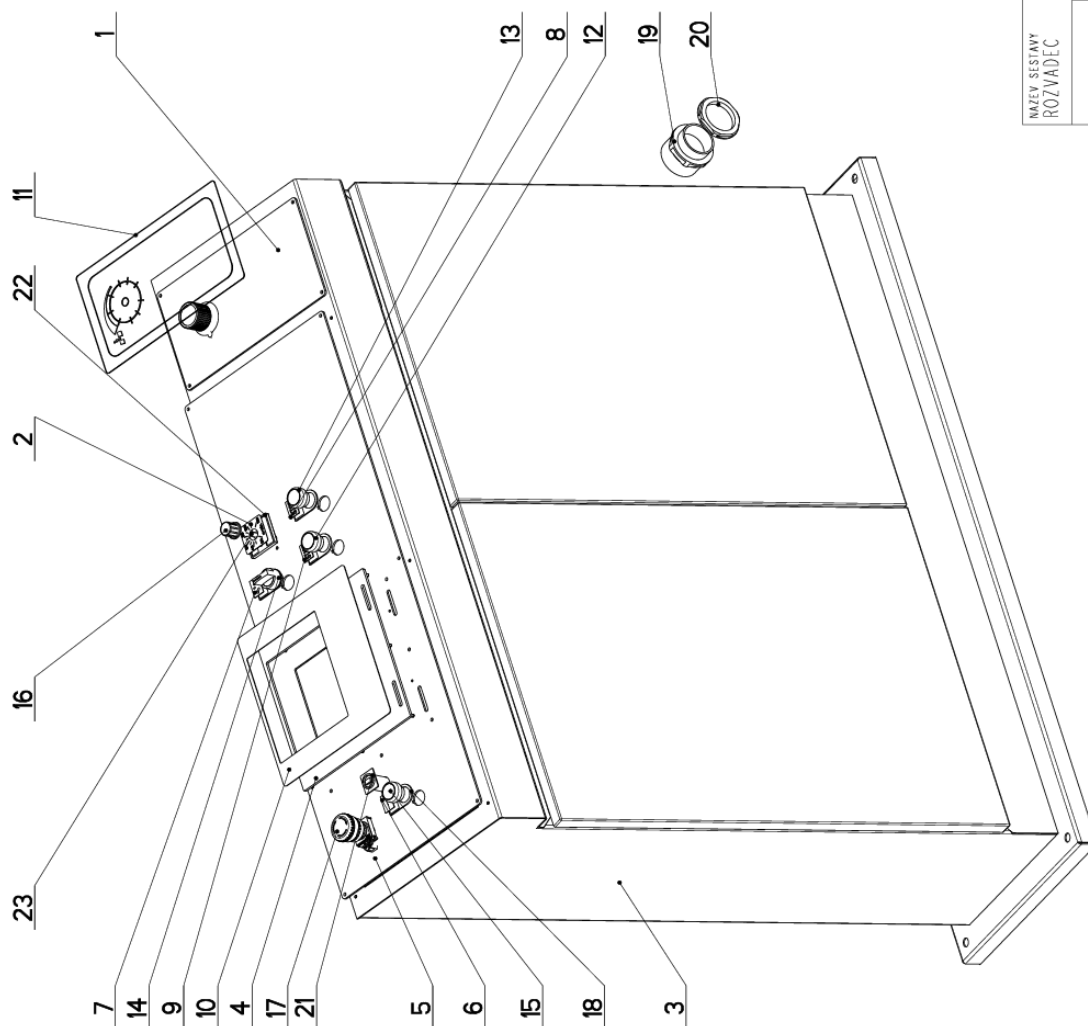
7.27. Váleček / Rolle / Cylinder

Císlo Sestavy 201.Y309-230		Ver. 0	Název sestavy VALECEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.Y309-231	0	VALECEK / CYLINDER / ROLLE	TR 51x6.3	1
2	30.Y309-232	0	OSA / AXLE / AXHE	d17	1
3	95.001.016	0	LOŽISKO / BEARING / LAGER	6203 2RS	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 polozky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.28. Rozvaděč / Distributor / Verteiler



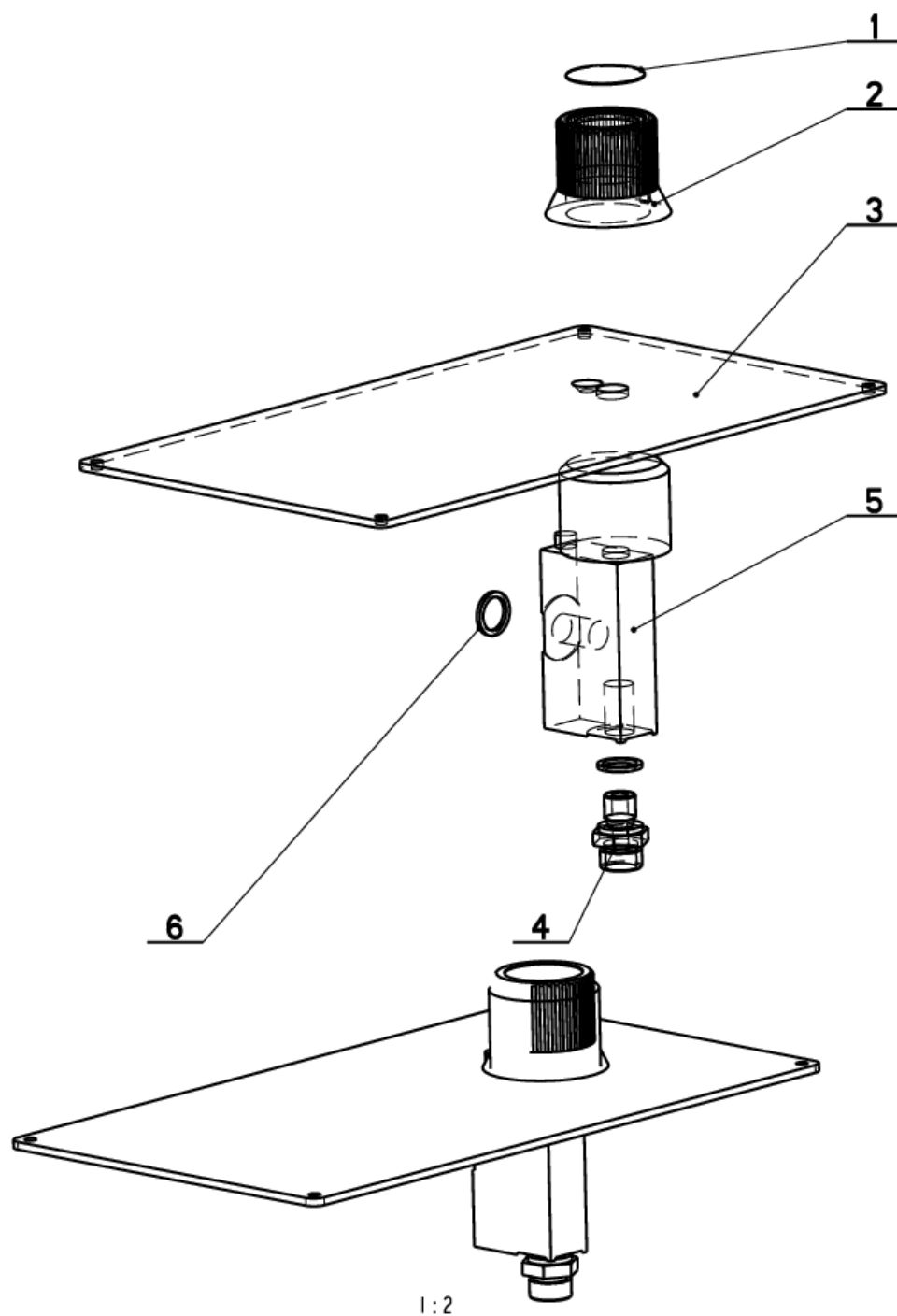
NAZEV SESTAVY ROZVADEC	CISLO SESTAVY 201.W330-400	STROJ IN360DGA
Konstruoval: HLADIL		
Datum: 28. 02. 2017		
Meritko: 17:100		

7.29. Kusovník / Stückliste / Piece list – Rozvaděč / Distributor / Verteiler

Císlo Sestavy 201.W330-400		Ver. 1	Název sestavy ROZVADEC/DISTRIBUTOR/VERTEILER		
Poz	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.Y330-020	0	PANEL / PANEL		1
2	30.1813-108	0	STUPNICE / SCALE / SKALA	P 0.5x43	1
3	30.W330-101	0	ROZVADEC / DISTRIBUTOR / VERTEILER	KOMPLET	1
4	30.W330-158	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
5	30.W330-159	0	PANEL / PANEL	P 3x285	1
6	30.Y330-022	1	STÍTEK / LABEL / SCHILD	BEZP. OKRUH	1
7	30.Y330-028	1	STÍTEK / LABEL / SCHILD	CYKLUS	1
8	30.Y330-031	1	STÍTEK / LABEL / SCHILD	STOP	1
9	30.Y330-032	1	STÍTEK / LABEL / SCHILD	START	1
10	31.W330-155	0	SAMOLEPKA / STICKER / AUFKLEBER	HT 4582	1
11	31.Y330-010	0	SAMOLEPKA / STICKER / AUFKLEBER	FOLIE	1
12	91.060.031	0	HLAVICE / HEAD / KOPF		1
13	91.060.035	0	HLAVICE / HEAD / KOPF		1
14	91.060.051	0	PREPINAC / SWITCH / UMSCHALTER		1
15	91.060.053	0	HLAVICE / HEAD / KOPF		1
16	91.060.063	0	HLAVICE / HEAD / KOPF	S8877 BLK	1
17	91.060.084	0	TOTAL-STOP / TOTAL STOP / TOTALSTOPP	TOTAL STOP	1
18	91.062.009	0	SPINAC / SWITCH / SCHALTER		4
19	91.071.022	0	VYVODKA / BUSHING / TÜLLE		3
20	91.072.016	0	MATICE / NUT / MUTTER		3
21	91.141.093	0	PROPOJKA / CONNECTION / VERBINDUNGSSTÜCK	KONEKTOR USB	1
22	91.180.003	0	STÍTEK / LABEL / SCHILD		1
23	91.283.015	0	POTENCIOMETR / POTENTIOMETER / POTENTIOMETER	TP 195 4K7/N 20A	1

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

7.30. Panel / Panel / Panel

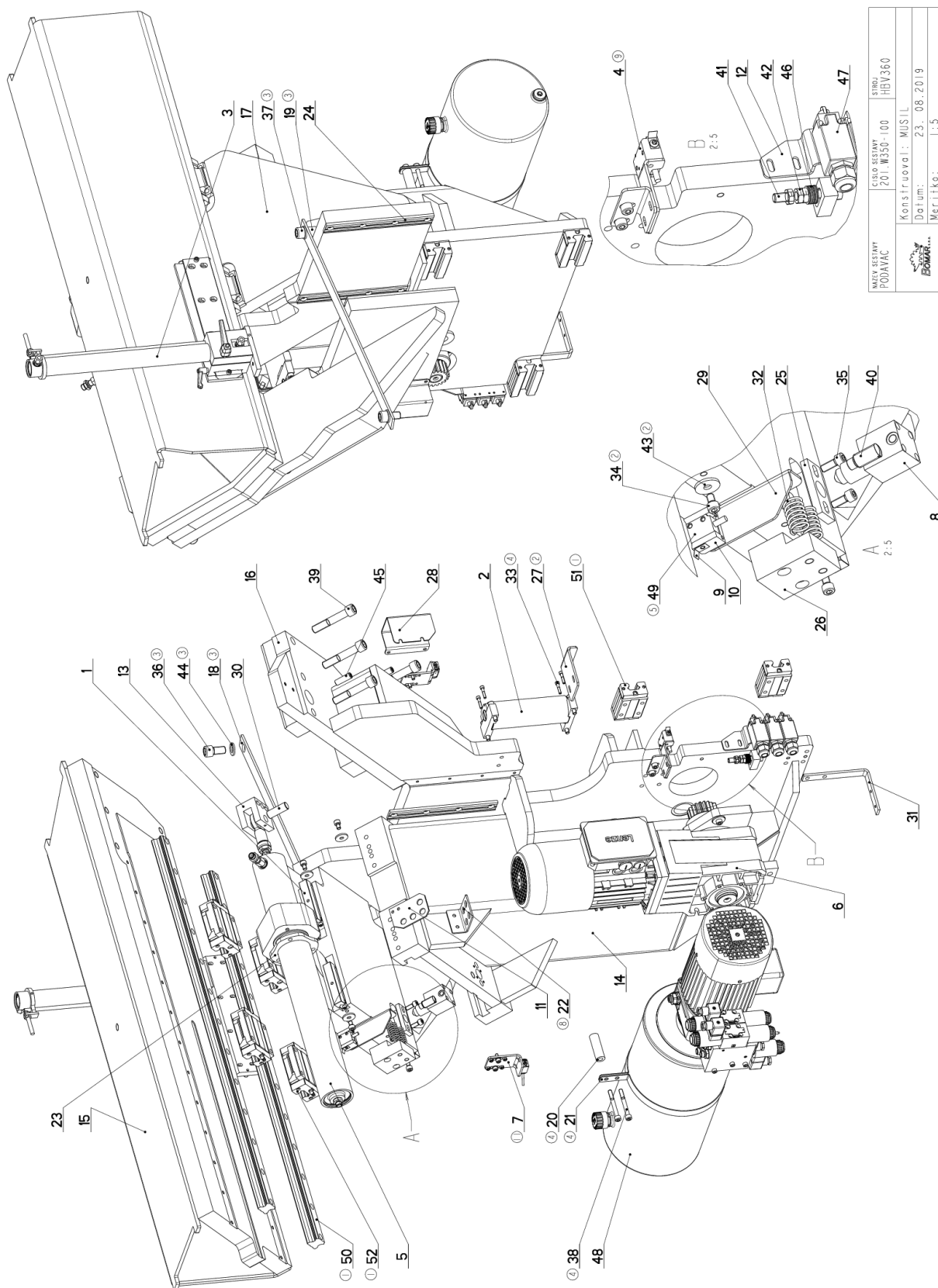


NAZEV SESTAVY PANEL	CISLO SESTAVY 201.Y330-020	STROJ IN360
	Konstruoval: RYSAVY	
	Datum: 11. 01.2010	
	Meritko: 7:10	

7.31. Kusovník / Stückliste / Piece list – Panel / Panel / Panel

Cislo Sestavy 201.Y330-020		Ver. 0	Název sestavy PANEL/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	30.1301-014	0	DESKA / BOARD / PLATTE	P 3x160	1
4	92.002.103	0	SROUBENI PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	G 1/4" tr12	1
5	92.152.001	0	VENTIL SKRTICI / CHOKE VALVE / DROSSELVENTIL	VS01-04/R 2.5-0	1
6	96.082.002	0	KROUZEK CU TESNICI / SEALING / DICHTUNG	KROUZEK CU 13/17	2

7.32. Podavač / Vorschub / Feeder



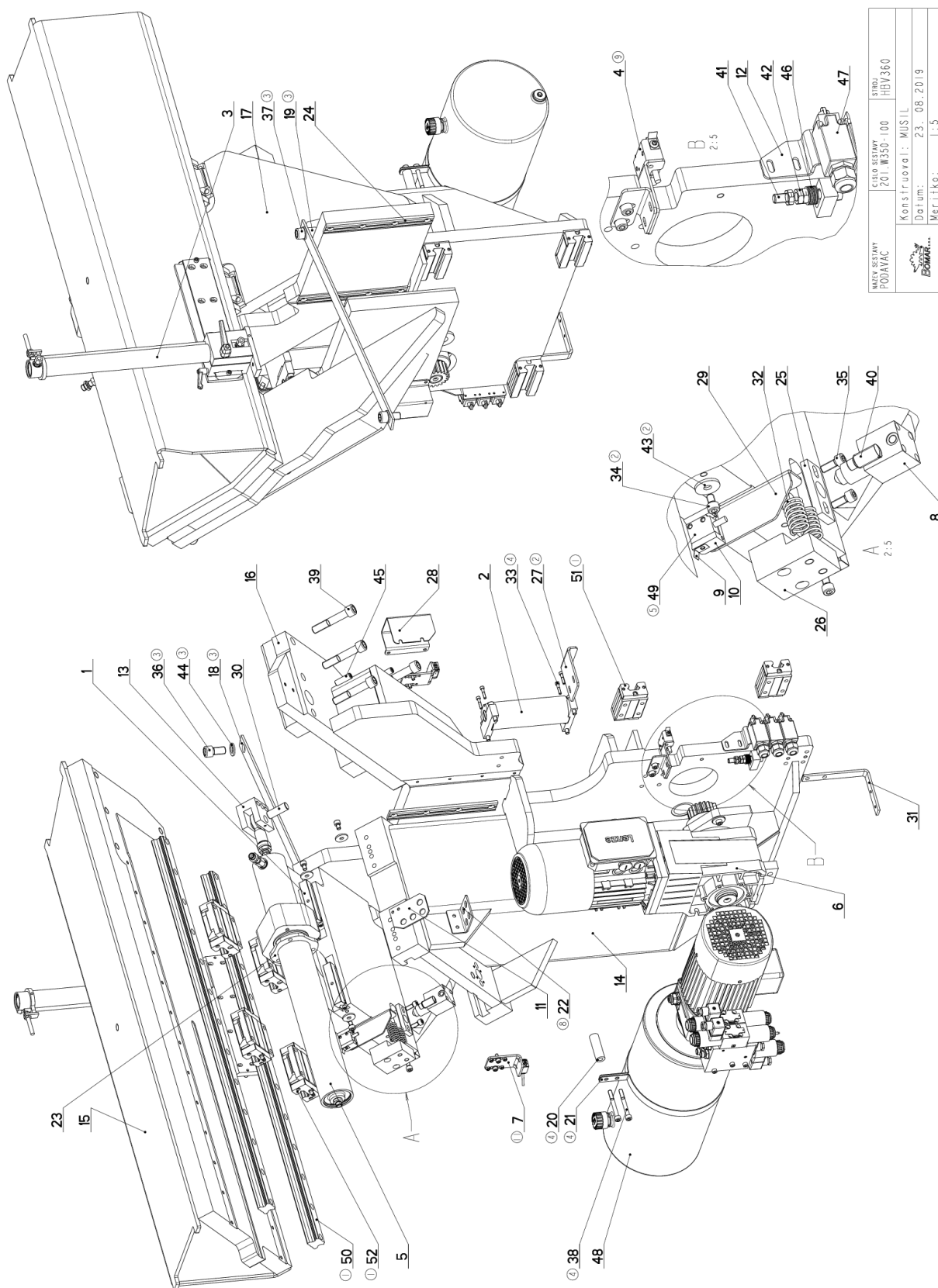
NÁZEV SESTAVY PODÁVAČ	ČÍSLO SESTAVY 201.W356-100	STRANA HBV360
Konstruoval: MUSIL		
Datum: 23. 08. 2019		
Měřítko: 1:5		

7.33. Kusovník / Stückliste / Piece list – Podavač / Vorschub / Feeder

Cislo Sestavy 201.W350-100		Ver. 11	Název sestavy PODAVAC/FEEDER/VORSCHUB			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	201.2911-200	1	ELEMENT VALECKOVÝ / ROLLER ELEMENT / ROLLELEMENT		4	
2	201.W350-020	0	VALEČEK / ROLLER / ROLLE		1	
3	201.W350-130	1	UPINACÍ HORNÍ / TOP CLAM / SPANNVORRICHTUNG OBEN		1	
4	201.W350-140	9	ODMEROVÁNÍ / MEASURING / GEHRUNGSMESSUNG		1	
5	201.W357-010	1	VALEC UPINACÍ / FIXING CYLINDER / SPANNZYLINDER		1	
6	201.W450-010	2	POHON / DRIVE / ANTRIEB		1	
7	201.W4514-010	0	ZAVORA OPTICKÁ / OPTICAL GATE / LICHTSCHRANKE		1	
8	201.W457-020	0	VALEC POMOCNÝ / AUXILIARY CYLINDER / HILFSZYLINDER		1	
9	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0.3x11	2	
10	30.1504-024	0	DRŽÁK / HOLDER / HALTER	HR 40x20	1	
11	30.8910-005	1	DRŽÁK / HOLDER / HALTER	P 3x60	1	
12	30.W350-007	0	DRŽÁK / HOLDER / HALTER	P 3x45	1	
13	30.W350-008	1	DRŽÁK / HOLDER / HALTER	HR 60x60	1	
14	30.W350-101	6	VOZÍK / CART / WAGEN		1	
15	30.W350-102	4	NOSNÍK / CARRIER / TRÄGER		1	
16	30.W350-103	4	CELIST POHYBLIVÁ / MOVING JAW / BEWEGLICHE BACKE		1	
17	30.W350-104	5	CELIST PEVNÁ / SOLID JAW / FESTE BACKE		1	
18	30.W350-105	3	TYC / POLE / STANGE	HR 30x5	1	
19	30.W350-106	3	DISTANC / DISTANCE / DISTANZ	TR 22x2	1	
20	30.W350-107	4	DISTANC / DISTANCE / DISTANZ	TR 20x5	1	
21	30.W350-108	4	DRŽÁK / /	P 1.5x20	1	
22	30.W350-355	8	DRŽÁK / HOLDER / HALTER	P3x60	1	
23	30.W450-005	0	PŘILOŽKA / STRAP / LASCHE	P 8x10	1	
24	30.W450-006	2	LISTA / TRIM / LEISTE	HR 30x10	4	
25	30.W450-007	0	DESKA / BOARD / PLATTE	TYC30x10	1	
26	30.W450-021	1	DORAZ / STOP PIECE / ANSCHLAG	HR 60x40	1	
27	30.W450-213	2	DORAZ / STOP PIECE / ANSCHLAG	P 4x70	1	
28	30.W454-004	2	KRYT / COVER / ABDECKUNG	P 2x100	1	
29	30.W454-005	0	DRŽÁK / HOLDER / HALTER	P 3x82	1	
30	30.W454-006	1	CEP / LUG / BOLZEN	D 17	1	
31	30.W454-007	1	DRŽÁK / HOLDER / HALTER	HR 20x5	1	
32	31.4307-508	1	PŘÍŽINA / SPRING / FEDER	2.5x23x38x6.5	2	
33	90.001.25.011	4	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x25	4	
34	90.001.25.029	3	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x12	4	

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

7.34. Podavač / Vorschub / Feeder



NAZEV SESTAVY PODAVAČ	ČÍSLO SESTAVY 201.W550-100	STŘEŠÍ HBV360
Konstruoval: MJSIL		
Datum: 23. 08. 2019		
Měřítko: 1:5		

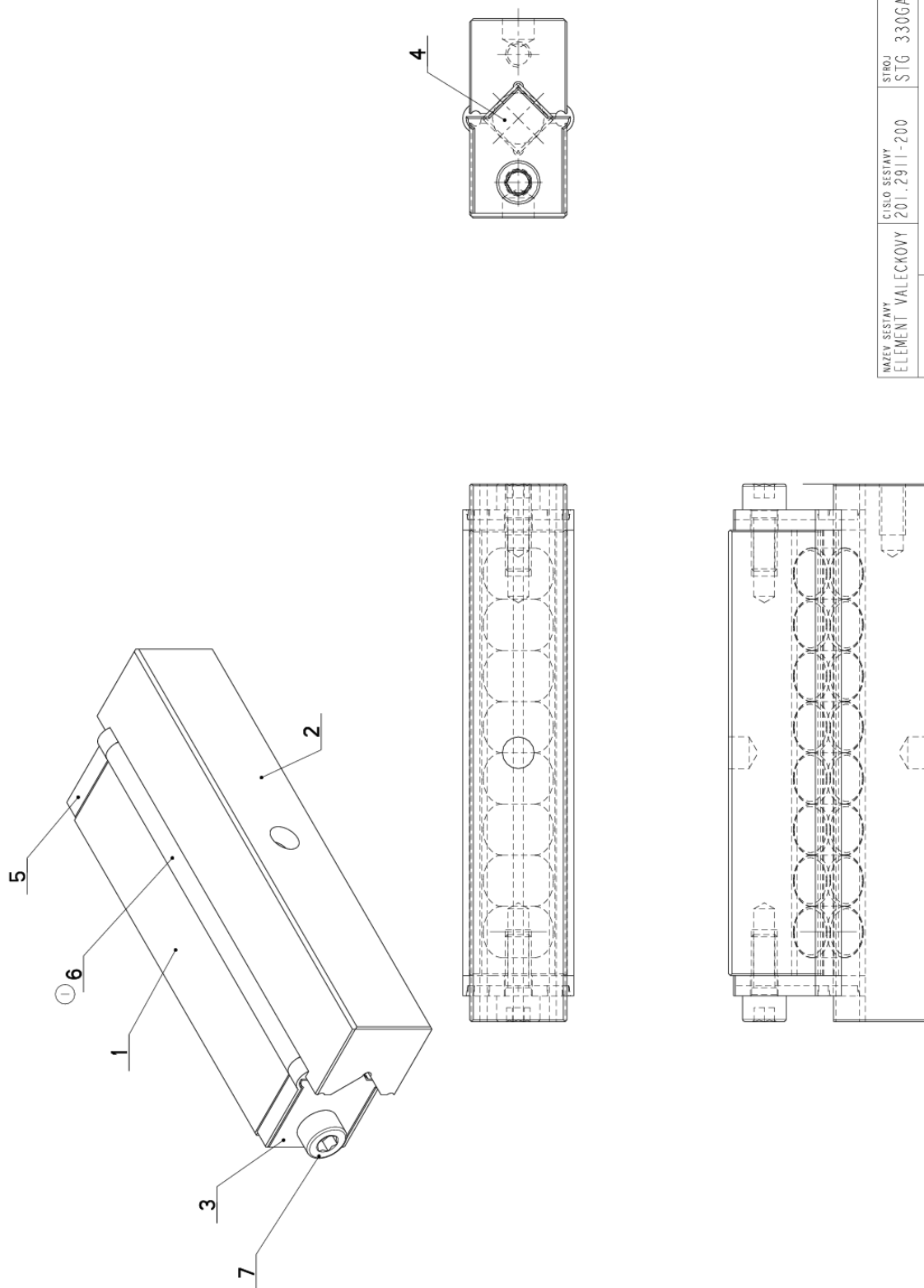
7.35. Kusovník / Stückliste / Piece list – Podavač / Vorschub / Feeder

35	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	2
36	90.001.25.077	3	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X30	1
37	90.001.25.086	3	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X40	1
38	90.001.25.095	4	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X70	2
39	90.001.25.101	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X90	5
40	90.004.20.019	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M16X40	1
41	90.005.55.042	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X70	1
42	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	3
43	90.151.50.005	2	PODLOZKA / WASHER / UNTERLEGSCHIEBE	PODLOZKA 8	4
44	90.162.00.002	3	PODLOZKA / WASHER / UNTERLEGSCHIEBE	16 ZN	2
45	90.302.02.015	0	KUZEL. KOLIK S ZAV. / TAPER PIN + THREAD / KEGELBOLZEN + GEWINDE	KOLIK 12X40	2
46	90.350.02.005	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	20X10.2X1	8
47	91.173.010	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		3
48	92.001.072	0	AGREGAT HYDRAULICKY / HYDRAULIC GENERATOR / HYDRAULIKAGGREGAT	370/550 W; 5 MPa	1
49	92.270.018	6	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	LMIX2-026-08.0-1-00-L	1
50	99.200.295	1	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FUHRUNG	MSA 35R 980 10/10N	2
51	99.201.055	1	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFUHRUNGSWAGEN	MSA30S	4
52	99.201.056	1	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFUHRUNGSWAGEN	MSA35SESSFON	4

1. ZRUS. LINVEDENI (HIWIN) 99.200.194 A NAHR. 99.200.295 (PMI), ZRUS. VOZIK LIN. VEDENI (HIWIN) 99.201.011 A NAHR. 99.201.056 (PMI), ZRUS. VOZIK (HIWIN) 99.201.019 A NAHR. 99.201.055 (PMI). 056/ZMI45 3.5.2012 SLEZACKOVA
2. PRID. 4xPODLOZKA VEKOPLOSNA 90.151.50.005 A 4xSROUB M8x12 90.001.25.029, PRID. DORAZ 30.W450-213. 169, 192/ZM220, 259 1.10.2012 SLEZACKOVA
3. PRIDANA TYC 30.W350-105, DISTANC 30.W350-106, 2xPODLOZKA 16 90.162.00.002, 1xSROUB M16x30 90.001.25.077, 1xSROUB M16x40 90.001.25.086. 290/ZM357 13.12.2012 SLEZACKOVA
4. ZRUS. SNIMAC 92.270.018 A NAHR. 91.270.011, PRID. 1xDRZAK 30.W350-108, 1xDISTANC 30.W350-107, 2xSROUB M8x70(90.001.25.095), 4xSROUB M5x25(90.001.25.011) 140.064/ZM130 12.6.2014 SLEZACKOVA
5. ZRUSEN SENZOR 91.270.011 A NAHRAZEN 92.270.018. 054/ZM035 4.3.2015 SLEZACKOVA
6. ZRUS. SNIMAC BALUFF 91.400.003, 91.400.004 A NAHR. SNIMACEM SCHMACHTL(LEUZE) 91.400.059, 91.400.060, 91.400.061. ZRUS. DRZAK 30.W354-001 A NAHR. 30.W354-006. 198/ZM224 12.10.2015 SLEZACKOVA
7. DRZAK 30.W350-006 NAHRAZEN DRZAKEM 30.W350-137 + ZMENA POLOHY SNIMACE ELGO; 12/zm.015 25.1.2016 HLADIL
8. PRIDAN DRZAK HADIC 30.W350-355; zm.038 3.2.2017 HLADIL
9. ZRUS. SOUCASTI: 92.270.018(1ks); 30.W350-137(1ks); 30.1504-024(1ks); 30.1504-017(2ks) A NAHR. SETAVOU 201.W350-140. 092/ZMI13 27.3.2017 HLADIL
10. ZRUS. SNIMAC 91.400.059; 91.400.060; 91.400.061 A NAHR. 91.400.075. 158/ZM271 3.9.2018 SLEZACKOVA
11. ZRUS. SNIMAC 91.400.075 A DRZAK 30.W354-006 A NAHR. ZAVOROU 201.W4514-010. 249/ZM350 23.08.2019 BENDA

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

7.36. Element válečkový/ Roller element/ Rollenelement



NAZEV SESTAVY ELEMENT VALEČKOVÝ	ČÍSLO SESTAVY 201.2911-200	STROJ STG 330GA
Konstruoval: ***		
Datum: 22. 11.2017		
Měřitko: 3:2		

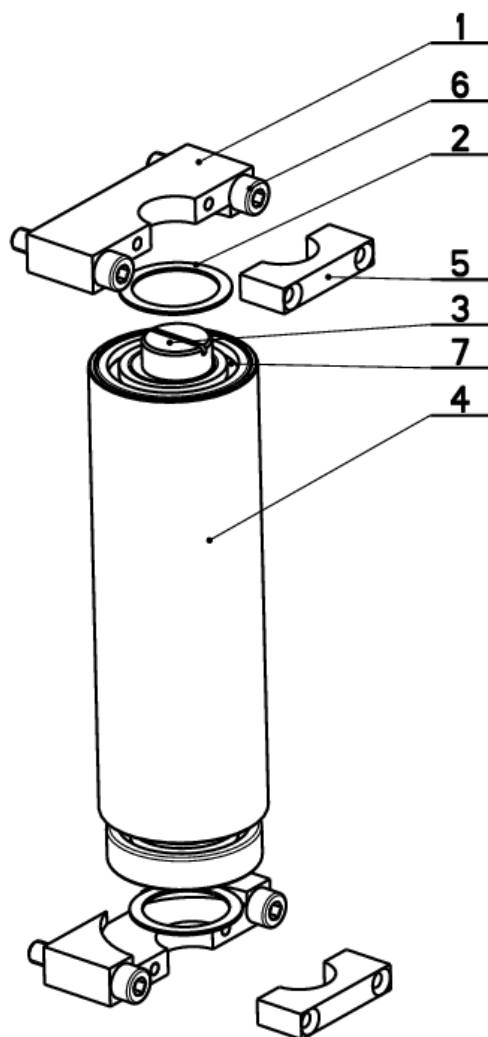
7.37. Kusovník / Stückliste / Piece list – Element válečkový/ Roller element/ Rollenelement

Číslo Sestavy 201.2911-200		Ver. 0	Název sestavy ELEMENT VALEČKOVÝ/ROLLER ELEMENT/ROLLENELEMENT		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2911-201	1	LISTA / TRIM / LEISTE	HR 20x20	1
2	30.2911-202	1	LISTA / TRIM / LEISTE	HR 20x20	1
3	30.2911-206	0	PRÍLOŽKA / STRAP / LASCHE	P 2x20	2
4	30.4311-203	0	VALEČEK / CYLINDER / ROLLE	d 10	8
5	31.2911-204	0	STERAC / WIPER / ABSTREIFER	PLAST. VYLISEK	2
6	89.2911-205	0	PRACHOVKA / DUST COVER / STAUBSCHUTZ	VYLISEK PLAST	2
7	90.001.25.008	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSHSCRAUBE	M5x12	2

I.ZM.CISLOVANI 31.2911-205 NA 89.2911-205; 129/ZM233 4.7.2018 SCERBA

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

7.38. Váleček / Rolle / Cylinder



NAZEV SESTAVY VALECEK	CISLO SESTAVY 201.W350-020	STROJ H-BV360
	Konstruoval: MUSIL	
	Datum: 30. 11. 2009	
	Meritko: 1:2	

7.39. Kusovník / Stückliste / Piece list – Váleček / Rolle / Cylinder

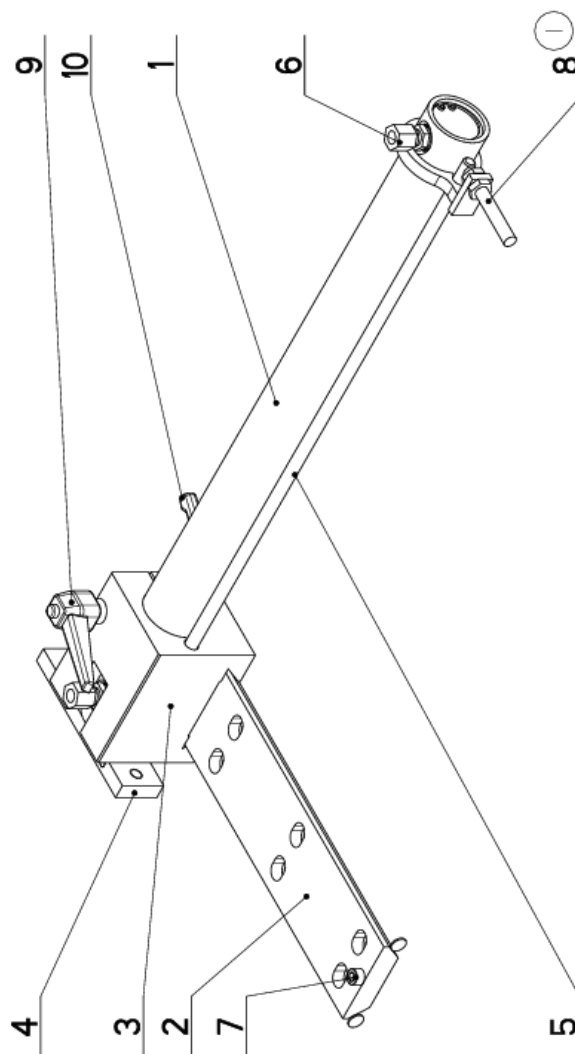
Císlo Sestavy 201.W350-020		Ver. 0	Název sestavy VALEČEK/ROLLER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.W350-021	0	DESKA / BOARD / PLATTE	HR 30x15	2
2	30.W350-022	0	PODLOŽKA / WASHER / UNTERLEGSCHIBE	TR 40x5	2
3	30.W350-023	0	HRDEL / SHAFT / WELLE	D30	1
4	30.W350-024	0	VALEC / ROLLER / ZYLINDER	TR 60x6	1
5	30.W350-025	0	DESKA / BOARD / PLATTE		2
6	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSHSCRAUBE	M8x40	4
7	95.001.009	0	LOŽISKO / BEARING / LAGER	6006 2RS	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

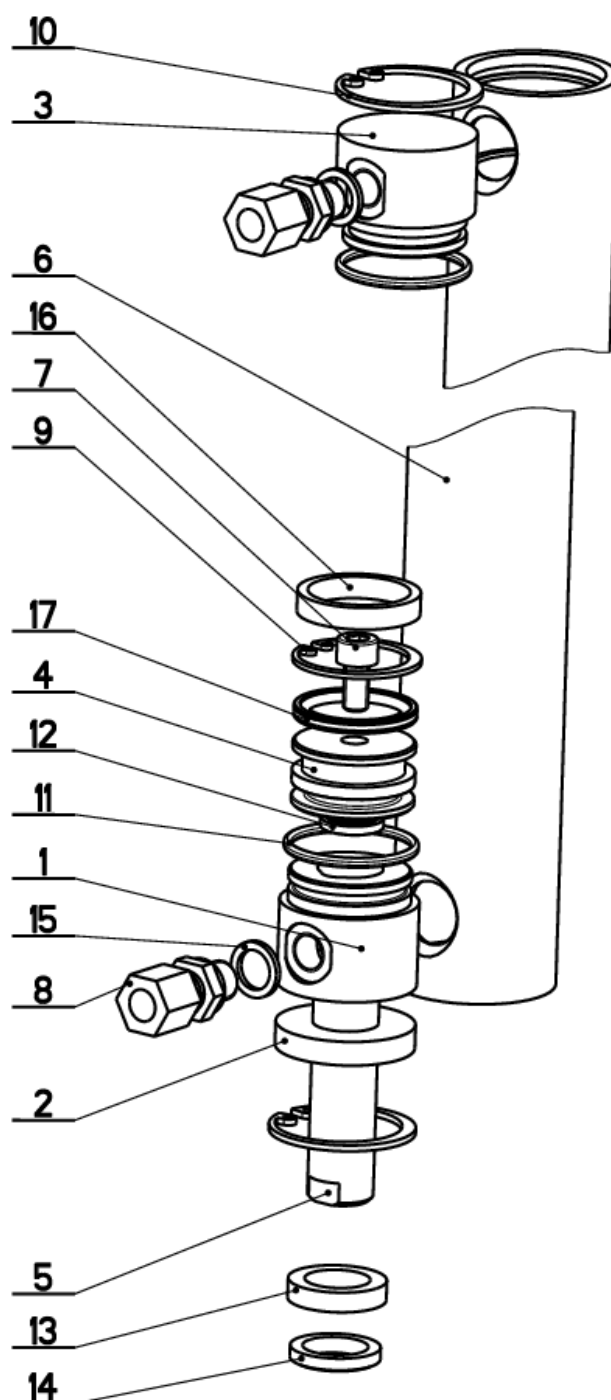
7.40. Horní upínání / Top clamp / Spannvorrichtung oben

Číslo Sestavy 201.W350-130		Ver. 1	Název sestavy UPÍNÁNÍ HORNÍ / TOP CLAMP/SPANNVORRICHTUNG OBEN		
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	201.W307-120	0	VALEC UPÍNACÍ / FIXING CYLINDER / SPANNZYLINDER		1
2	30.W350-131	0	LISTA / TRIM / LEISTE	HR 60x15	1
3	30.W350-132	0	KLUZÁK / GLIDER / GLEITER	HR 70x70	1
4	30.W350-133	1	DESKA / BOARD / PLATTE	HR 30x10	1
5	30.W350-134	0	TYC VODICÍ / LEAD POLE / FÜHRUNGSSTANGE	D 8	1
6	30.W350-136	0	DRŽÁK / HOLDER / HALTER		1
7	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	2
8	91.172.057 (1)	0	SPINAC / SWITCH / SCHALTER	AECO-S18-DC2 PNP NO HI /108000084	1
9	94.008.006	0	PAKA UPÍNACÍ / ATTACHMENT LEVER / SPANNHEBEL	M10	1
10	94.008.015	0	PAKA UPÍNACÍ / ATTACHMENT LEVER / SPANNHEBEL		1

1.ZRUSEN SPINAC 91.172.001 A NAHR.91.172.057. 172/ZM198 25.8.2015 SLEZACKOVA



7.41. Válec upínací / Spannzyylinder / Fixing cylinder



NAZEV SESTAVY VALEC UPINACI	CISLO SESTAVY 201.W307-120	STROJ IN360
	Konstruoval: MUSIL	
	Datum: 05. 01.2011	
	Meritko: 7:10	

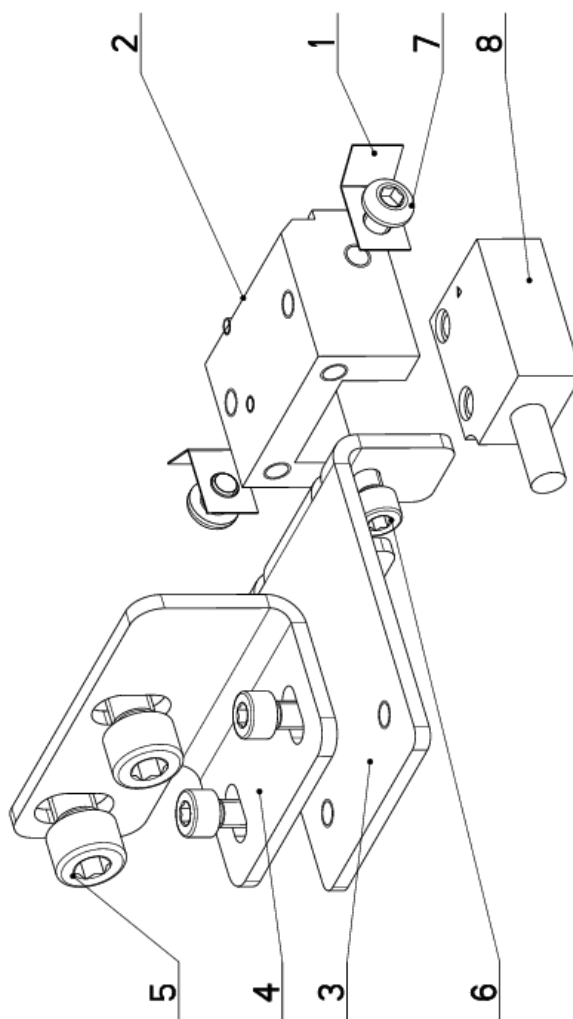
7.42. Kusovník / Stückliste / Piece list –
Válec upínací / Spannzyylinder / Fixing cylinder

Císlo Sestavy 201.W307-120		Ver. 0	Název sestavy VALEC UPÍNAČI / 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	ø 16 f8	1
6	30.W307-121	0	VALEC UPÍNAČI / FIXING CYLINDER / SPANNZYLINDER	TR 40/30	1
7	90.001.25.016	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x12	1
8	92.002.102	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	S-GEV-8LLR	2
9	95.801.002	0	KROUZEK POJIST.VNÍTR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 30	1
10	95.801.026	0	KROUZEK POJIST.VNÍTR / 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	ø16	1
14	96.060.001	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	16x22	1
15	96.082.001	0	TESNENÍ / SEALING / DICHTUNG	KROUZEK CU 10/14	2
16	96.084.002	0	KROUZEK VODÍČI / 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 (Poz.)/Position/Position;
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

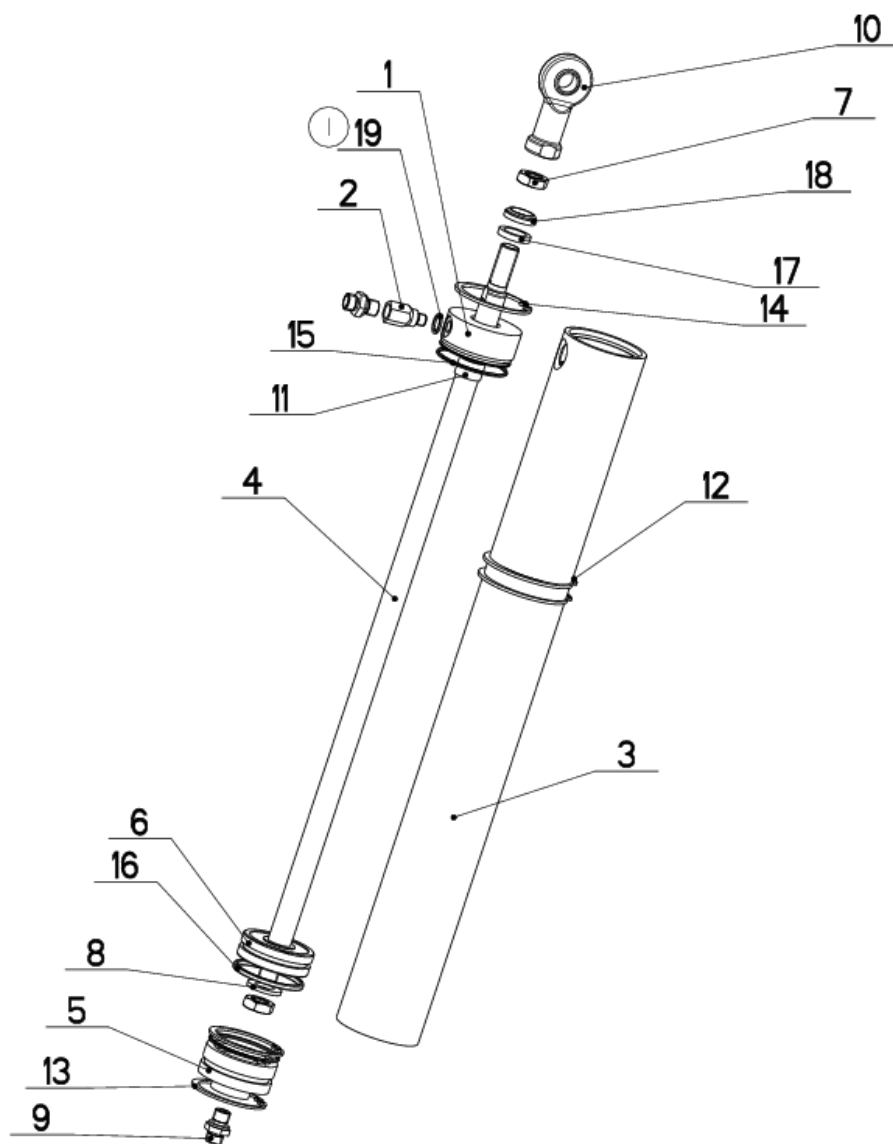
7.43. Odměrování / Measuring / Gehrungsmessung

Císto Sestavy 201.W350-140		Ver. 0	Název sestavy ODMEROVÁNÍ / MEASURING / GEHRUNGSMESSUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0,3x11	2
2	30.1504-024	0	DRŽÁK / HOLDER / HALTER	HR 40x20	1
3	30.TL311-241	0	DRŽÁK / HOLDER / HALTER	P 3x48	1
4	30.W350-141	0	DRŽÁK / HOLDER / HALTER	P3x58	1
5	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x12	2
6	90.001.25.126		SROUB IMBUS / /	M5x10	4
7	90.013.21.002	0	SROUB PULKULATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M5x6	2
8	92.270.018	0	SNÍMACÍ MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	ELGO	1



Cílo 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

7.44. Válec upínací / Fixing cylinder / Spannzylinder



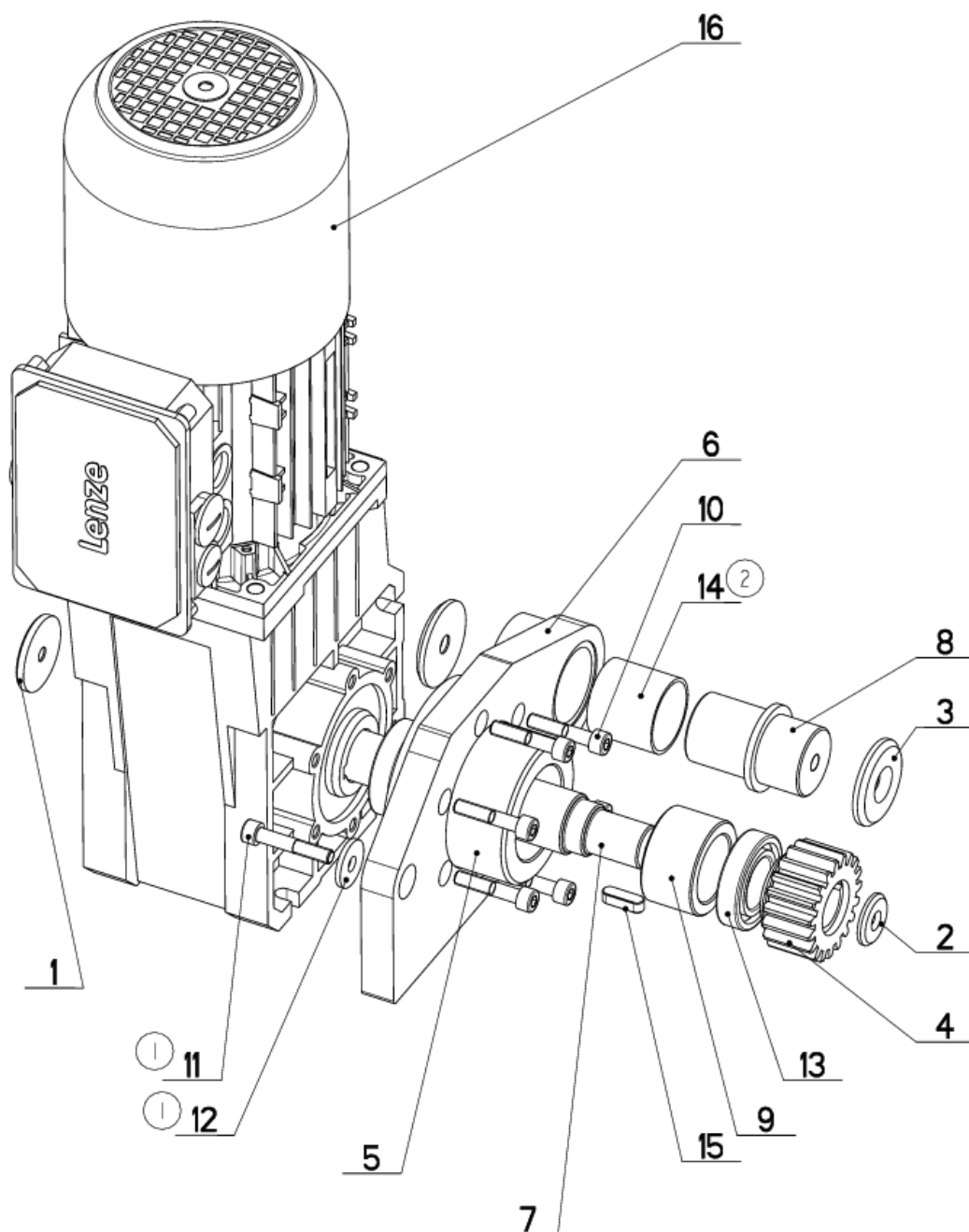
NAZEV SESTAVY VALEC UPINACI	CISLO SESTAVY 201.W357-010	STROJ H-BV
	Konstruoval: MUSIL	
	Datum: 05. 01.2011	
	Meritko: 1:5	

7.45. Kusovník / Stückliste / Piece list – Válec upínací / Fixing cylinder / Spannzylinder

Císlo Sešlavy 201.W357-010		Ver. I	Název sestavy VALEC UPÍNAČI/FIXING CYLINDER/SPANNZYLINDER		
Poz.	Objednáci číslo	Ver.	Název položky	Rozmer	Ks
1	30.1807-001	I	VÍKO / COVER / DECKEL	D 70	I
2	30.3407-103	I	REDUCE / REDUCTION / ADAPTOR / REDUKTION	TYC 17	I
3	30.W357-011	0	VALEC / ROLLER / ZYLINDER	TRUBKA 73/63	I
4	30.W357-015	0	PISTNICE / PISTON ROD / KOLBENSTANGE	TYC 20	I
5	30.W457-012	I	VÍKO / COVER / DECKEL	d 65	I
6	30.W457-014	0	PIST / PISTON / KOLBEN	D 65	I
7	90.101.55.003	0	MATICE / NUT / MUTTER	MATICE M16	2
8	90.150.50.009	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	PODLOŽKA 17	I
9	92.002.001	0	SROUBENÍ PRÍME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	GES 08LR	2
10	95.170.003	0	HLAVICE KLOUBOVÁ / /	INA GIR17-UK	I
11	95.700.003	0	POUZDRO / SLEEVE / BÜCHSE	20x15	I
12	95.800.026	0	SEGR HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTINÝ KROUZEK 72	2
13	95.801.011	0	SEGR DÍRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTINÝ KROUZEK 63	2
14	95.801.012	0	SEGR DÍRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTINÝ KROUZEK 65	I
15	96.001.015	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	56x3.55	2
16	96.002.020	0	KROUZEK O DYNAMICKÝ / DYNAMIC O RING / O-RING DYNAMISCH	56x3.5 NBR 70SH	I
17	96.041.002	0	TESNENÍ / SEALING / DICHTUNG	601-20x28x5	I
18	96.060.002	0	KROUZEK STÍRAČI / SCRAPER RING / ABSTREIFRING	20x28	I
19	96.082.002	0	TESNENÍ / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	I

I.ZRUS. 1xTESNENÍ 96.082.002. 290/ZM003 8.1.2019 SZABARI

7.46. Pohon / Antrieb / Drive



NAZEV SESTAVY POHON	CÍSLO SESTAVY 201.W450-010	STROJ IND.360,460DGANC
	Konstruoval: MUSIL	
	Datum: 06. 02.2014	
	Meritko: 33:100	

7.47. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive

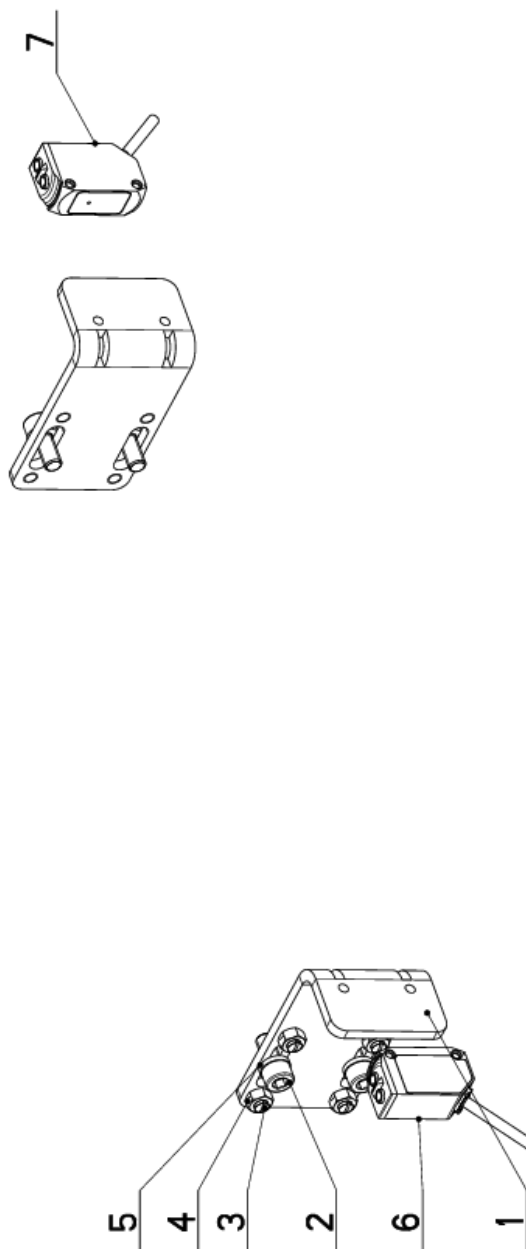
Císlo Sestavy 201.W450-010		Ver. 2	Název sestavy POHON/DRIVE /ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1201-465	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 45	1
2	30.1514-503	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	P 4x30	1
3	30.2908-001	1	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	d 50	2
4	30.W350-014	0	KOLO OZUBENÉ / COG WHEEL / ZAHNRAD		1
5	30.W450-011	0	PŘÍRUBA / FLANGE / FLANSCH	d 120	1
6	30.W450-012	0	PŘÍRUBA / FLANGE / FLANSCH		1
7	30.W450-013	0	HRDEL / SHAFT / WELLE	d 35	1
8	30.W450-015	3	ČEP / LUG / BOLZEN	d 50	1
9	30.W450-016	1	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 55x8	1
10	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSHSCRAUBE	M8x40	6
11	90.001.25.037	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSHSCRAUBE	M8x45	1
12	90.151.50.005	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 8	1
13	95.001.009	0	LOŽISKO / BEARING / LAGER	6006 2RS	2
14	95.700.006	0	POUZDRO / SLEEVE / BÜCHSE	40x40	1
15	95.810.007	0	PÉRO TESNÉ / TIGHT SPRING / PASSFEDER	PÉRO 8x7x25	3
16	99.003.014	0	PREVODOVKA S MOTOREM / TRANSMISSION WITH MOTOR / GETRIEBE MIT MOTOR	GKR05	1

1. ZRUSEN SROUB 30.W450-017 A NAHR.M8x45(90.001.25.037), ZRUS.DORAZ 30.W450-018 A NAHR.PODLOŽKA VELKOPLOŠNÁ 9x28x3 (90.151.50.005), ZRUS.MATICE M12(90.101.55.006). 020/ZM023 6.2.2014 SLEZACKOVA
2. ZRUSENO POUZDRO 95.700.025 A NAHR.95.700.006. 273/ZM031 24.1.2018 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

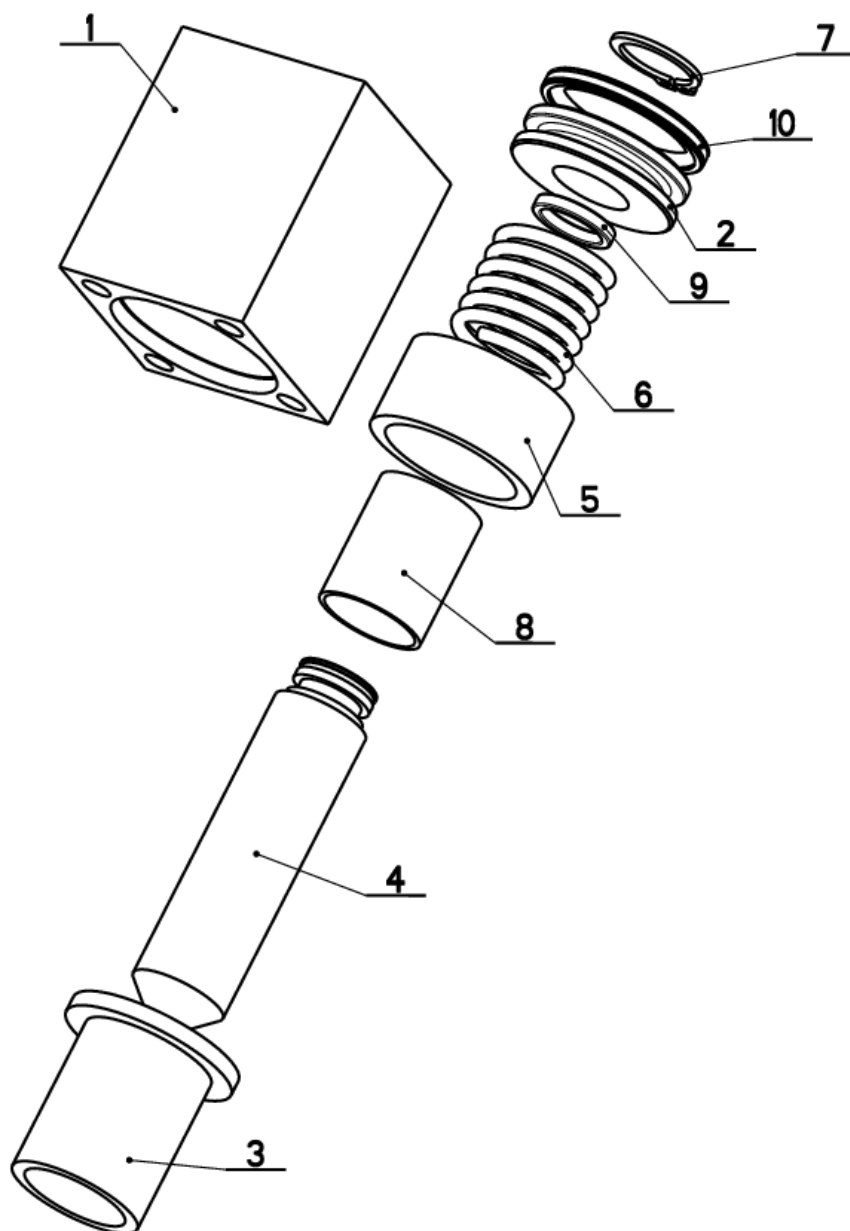
7.48. Závora optická / Lichtschränke / Optical Gate

Císlo Sestavy 201.W4514-010		Ver. 0	Název sestavy ZAVORA OPTICKA/OPTICAL GATE/LICHTSCHRANKE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.W4514-011	0	PLECH / HOLDER / HALTER	P 4x44	2
2	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	4
3	90.002.20.005	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x10	4
4	90.100.55.003	0	MATICE / NUT / MUTTER	MATICE _ M5	4
5	90.163.00.012	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	NORD-LOCK	4
6	91.401.030	0	SNIMAC OPTICKÝ / OPTICAL SENSOR / OPTISCHER SENSOR	06E701	1
7	91.401.031	0	SNIMAC OPTICKÝ / OPTICAL SENSOR / OPTISCHER SENSOR	06S701	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

7.49. Válec pomocný/ Auxiliary cylinder/ Hilfszylinder

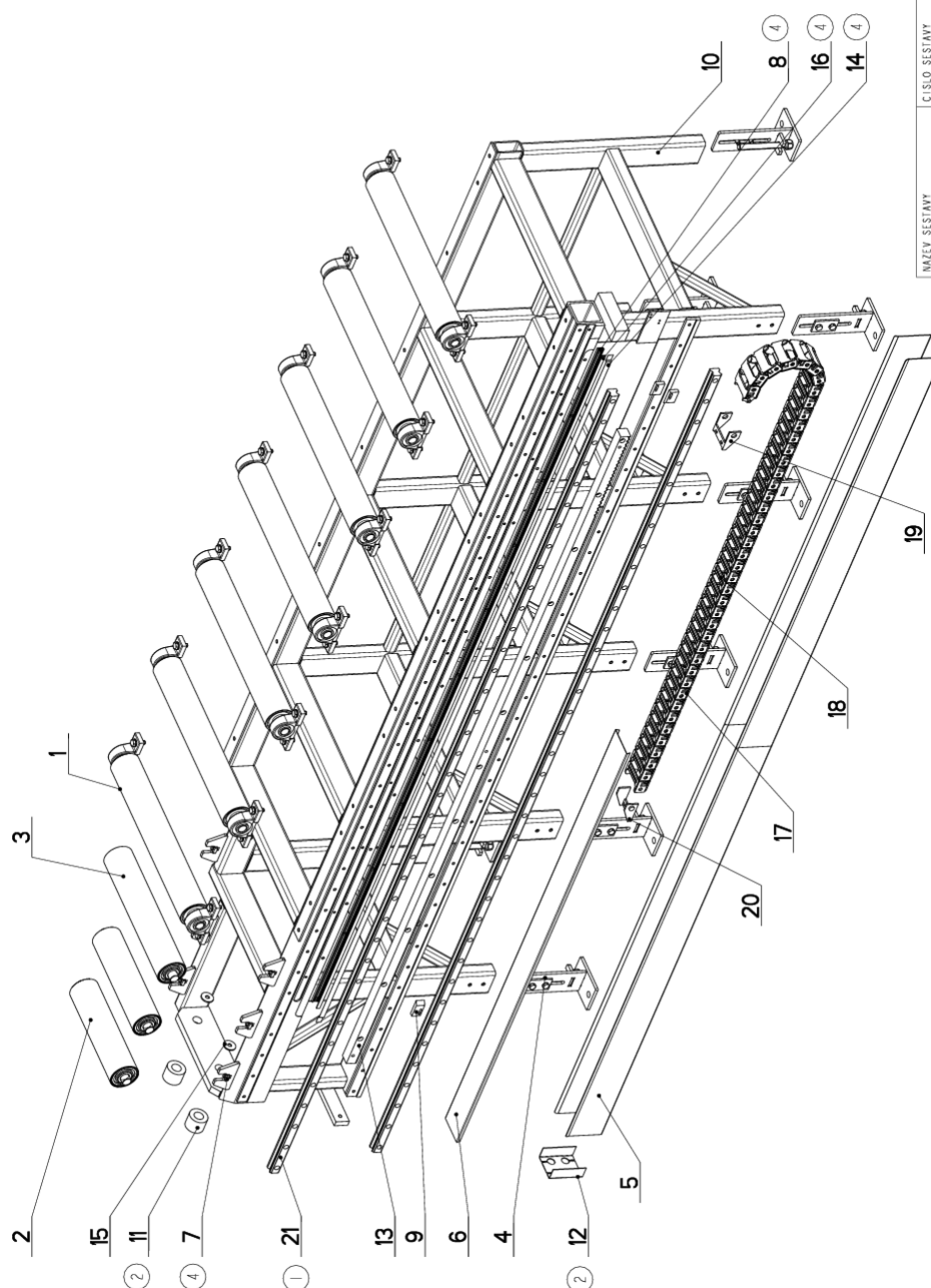


NAZEV SESTAVY VALEC POMOCNY	CISLO SESTAVY 201.W457-020	STROJ H-BV
	Konstruoval: &konstruoval	
	Datum: 17. 09.2010	
	Meritko: 1:1	

7.50. Kusovník / Stückliste / Piece list –
Válec pomocný/ Auxiliary cylinder/ Hilfszylinder

Cislo Sestavy 201.W457-020		Ver. 0	Název sestavy VALEC POMOCNY/AUXILIARY CYLINDER/HILFSZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.4307-501	1	KOSTKA / CUBE / WÜRFEL	HR 40 x 40	1
2	30.4307-503	1	PIST / PISTON / KOLBEN	TYC 35	1
3	30.4307-504	1	ZATKA / PLUG / STOPFEN	TYC 35	1
4	30.4307-506	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 18	1
5	30.4307-507	0	KROUZEK / RING / RING	TR 32 x 3	1
6	30.4307-508	0	PRUŽINA / SPRING / FEDER	2.5x23x38x6.5	1
7	95.800.006	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUFEN	POJISTNÝ KROUZEK 15	1
8	95.700.019	0	POUZDRO / SLEEVE / BÜCHSE	18x25	1
9	96.002.006	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	12x2	1
10	96.900.004	0	TESNENÍ KOMBINOVANÉ / COMBINATION SEALING / KOMBIDICHTUNG		1

7.51. Trať / Bahn / Conveyor – 2300 mm



NAZEV SESTAVY TRAT	ČÍSLO SESTAVY 201.W360-100	STROJ IN360DGA2300
Konstruoval: MUSIL		
Datum: 27. 03. 2017		
Meritko: 1:10		

7.52. Kusovník / Stückliste / Piece list – Trať / Bahn / Conveyor – 2300 mm

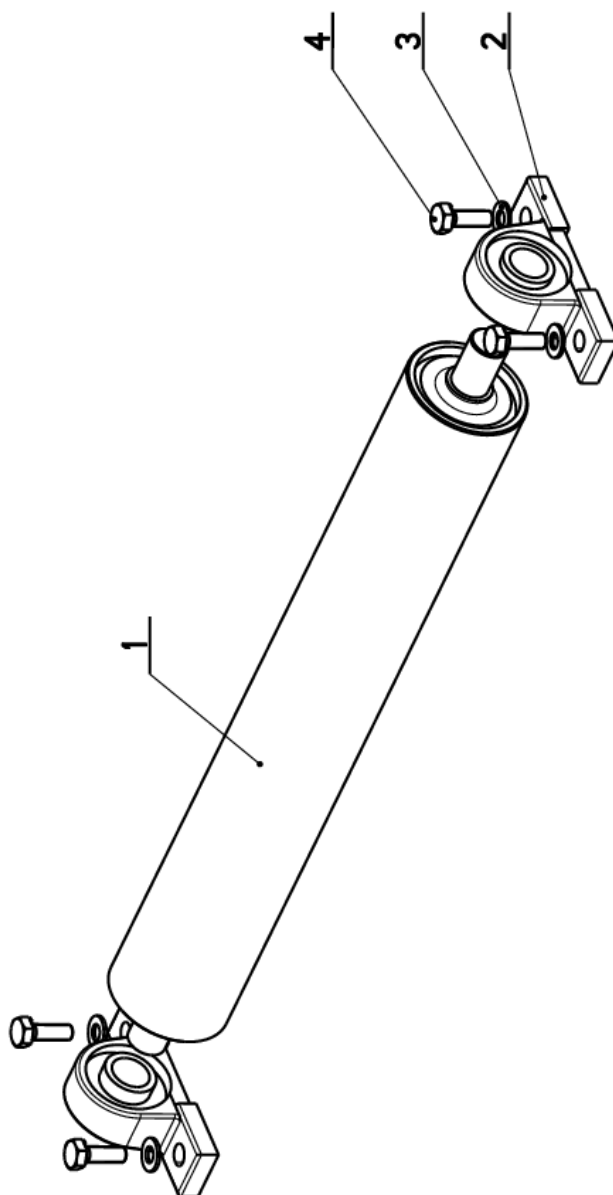
Číslo Sestavy 201.W360-100		Ver. 4	Název sestavy TRAT/TRACK/BAHN			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	201.1514-520	0	VALEC / ROLLER / ZYLINDER		7	
2	201.W370-010	0	VALEČEK / CYLINDER / ROLLE		2	
3	201.W370-020	0	VALEČEK / CYLINDER / ROLLE		1	
4	201.W460-005	0	NOHA / LEG / STÄNDER		10	
5	30.1503-511	2	KORYTO / CHANNEL / RINNE	P 1,5x297	2	
6	30.1503-521	3	VÍKO / COVER / DECKEL	P 1x109	1	
7	30.1517-841	4	MATICE / NUT / MUTTER	P 8x19	6	
8	30.2TL311-002	4	PROFIL / PROFILE / PROFIL		1	
9	30.E462-006	2	DOBŮZ / STOP PIECE / ANSCHLAG	TYC25x10	3	
10	30.W360-101	2	TRAT / TRACK / BAHN		1	
11	30.W360-102	0	DISTANC / DISTANCE / DISTANZ	TR 51.5x12.5	2	
12	30.W360-103	0	VÍKO / COVER / DECKEL	P 1,5x98	1	
13	30.W460-002	0	HŘEBEN / COMB / KAMM	OZ.TYC30x30_3000	1	
14	55.800.009	4	PLECH / PLATE / BLECH	P 0,3x15	1	
15	90.151.50.001	0	PODLOŽKA / WASHER / UNTERLEGSCHEIBE	PODLOŽKA 10	2	
16	91.271.002	4	PASKA MAGNETICKÁ / MAGNETIC TAPE / MAGNETBAND	MB 20.50.32.0	1	
17	99.170.069	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	MP 3002.5 R 095	42	
18	99.170.070	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	DE 3002.5	42	
19	99.171.013	0	KONCOVKA / END / ENDSTÜCK		1	
20	99.171.014	0	KONCOVKA / END / ENDSTÜCK		1	
21	99.200.275	1	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	WSA 30R 3000 20/20N	2	

1. ZRUS.LINEARNÍ VEDENÍ (HIWIN) 99.200.062 A NAHR.99.200.275(PMI). 056/ZMI45 3.5.2012 SLEZACKOVA
2. PRIDAN DISTANC 30.W360-102,VÍKO 30.W360-103. 239/ZM304 26.10.2012 SLEZACKOVA
3. ZRUS.VÍKO 30.1503-515 A NAHR.30.1503-521. 125/ZMI59 2.5.2013 SLEZACKOVA
4. PRIDAN PROFIL 30.2TL311-002, ELGO PASKA 91.271.002, KRYCI PLECH 55.800.009 A MATICE 30.1517-841 (6ks);
27.3.2017 092/zm.113 HLADIL

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

7.53. Válec / Roller / Zylinder – 2300 mm

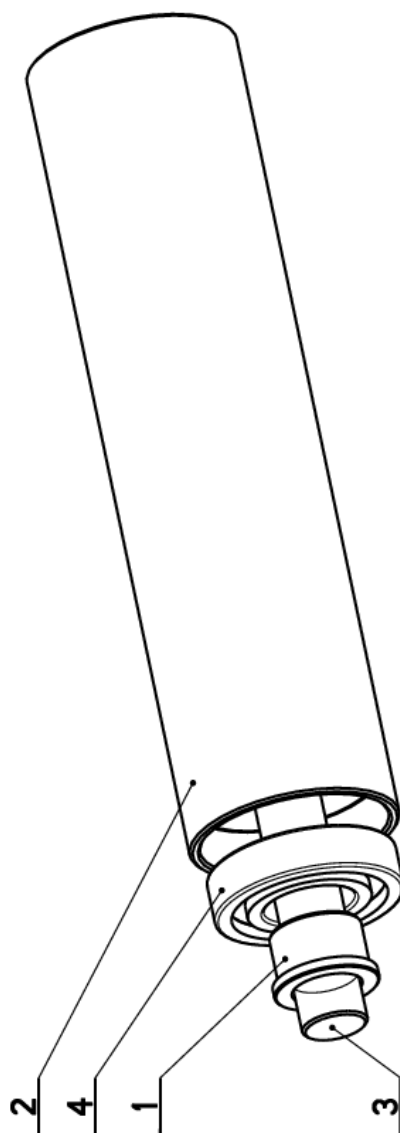
Cislo Sestavy 201.1514-520		Ver. 0	Nazev sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednaci cislo	Ver.	Nazev položky	Rozmer	Ks
1	30.1514-502	1	VALEC / ROLLER / ZYLINDER		1
2	95.160.001	0	LOŽISKO / BEARING / LAGER	UCP 205	2
3	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	4
4	90.401.02.002	0	SROUB ŠHRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X30	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

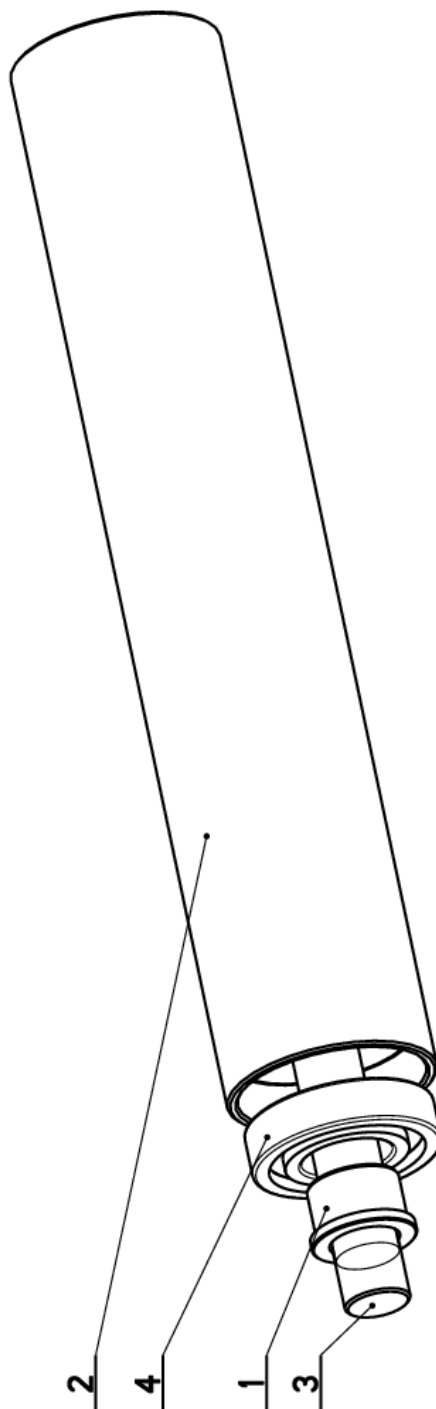
7.54. Váleček / Cylinder / Rolle 1 – 2300 mm

Císlo Sestavy 201.W370-010		Ver. 0	Název sestavy VALEČEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	2
2	30.W370-011	0	TRUBKA / TUBE / ROHR	Tr 80x5	1
3	30.W370-012	0	ČEP / LUG / BOLZEN	d 25	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2



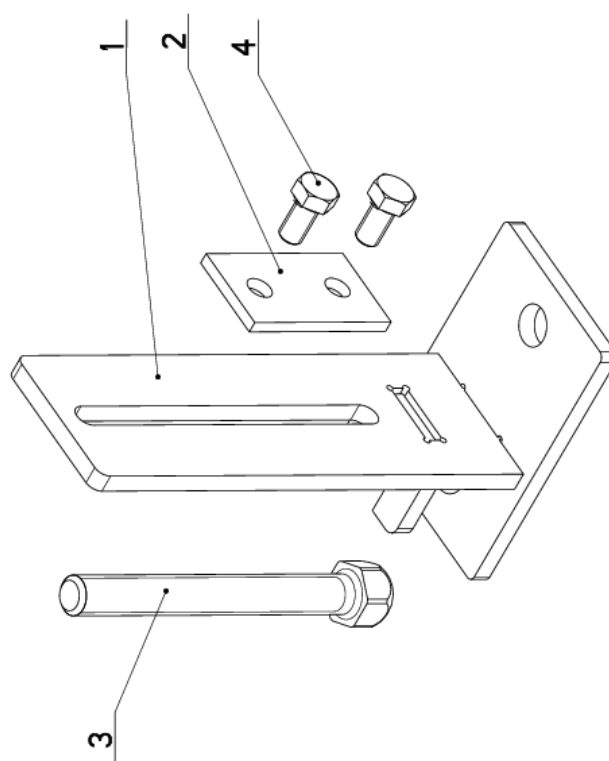
7.55. Váleček / Cylinder / Rolle 2 – 2300 mm

Císlo Sestavy 201.W370-020		Ver. 0	Název sestavy VALEČEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	2
2	30.W370-021	0	TRUBKA / TUBE / ROHR	Tr 80x5	1
3	30.W370-022	0	CEP / LUG / BOLZEN	d 25	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2



7.56. Noha / Leg / Stander – 2300 mm

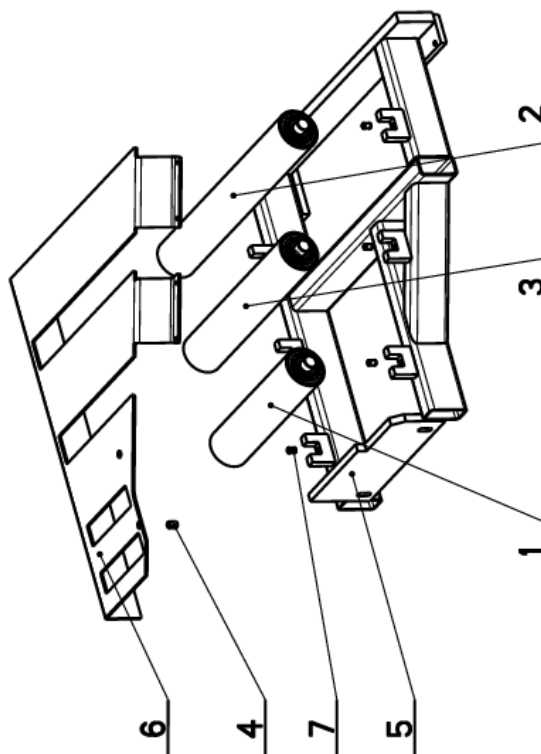
Cislo sestavy 201.W460-005		Ver. 0	Název sestavy NOHA/LEG/STÄNDER	
Poz.	Objednací číslo	Ver.	Název položky	Ms
1	30.1515-690	2	NOHA / LEG / STÄNDER	I
2	30.1515-681	0	PRÍLOŽKA / STRAP / LASCHE	I
3	31.1514-102	0	SROUB / BOLT / SCHRAUBE	I
4	90.005.55.023	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	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

7.57. Propoj. díl / Verbindungsteil / Connecting part 2300 mm

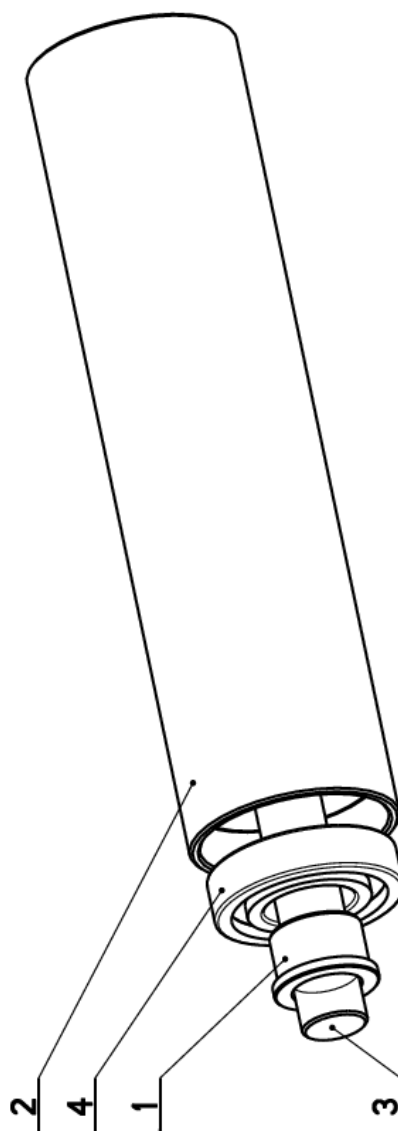
Cislo Sestavy 201.W380-200		Ver. 0	Název sestavy DÍL PROPOJOVACÍ/CONNECTING PART/VERBINDUNGSTEIL		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.W370-010	0	VALEČEK / CYLINDER / ROLLE		1
2	201.W370-030	0	VALEČEK / CYLINDER / ROLLE		1
3	201.W370-040	0	VALEČEK / CYLINDER / ROLLE		1
4	30.W380-008	0	DISTANČ / DISTANCE / DISTANZ	TR 12x2	1
5	30.W380-201	0	TRAT / TRACK / BAHN		1
6	30.W380-202	0	PLECH / PLATE / BLECH	P4x678	1
7	90.002.2D.014	0	SROUB STAVEČÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M10X16	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

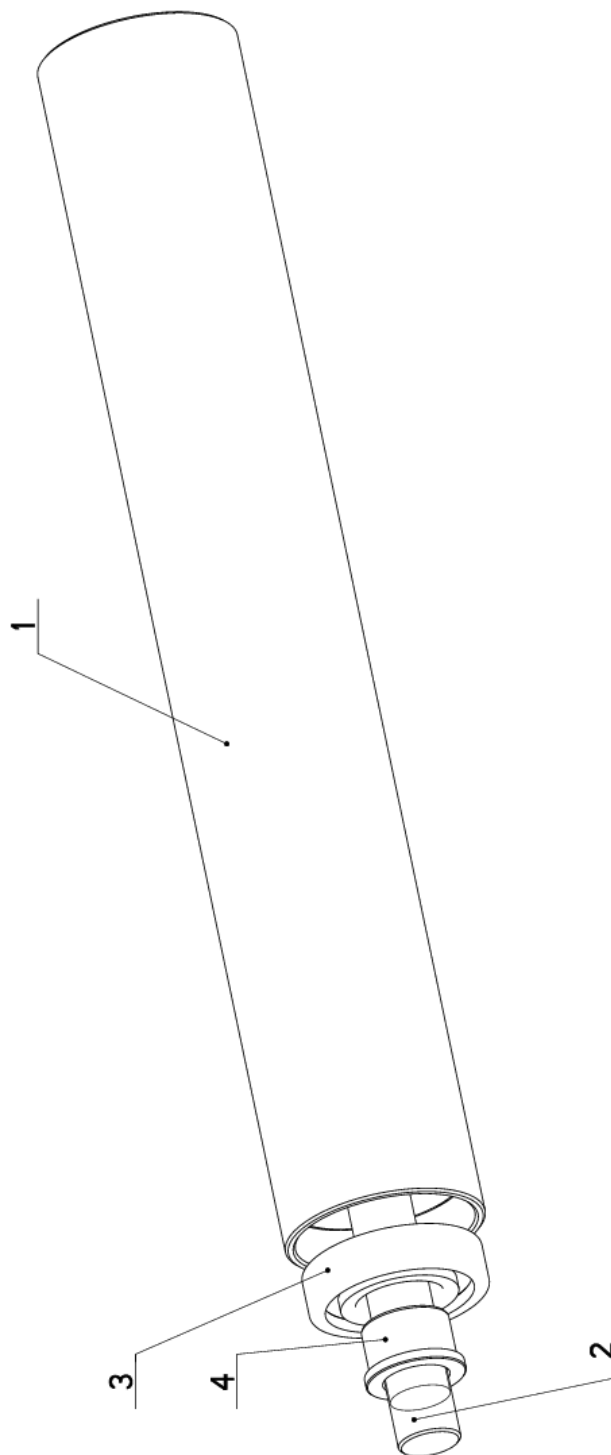
7.58. Váleček / Cylinder / Rolle 1 – 2300 mm

Císlo Sestavy 201.W370-010		Ver. 0	Název sestavy VALEČEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	2
2	30.W370-011	0	TRUBKA / TUBE / ROHR	Tr 80x5	1
3	30.W370-012	0	ČEP / LUG / BOLZEN	d 25	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2



7.59. Váleček / Cylinder / Rolle 2 – 2300 mm

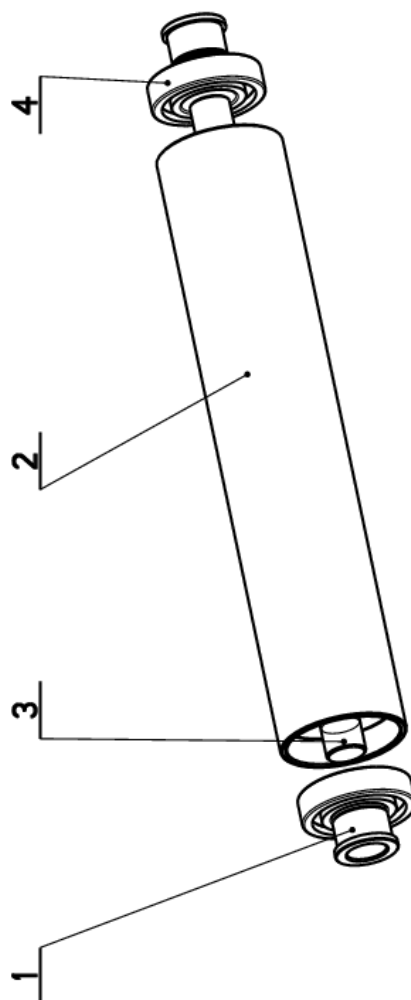
Císlo Sestavy 201.W370-030		Ver. 0	Název sestavy VÁLEČEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.W370-031	1	TRUBKA / TUBE / ROHR	Tr 80x5	1
2	30.W370-032	0	ČEP / LUG / BOLZEN	d 25	1
3	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2
4	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	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

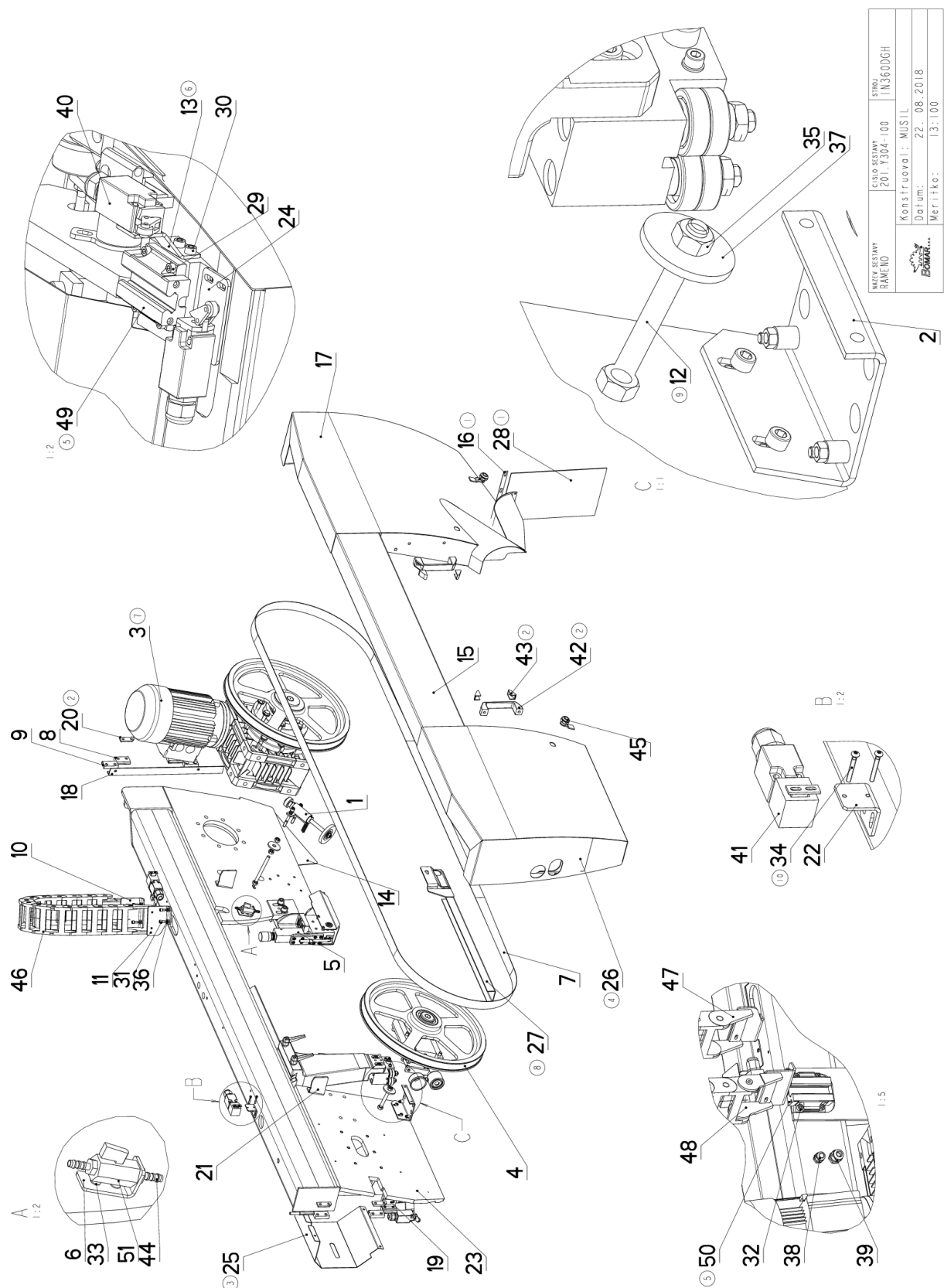
7.60. Váleček / Cylinder / Rolle 3 – 2300 mm

Cislo Sestavy 201.W370-040		Ver. 0	Název sestavy VALEČEK / CYLINDER / ROLLE	
Poz.	Objednací číslo	Ver.	Název položky	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	2
2	30.W370-041	0	TRUBKA / TUBE / ROHR	1
3	30.W370-042	0	ČEP / LUG / BOLZEN	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	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

7.61. Rameno / Sägerahmen / Saw arm



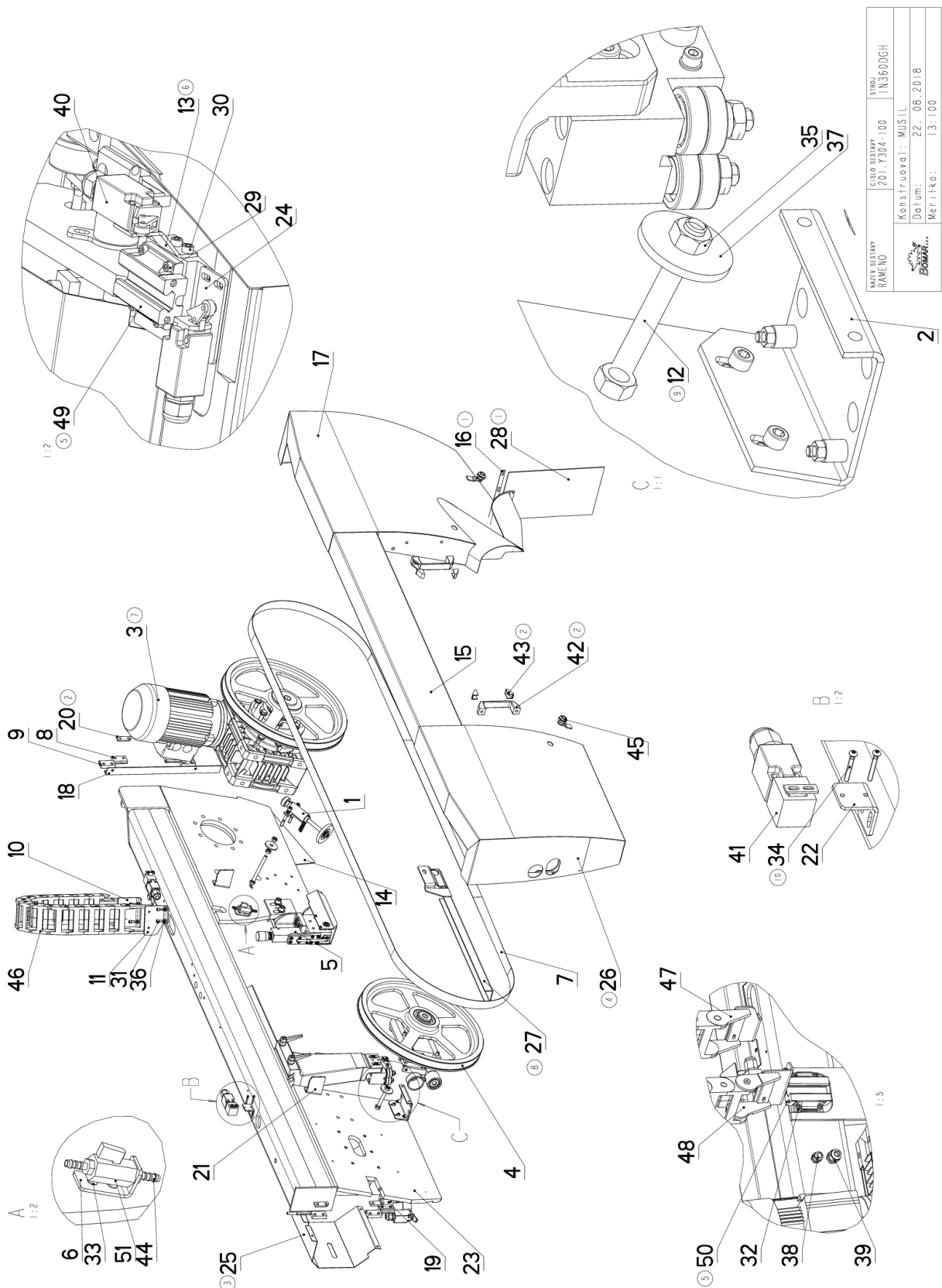
7.62. Kusovník / Stückliste / Piece list – Rameno / Sägerahmen / Saw arm

Císlo Sestavy 201.Y304-100		Ver. 10	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)	1	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 3xT6	1
7	30.2904-913	0	PAS PÍLOVÝ / SAW BELT / SÄGEBAND	4780x32(4)x1,1	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	2	DRŽÁK / HOLDER / HALTER	P 4x100	1
11	30.1304-014	1	DRŽÁK / HOLDER / HALTER	P 4x100	1
12	30.Y304-002 (9)	0	TYC ZAVÍTOVÁ / THREADED POLE / GEWINDESTANGE	M10	2
13	30.Y304-014 (6)	0	DRŽÁK / HOLDER / HALTER	P 3x30	1
14	30.Y304-027	0	KRYT / COVER / ABDECKUNG	P 2x114	1
15	30.Y304-029	0	KRYT PASU / BELT COVER / BANDABDECKUNG		1
16	30.Y304-030 (1)	0	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)	0	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	9	RAMENO /		1
24	30.Y304-107	0	DRŽÁK / HOLDER / HALTER	P 3x40	1
25	30.Y304-115 (3)	0	KRYT NAPÍNÁNÍ / TENSIONING COVER / BANDSPANNUNGSABDECKUNG	P 1,5x244	1
26	30.Y304-132 (4)	0	KRYT RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
27	30.Y304-159 (8)	1	KRYT PASU / BELT COVER / BANDABDECKUNG		1
28	31.PK02-054 (1)	0	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	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X14	4
32	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X30	8
33	90.013.27.003	0	SROUB / BOLT / SCHRAUBE	M5X10	2
34	90.013.92.104 (10)	0	SROUB PULKATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M4x30	4

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

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

7.63. Rameno / Sägerahmen / Saw arm



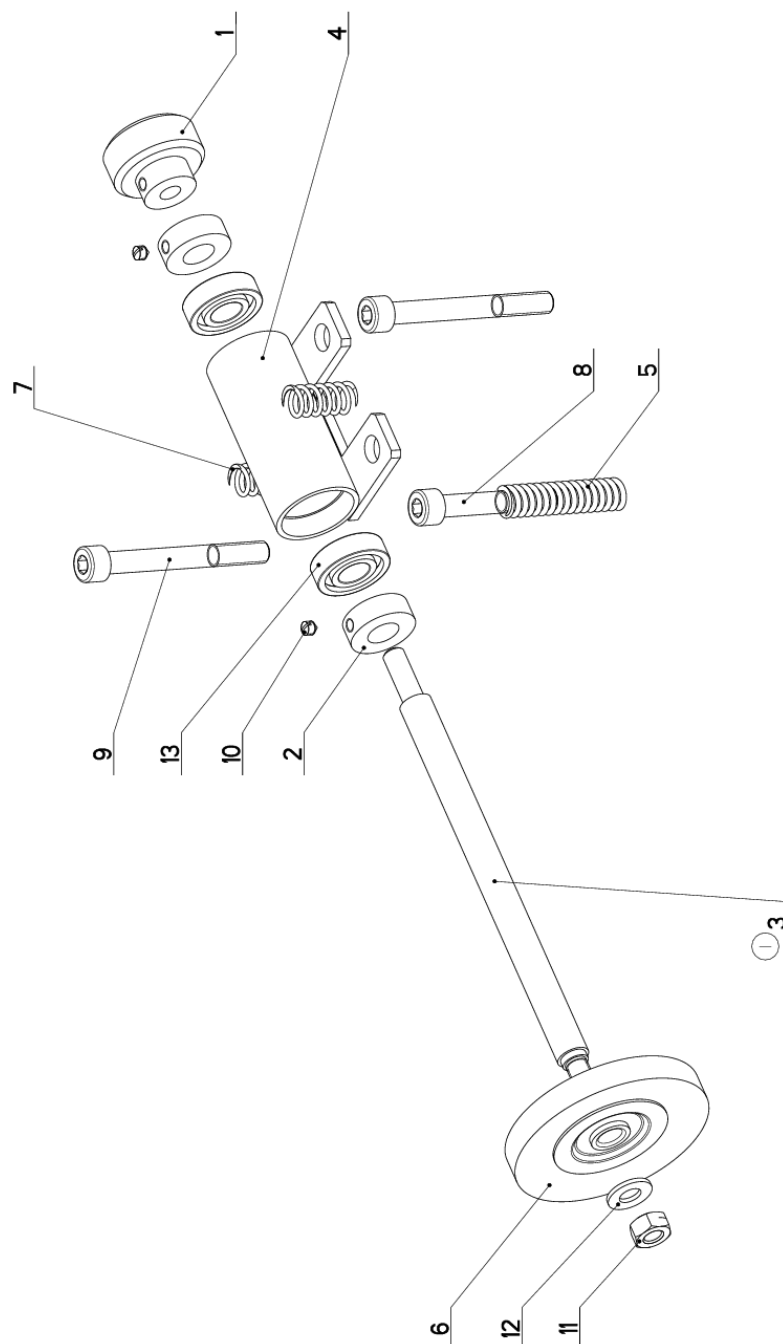
7.64. Kusovník / Stückliste / Piece list – Rameno / Sägerahmen / Saw arm

35	90.100.55.006	0	MATICE / NUT / MUTTER	MATICE - M10	6
36	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 6,4	4
37	90.151.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 12	2
38	91.070.011	0	VYVODKA / BUSHING / TÜLE	M16x1,5	1
39	91.070.012	0	VYVODKA / BUSHING / TÜLE	M20x1,5	1
40	91.173.010	0	SPINAC KONC.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	PZ-FR605-M2	2
41	91.173.012	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	OKS8-2xNC	2
42	94.012.001 (2)	0	RUKOJET / HANDLE / GRIFF		2
43	94.012.002 (2)	0	ZATKA / PLUG / STOPFEN		4
44	94.202.002	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	REDUKCE 6/R1/4"	2
45	99.104.002	0	ZAMEK / LOCK / SCHLOSS	ZAMEK C INSKY	2
46	99.170.001	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	0555.030.075.100	14
47	99.173.001	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	KONCOVKA VNEJ	1
48	99.173.002	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	KONCOVKA VNIT	1
49	99.201.045 (5)	0	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA20E SS FO N	1
50	99.201.058 (5)	0	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	MSA30E SS FO N	2
51	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
10. ZRUS. SROUBENI 90.150.50.002, 90.012.50.007 A NAHR. 4xSROUB M4x30 90.013.9Z.104. 171/ZM290 22.8.2018 SZABARI

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

7.65. Kartáč / Brush / Bürste



NAZEV SESTAVY KARTÁČ	CÍSLO SESTAVY 201.9114-300	STROJ EC0260
Konstruoval: STASTNA		
Datum: 12. 02. 2015		
Meritko: 7:10		

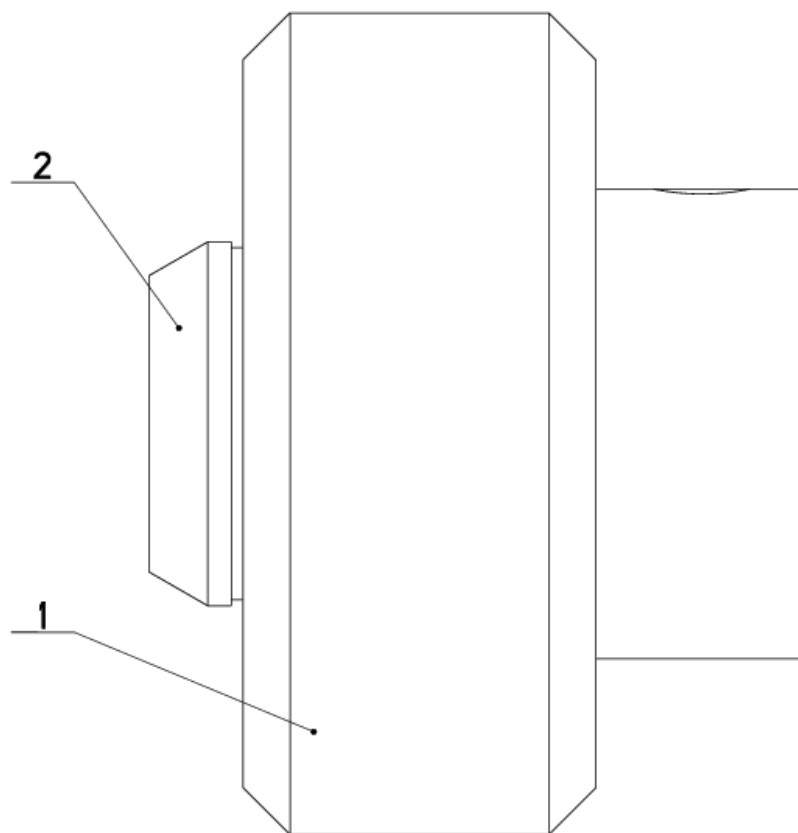
7.66. Kusovník / Stückliste / Piece list – Kartáč / Brush / Bürste

Císlo 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	DRŽAK / 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

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

7.67. Kolečko / Wheel / Rolle



NAZEV SESTAVY KOLECKO	ČÍSLO SESTAVY 201.0814-204	STROJ STG440
	Konstruoval:	
	Datum:	20. 04.2018
	Meritko:	4:1

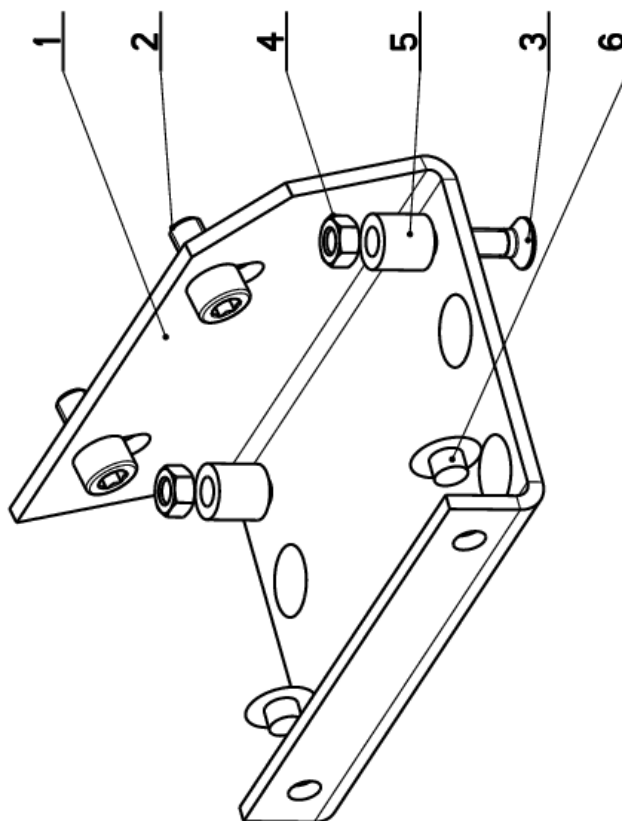
7.68. Kusovník / Stückliste / Piece list – Kolečko / Wheel / Rolle

Císlo Sestavy 201.0814-204		Ver. 0	Název sestavy KOLEČKO/WHEEL/ROLLE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr
1	30.0814-204.1	0	KOLEČKO / /	d 35 I
2	30.0814-204.2	I	NABOJ / /	D 20 I

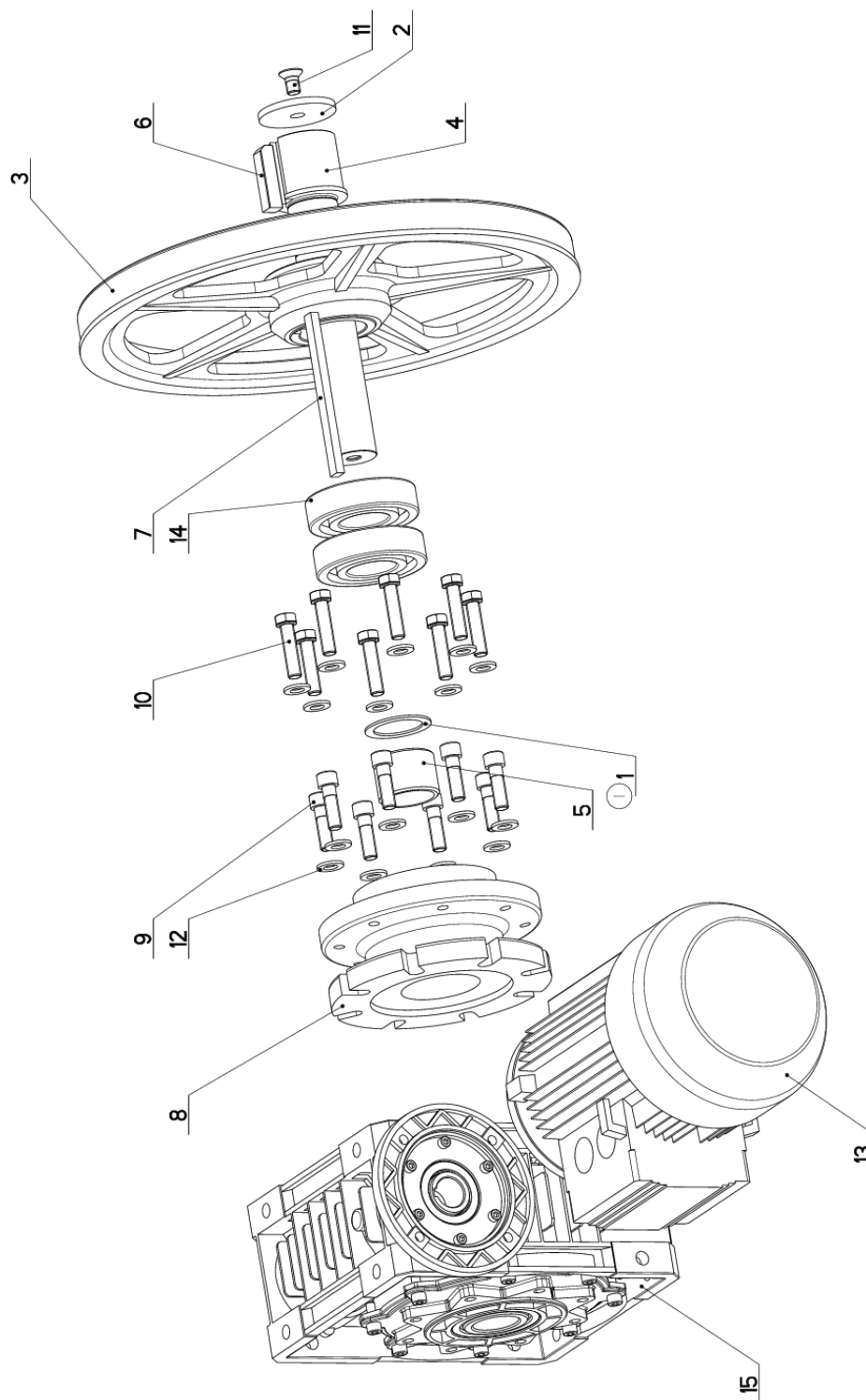
Císlo Sestavy/Number of assembly/Nummer der Baugruppe; Verze (Ver.)/Version/Version; Název sestavy/Assembly title/Name der Baugruppe; Pozice (Poz.)/Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.69. Vedení/ Guide / Backenführung

Cislo Sestavy 201.Y304-010		Ver. 0	Název sestavy VEDENÍ / GUIDE / BACKENFÜHRUNG		
Poz.	Objednací 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



7.70. Pohon / Antrieb / Drive



NAZEV SESTAVY POHON	CÍSLO SESTAVY 201.Y305-100	STROJ IN360
Konstruoval: MUSIL		
Datum: 14. 04. 2016		
Meritko: 3:10		

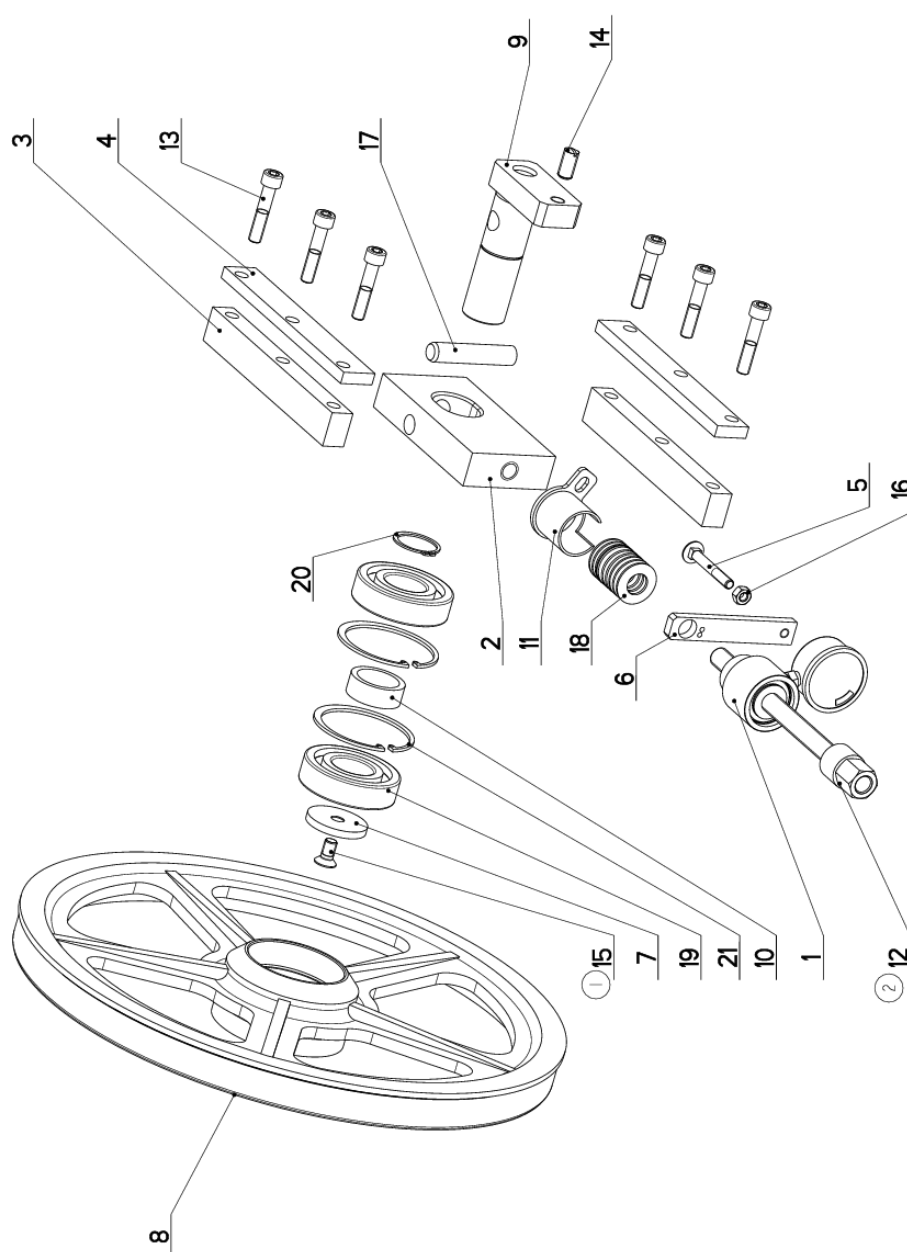
7.71. Kusovník / Stückliste / Piece list – Pohon / Antrieb / Drive

Císlo Sestavy 201.Y305-100		Ver. 1	Název sestavy POHON/DRIVE / ANTRIEB		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.0804-014 (1)	0	KROUZEK / /	P 2x60	1
2	30.1804-010	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	P 6x70	1
3	30.2904-003	3	KOLO HNACÍ / DRIVE WHEEL / ANTRIEBSRAD	ODLITEK	1
4	30.2904-004	2	HRDEL / SHAFT / WELLE	d 65	1
5	30.2904-005	0	DISTANC / DISTANCE / DISTANZ	TR 55x8	1
6	30.2904-006	0	PERO / SPRING / FEDER	HR 14x14	1
7	30.2904-008	1	PERO / SPRING / FEDER	HR 12x8	1
8	30.4405-052	0	PŘÍRUBA / FLANGE / FLANSCH	ODLITEK	1
9	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	8
10	90.005.55.045	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M12x50	8
11	90.011.27.009	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M12X20	1
12	90.150.50.007	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 13	16
13	91.001.053	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	MDERA 100-32pro	1
14	95.001.027	0	LOŽISKO / BEARING / LAGER	6309 2RS	2
15	99.002.040	0	PREVODOVKA SNEKOVÁ / WORM GEAR TRANSMISSION / SCHNECKENGETRIEBE	MU110 P100 B14	1

I. PRIDAN KROUZEK 30.0804-014, 024/ZM084 14.4.2016 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

7.72. Napínání pásu/ Sägebandspannung / Saw band tensing



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

7.73. Kusovník / Stückliste / Piece list – Napínání pásu/ Sägebandspannung / Saw band tensing

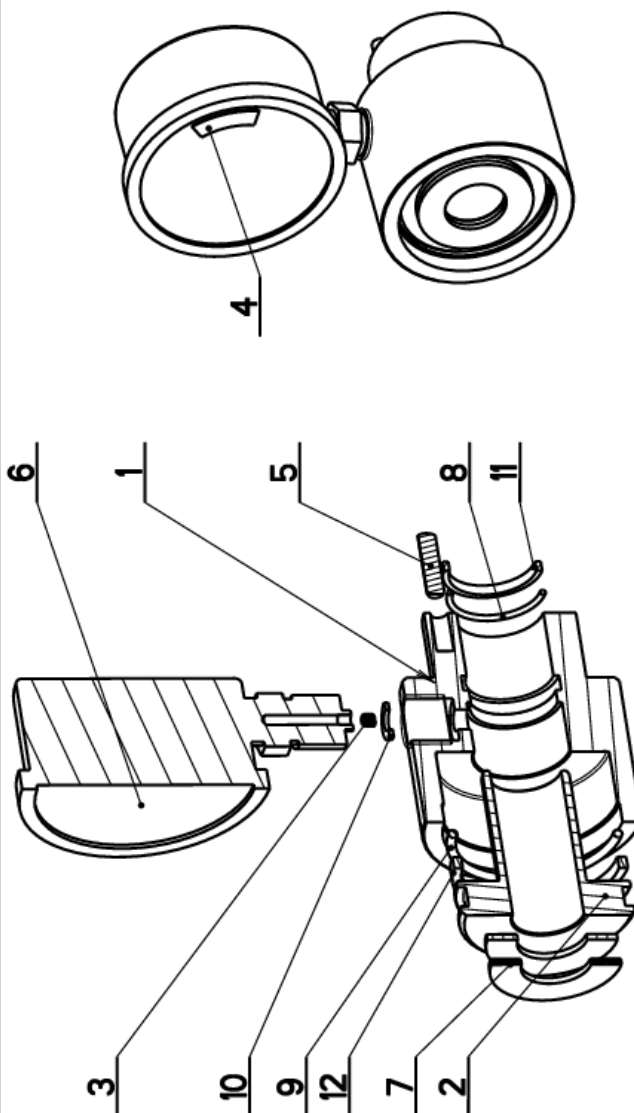
Císlo sestavy 201.Y308-000		Ver. 2	Název sestavy NAPÍNÁNÍ / TENSIONING / SPANNUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	202.2912-100	1	INDIKÁTOR NAPÍNÁNÍ / POWER INDICATOR / SPANNUNGSINDIKATOR	SESTAVA	1
2	30.0808-001	1	KOSTKA NAPÍNÁNÍ / TENSIONING CUBE / BANDSPANNUNGSWÜRFEL	80x30	1
3	30.0808-002	1	LISTA VODICÍ / LEAD TRIM / FÜHRUNGSLEISTE	30x20	2
4	30.0808-006	1	LISTA / TRIM / LEISTE	HR 30x10	2
5	30.0808-007	0	SROUB / BOLT / SCHRAUBE	M8x60	1
6	30.1708-004	4	DRŽÁK / HOLDER / HALTER	HR 20x8	1
7	30.2908-001	2	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	P6x50	1
8	30.2908-103	2	KOLO NAPÍNÁNÍ / TENSIONING WHEEL / UMLENKRAD	ODLITEK	1
9	30.4808-101	4	ČEP NAPÍNÁNÍ / TENSIONING LUG / SPANNUNGSBOLZEN		1
10	30.4808-103	1	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR 45x5	1
11	30.6908-102	2	DRŽÁK / HOLDER / HALTER		1
12	30.Y308-002	0	SROUB NAPÍNÁNÍ / TENSION BOLT / SCHRAUBE BANDSPANNUNG		1
13	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x50	6
14	90.002.20.013	0	SROUB STAVEČI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12x25	1
15	90.011.27.008	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	1
16	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE - M8	1
17	90.300.07.003	0	KOLÍK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHARTET	KOLÍK 16x80	1
18	90.350.07.002	0	PRŮŽINA TALIROVÁ / 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	1
21	95.801.013	0	SEGR DÍRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNÝ KROUZEK 80	2
1. LRUS, SROUB M12x20(90.011.27.009) A NAHR.M10x20(90.011.27.008). 110/ZM212 25.6.2012 SLEZACKOVA					
2. ZRUSEN SROUB NAPÍNÁNÍ 30.Y308-001 A NAHRAZENO 30.Y308-002. 216/ZM279 12.7.2019 SLEZACKOVA					

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

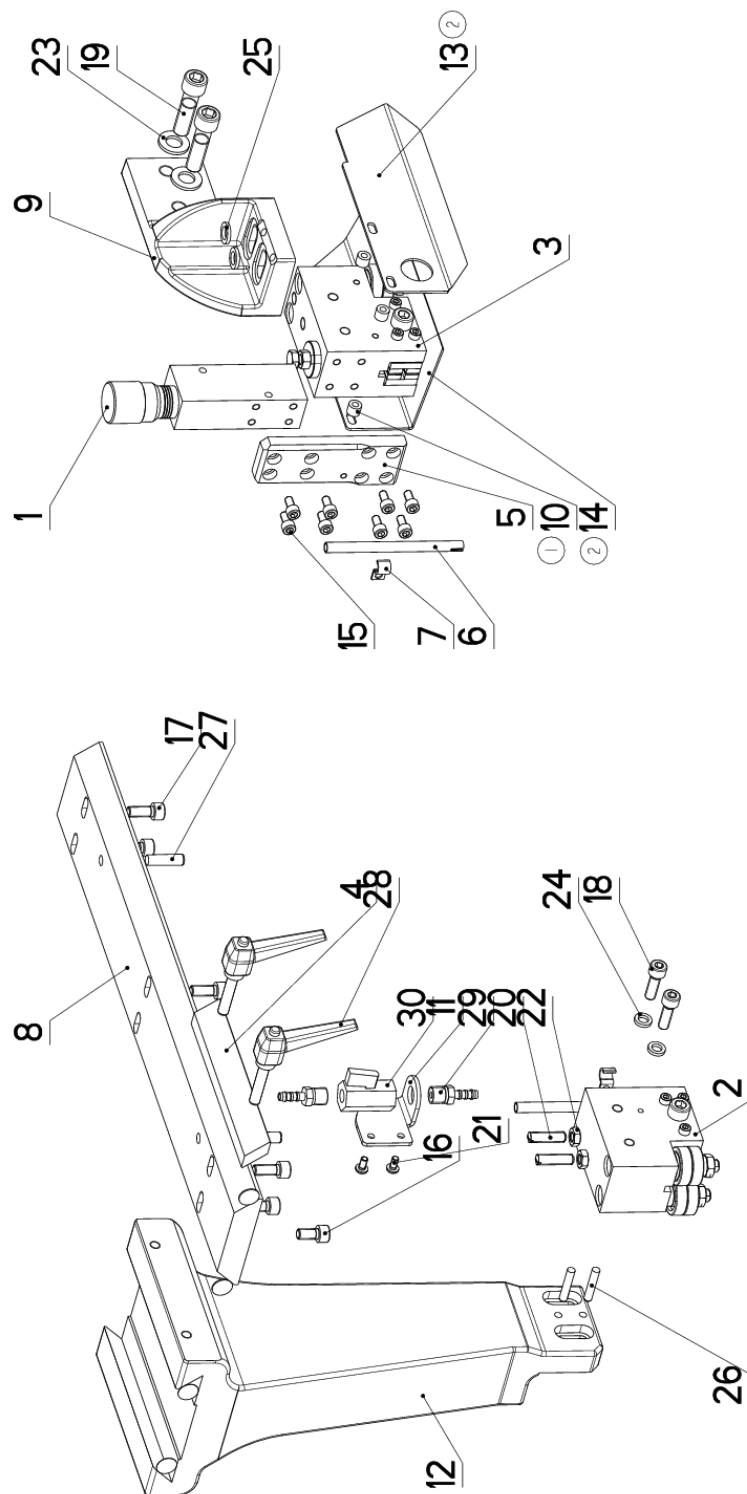
2. ZRUSEN SROUB NAPÍNÁNÍ 30.Y308-001 A NAHRAZENO 30.Y308-002. 216/ZM279 12.7.2019 SLEZACKOVA

7.74. Indikátor napínání pásu/ Power indikator / Spannungsindikator

Císlo Sestavy 202.2912-100		Ver. I	Název sestavy INDIKÁTOR NAPÍNÁNÍ / POWER INDICATOR / SPANNUNGSINDIKATOR		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2912-101	I	POUZDRO / SLEEVE / BÜCHSE	d 50	I
2	30.2912-102	I	POUZDRO / SLEEVE / BÜCHSE	d 42	I
3	30.1308-052	I	SROUB / BOLT / SCHRAUBE	M3x3	I
4	31.0512-103	0	SAMOLEPNA / STICKER / AUFKLEBER	SIPKA ZELENÁ	I
5	90.303.02.003	0	KOLÍK PRUŽNÝ / PIN / BOLZEN	KOLÍK 4x16	I
6	92.080.005	0	MANOMETR / MANOMETER / MANOMETER	d 63 - 250bar	I
7	95.750.001	0	KROUZEK KU / KU RING / KU-RING	16x1	2
8	96.002.061	0	KROUZEK O DYNAMICKÝ / DYNAMIC OBERSM6 / O-RING DYNAMISCH	ORAR00019-N70	I
9	96.002.062	0	KROUZEK O DYNAMICKÝ / DYNAMIC OBERSM6 / O-RING DYNAMISCH	ORAR00126-N70	I
10	96.082.004	0	KROUZEK CU TESNÍČI / SEAL RING / DICHTUNGSRING	KROUZEK CU 5/9	I
11	96.083.008	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	BUI300200-PT00	I
12	96.083.009	0	KROUZEK VODÍČI / LEAD RING / FÜHRUNGSRING	BG2000360-PT00	I



7.75. Vedení pásu / Sägebandführung / Saw band guiding



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

7.76. Kusovník / Stückliste / Piece list – Vedení pásu / Sägebandführung / Saw band guiding

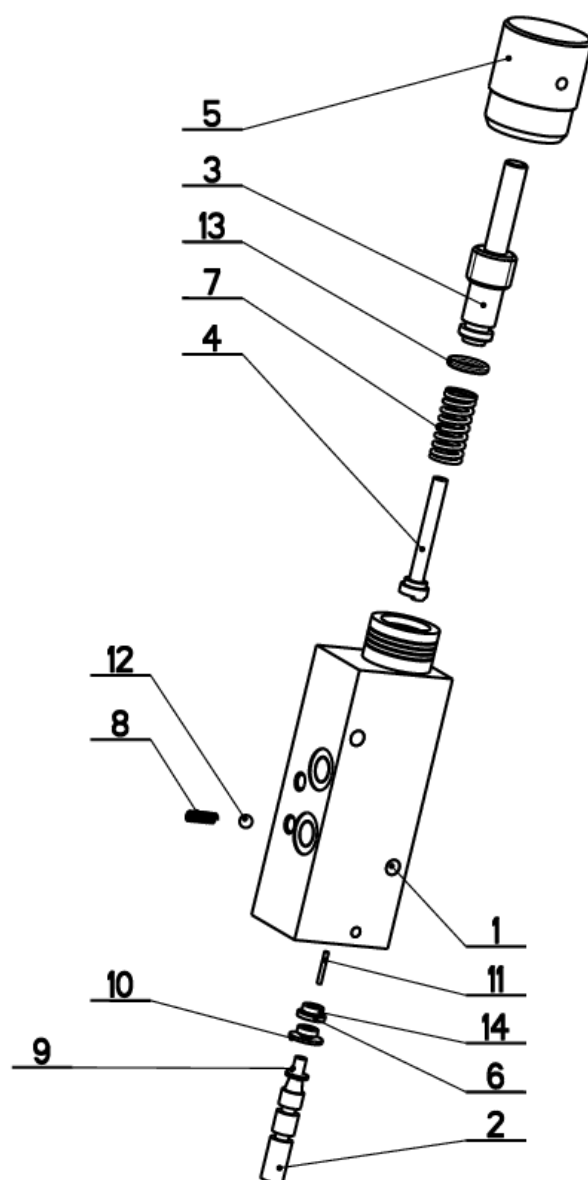
Císlo Sestavy 201.Y310-000		Ver. 2	Název sestavy VEDENÍ PASU/BELT GUIDE/SÄGEBANDFÜHRUNG		
Poz.	Objednáací číslo	Ver.	Název položky	Rozměr	Ks
1	201.2016-000	0	REGULACE PRÍTLAKU / PRESSURE REGULATION / SCHNITTDRUCKREGULATION		1
2	201.Y310-300	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
3	201.Y310-400	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
4	30.0810-011	0	LISTA TRECI / 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	DRZAK / HOLDER / HALTER	PL 5x10	2
8	30.9210-002	3	LISTA VODICI / LEAD TRIM / FÜHRUNGSLISTE	HR 90x20	1
9	30.Y310-003	1	DRZAK / HOLDER / HALTER		1
10	30.Y310-007 (1)	0	KROUZEK / RING / RING	TR 10x2,5	4
11	30.Y310-008	0	DRZAK / 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 STAVECI / 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	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	2
24	90.163.00.001	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	M8 NORD-LOCK	2
25	90.163.00.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	2
26	90.300.07.006	0	KOLIK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLIK 6x32	2
27	90.302.07.002	0	KUŽEL. KOLIK S ZAV. / TAPER PIN + THREAD / KEGELBOLZEN + GEWINDE	KOLIK 8x30	2
28	94.008.003	0	PAKA UPINACI / 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/ZMI89 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/ZMI14 23.5.2014 SLEZACKOVA

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

7.77. Regulace přitlaku / Pressure regulation / Schnittdruckregulation



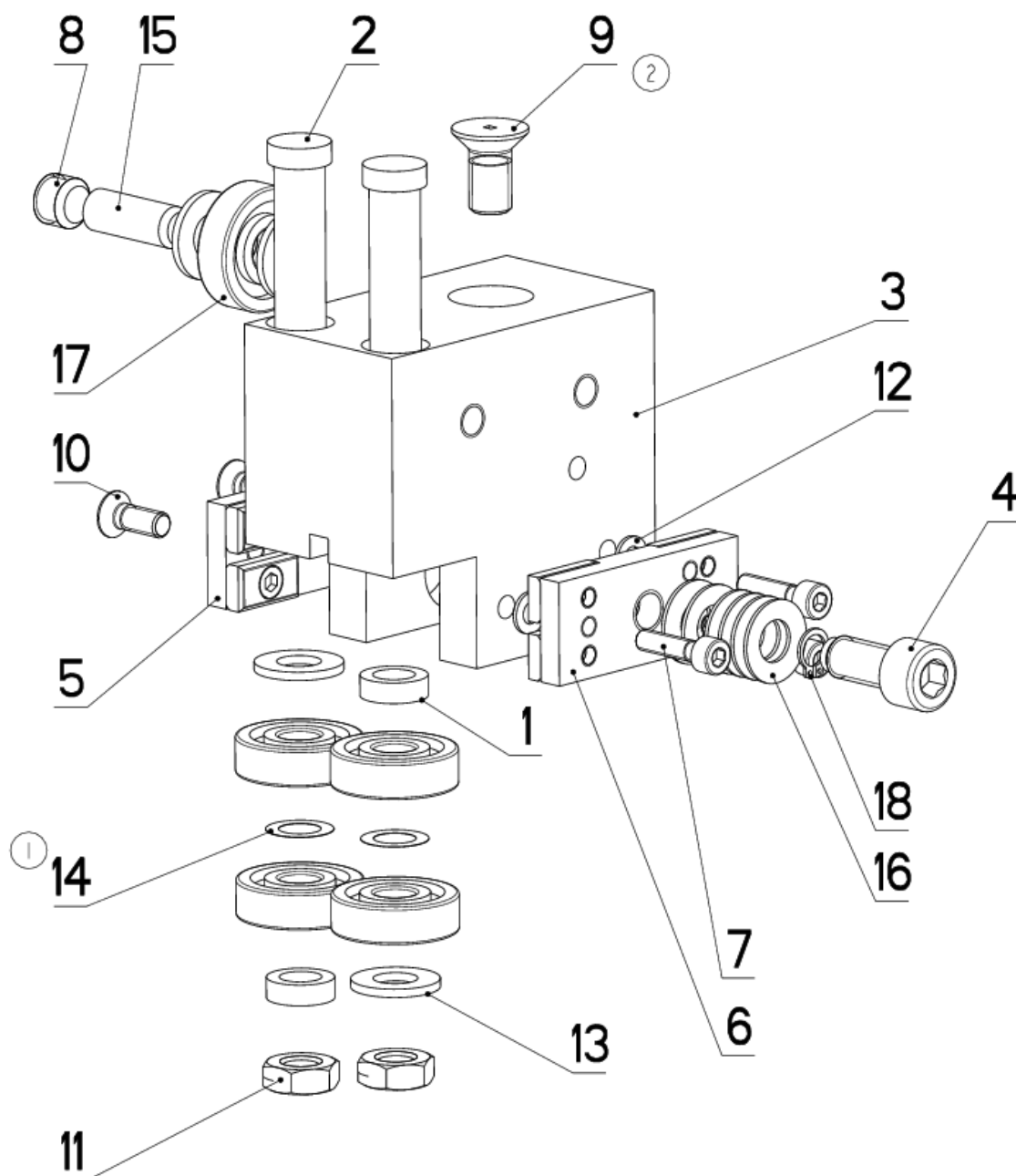
NAZEV SESTAVY REGULACE PRITLAKU	CISLO SESTAVY 001.2016-000	STROJ STG340DGS
	Konstruoval: &konstruoval	
	Datum: 19. 02.2010	
	Meritko: 1:2	

7.78. Kusovník / Stückliste / Piece list –
Regulace přítlaku / Pressure regulation /
Schnittdruckregulation

Číslo Sestavy 201.2016-000		Ver. 0	Název sestavy REGULACE PŘÍTLAKU/PRESSURE REGULATION/SCHNITTDRUCKREGULATION		
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 11,6x11,6	1
8	31.2016-008	0	PRUŽINA / SPRING / FEDER	0.25x3,6x12x9,5	1
9	90.099.002	0	SROUB PULKULATÝ / HALF ROUND BOLT / HALBRUNDSCHRAUBE	4x6	1
10	90.151.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHIBE	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 STATICKÝ / STATIC O RING / O-RING STATISCH	8x2	1
14	96.002.001	0	KROUZEK O DYNAMICKÝ / 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;
Objednávací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

7.79. Vodící kostka / Führungsklotz / Guiding Cube 1



NAZEV SESTAVY KOSTKA VODICI	CÍSLO SESTAVY 201.Y310-300	STROJ IND360
	Konstruoval: HLADIL	
	Datum: 05. 01.2017	
	Meritko: 4:5	

7.80. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding Cube 1

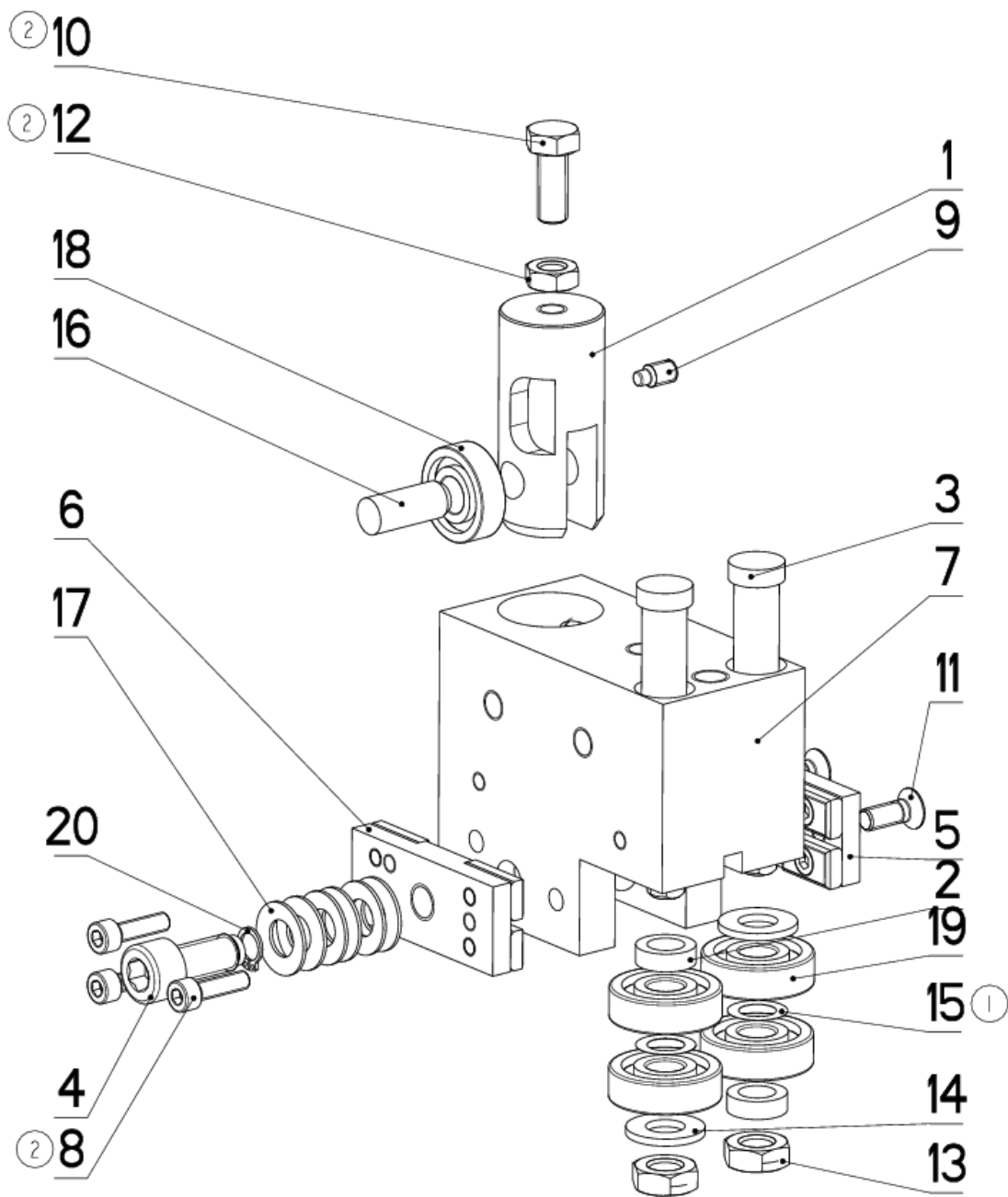
Císlo Sestavy 201.Y310-300		Ver. 2	Název sestavy KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.C210-403	1	DISTANC / DISTANCE / DISTANZ	TR 16x3	2
2	30.Y310-212	2	EXCENTR / CAM / EXZENTER	d 15	2
3	30.Y310-301	3	KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ	HR 80x50	1
4	30.Y310-306	1	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	90.001.25.010	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x20	3
8	90.002.20.016	0	SROUB STAVECI / ADJUSTMENT BOLT / STELSCHRAUBE	SROUB M12x10	1
9	90.011.27.008 (2)	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10x20	1
10	90.011.27.017	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6x16	2
11	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	2
12	90.150.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 5,3	3
13	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 10,5	4
14	90.154.50.001 (1)	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	10x16x0,1	2
15	90.301.02.001	0	KOLÍK VALCOVÝ / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLÍK 10x28	1
16	90.350.02.005	0	PRŮŽINA TALÍŘOVÁ / DISC SPRING / TELLERFEDER	20x10.2x1	6
17	95.001.014	0	LOŽISKO / BEARING / LAGER	6200 2RS	5
18	95.800.002	0	SEGR HŘÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUŽEK 8	1

1.PRIDANA PODLOŽKA 90.154.50.001. 2777ZM294 1.11.2010 SLEZACKOVA

2.PRIDAN 1xSROUB ZAPUSTNÝ M10x20 90.011.27.008. 003/ZM004 4.1.2016 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

7.81. Vodící kostka / Führungsklotz / Guiding Cube 2



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

7.82. Kusovník / Stückliste / Piece list – Vodící kostka / Führungsklotz / Guiding Cube 2

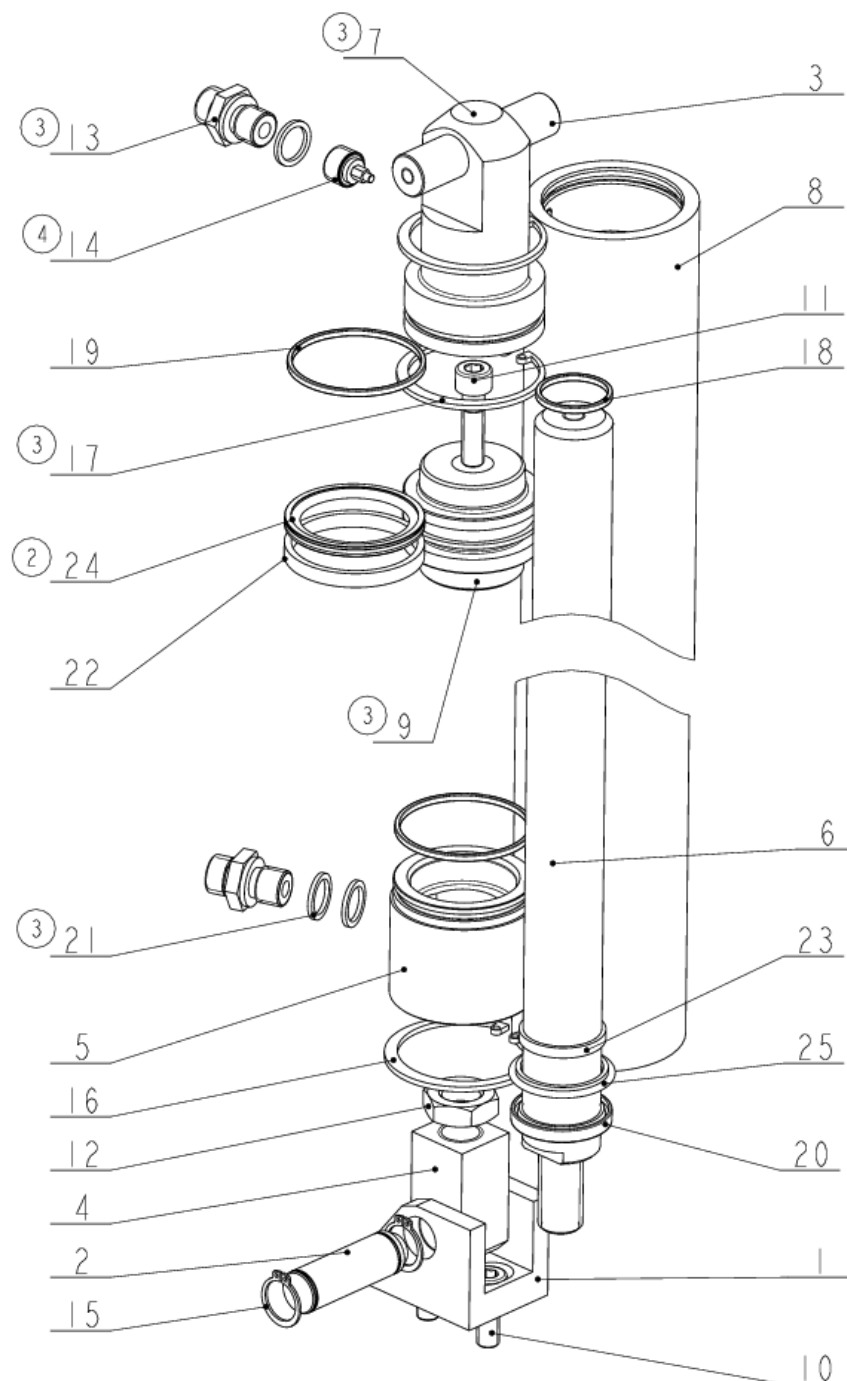
Číslo Sestavy 201.Y310-400		Ver. 2	Název sestavy KOSTKA VODICI/LEAD CUBE/FÜHRUNGSKLOTZ		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1810-102	3	DRŽAK / HOLDER / HALTER	TYC 28	1
2	30.C210-403	1	DISTANC / DISTANCE / DISTANZ	TR 16x3	2
3	30.Y310-212	2	EXCENTR / CAM / EXZENTER	d 15	2
4	30.Y310-306	1	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x25	1
5	30.Y310-310	0	DRŽAK TVRDOKOVU / POA HOLDER / HM-HALTER		1
6	30.Y310-320	0	DRŽAK TVRDOKOVU / POA HOLDER / HM-HALTER		1
7	30.Y310-401	4	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ	HR 80x50	1
8	90.001.25.143 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x18	3
9	90.004.20.002	0	SROUB STAVECI / ADJUSTMENT BOLT / STELSCHRAUBE	SROUB M6x12	1
10	90.005.55.015 (2)	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x20	1
11	90.011.27.017	0	ZAPUSTNÝ IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M6x16	2
12	90.101.55.001 (2)	0	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)	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	10x16x0,1	2
16	90.301.02.009	0	KOLÍK VALCOVÝ / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLÍK 10x26	1
17	90.350.02.005	0	PRUŽINA TALÍROVÁ / 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 HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNÝ KROUZEK 8	1

1. PRIDANA PODLOZKA 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;
Objednávací číslo/Purchase order number/Bestellnummer: Název položky/Volume title/Name der Position: Rožmer/Stock size/Abmessung

7.83. Válec zvedací / Lifting clinder / Hebezyylinder



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

7.84. Kusovník / Stückliste / Piece list Válec zvedací / Lifting clinder / Hebezyylinder

Císlo Sestavy 201.Y307-010		Ver. 4	Název sestavy VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLYNDER		
Poz.	Objednací číslo	Ver.	Název položky	Rožmer	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)	3	VÍKO / COVER / DECKEL	d 55	1
8	30.Y307-011	4	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLYNDER	TR 62/50	1
9	30.Y307-012 (3)	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)	0	SROUBENI PRIME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	GES 08LR	2
14	92.151.008 (4)	0	VENTIL POJISTNY / SAFETY VALVE / SICHERUNGSVENTIL	VPN-H 1/4"	1
15	95.800.007	0	SEGR HRIDEL / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 16	2
16	95.801.009	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 52	1
17	95.801.018 (3)	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY 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 STIRACI / SCRAPER RING / ABSTREIFRING	W02200280 Z201	1
21	96.082.002 (3)	0	TESNENI / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	3
22	96.084.001	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500500-T47	1
23	96.084.006	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GR4300280-T47	1
24	96.900.013 (2)	0	TESNENI KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	PT0200500	1
25	96.900.021	0	TESNENI KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	RSK200280-46N	1

1. ZRUS.SROUBENÍ 92.002.005 A NAHR.92.003.001,ZRUS.SROUBENÍ 30.6107-510 A NAHR.30.9107-509.,ZRUS.IX TESNENÍ 96.082.002 (ZUSTAVAJÍ 2ks).071/ZM097 12.4.2010 SLEZACKOVA
2. ZRUSENO TESNENÍ 96.900.001 A NAHR.96.900.013. 336/ZM006 10.1.2011 SLEZACKOVA
3. ZRUS.REDUKCE 30.9107-509,ZRUS.SROUBENÍ 30.1807-005,ZRUS.VÍKO 30.Y307-005 A NAHR.30.Y307-003,ZRUS.SROUBENÍ 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

7.85. Noha dopravníku / Feeder leg / Ständer des Förderers

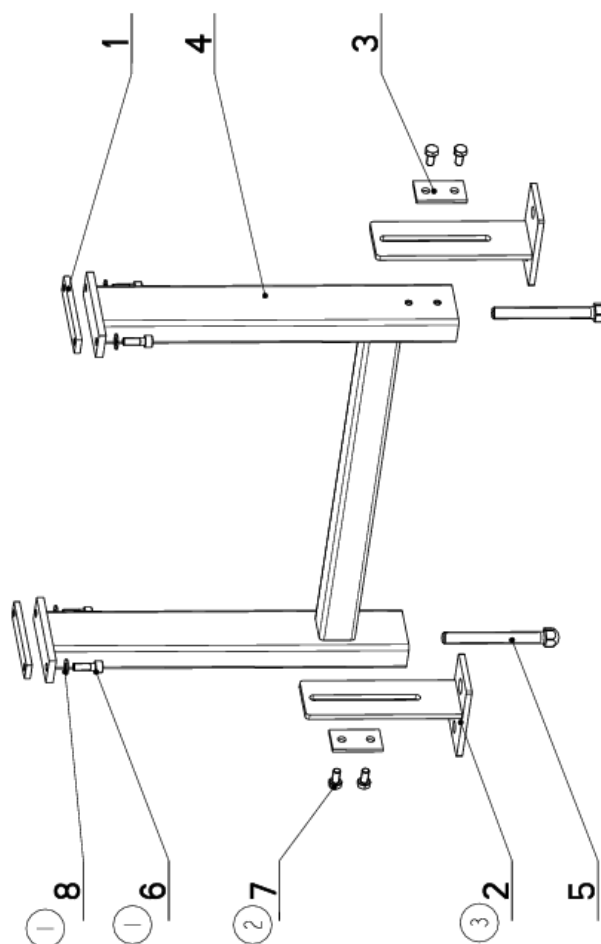
Číslo Sestavy 203.X105-100		Ver. 3	Název sestavy NOHA DOPRAVNÍKU/FEEDER LEG/STÄNDER DES FÖRDERERS		
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1315-701	3	PRÍLOŽKA / STRAP / LASCHE	HR 25x8	2
2	30.1515-660 (3)	0	NOHA / LEG / STÄNDER		2
3	30.1515-681	0	PRÍLOŽKA / STRAP / LASCHE	P 5x40	2
4	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 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10x20	4
8	90.150.50.006 (1)	0	PODLOŽKA / WASHER / UNTERLEGSCHNEIBE	PODLOŽKA 0,5	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).

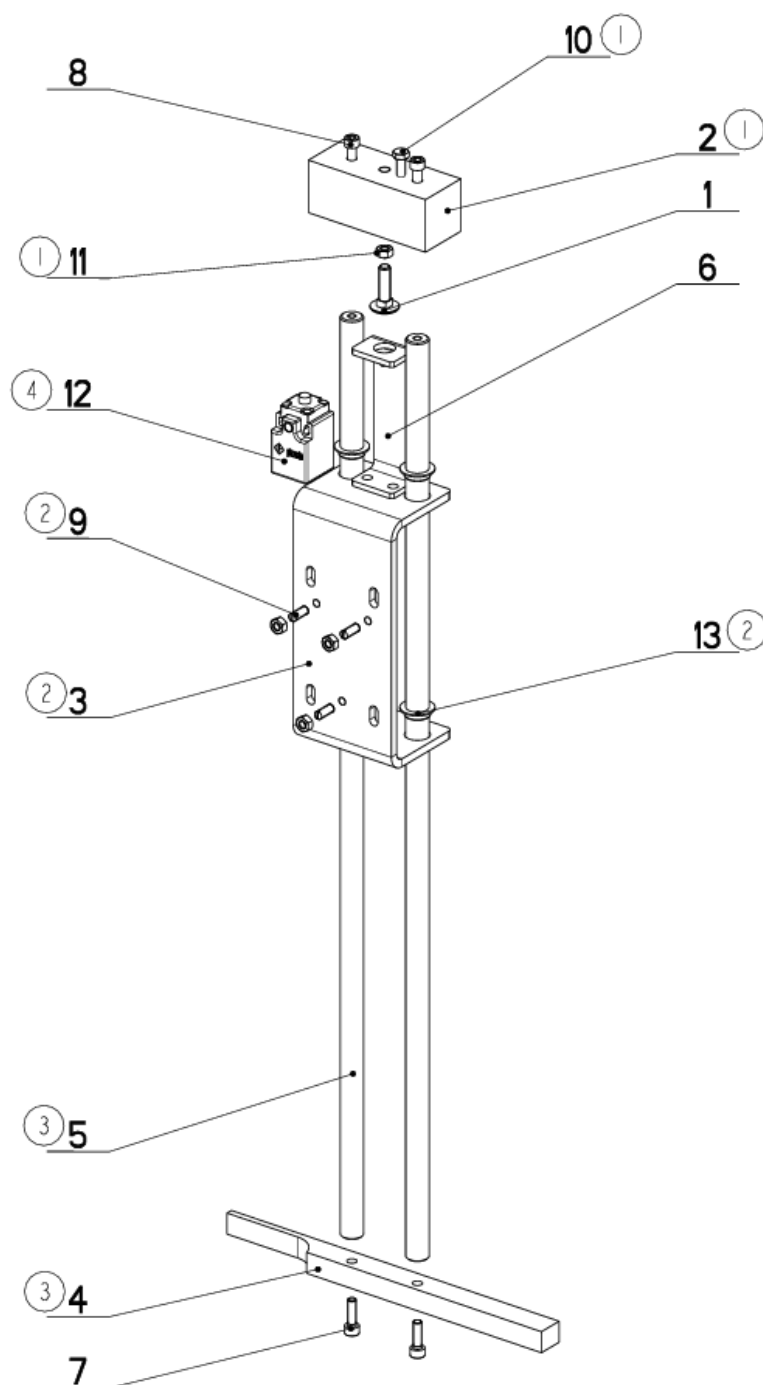
ZRUS. SROUB M10x20(90.005.55.023) A NAHR. M10x25(90.005.55.024).280/ZM288 25.10.2010 SLEZACKOVA

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



7.86. Doraz / Stop piece / Anschlag



NAZEV SESTAVY DORAZ	CÍSLO SESTAVY 221.V314-350	STROJ IN360DGA
	Konstruoval: HLADIL	
	Datum: 29. 04.2019	
	Meritko: 1:4	

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

Císlo Sestavy 221.V314-350		Ver. 4	Název sestavy DORAZ/STOP PIECE/ANSCHLAG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	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	DRŽAK / HOLDER / HALTER	P 4x36	1
7	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x20	2
8	90.001.25.023	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	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	91.173.015 (4)	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	FK3301-M1	1
13	95.710.053 (2)	0	POUZDRO / SLEEVE / BUCHSE	GFM 1618 09	4

- 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
- ZRUSENY DILY 30.V414-351, 30.V414-352; PRIDANY DILY 30.V314-355, 90.002.20.008 a 95.710.053 159/zm.168 24.5.2013 HLADIL
- 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
- ZRUS. SPINAC 91.173.007 A NAHR. 91.173.015. 138/ZM187 29.4.2019 SZABARI

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

8. **Výkresy sestav pro objednání náhradních dílů / Zeichnungen für Bestellung der Ersatzteile / Drawing assemblies for spare parts order Individual 520.360 DGANC LS 3300**

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. Individual 520.360 DGANC), výrobní číslo (např. 125) a rok výroby (např. 1999).

In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Individual 520.360 DGANC), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).

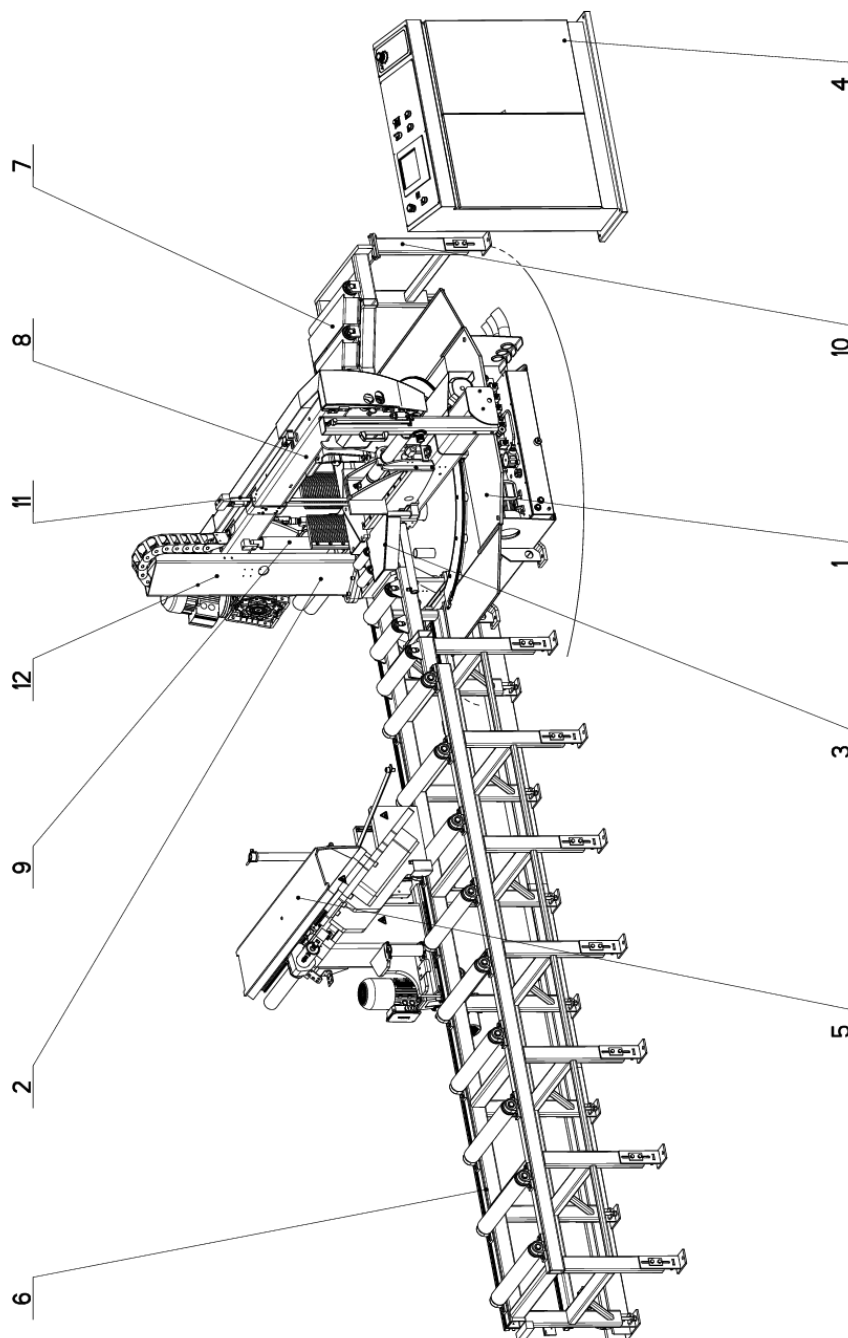
For spare parts order, you must always to allege: type of machine (for example Individual 520.360 DGANC), serial number (for example 125, see cover page) and year of construction (for example 1999).

- Součásti, u kterých není zařazen výkres, jsou shodné s kompletní sestavou pily Individual 520.360 DGANC LS 2300

These parts which haven't any drawing assigned are identical with parts from complete assembly of the band saw Individual 520.360 DGANC LS 2300.

Die Teile, bei denen es keine Zeichnung gibt, sind mit der kompletten Zusammenstellung der Säge Individual 520.360 DGANC LS 2300 identisch.

8.1. Individual 520.360 DGANC LS 3300



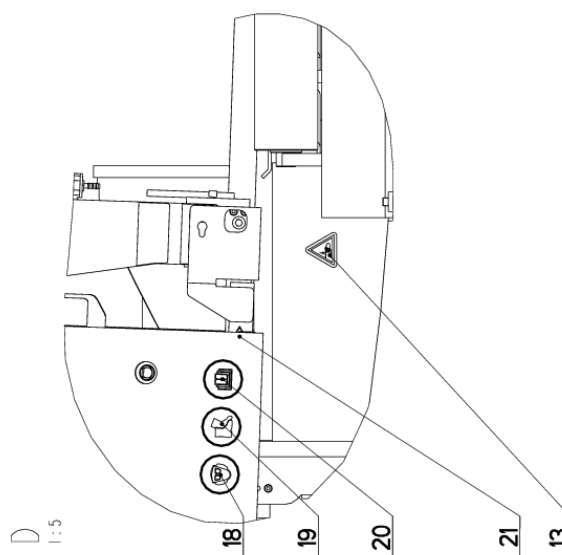
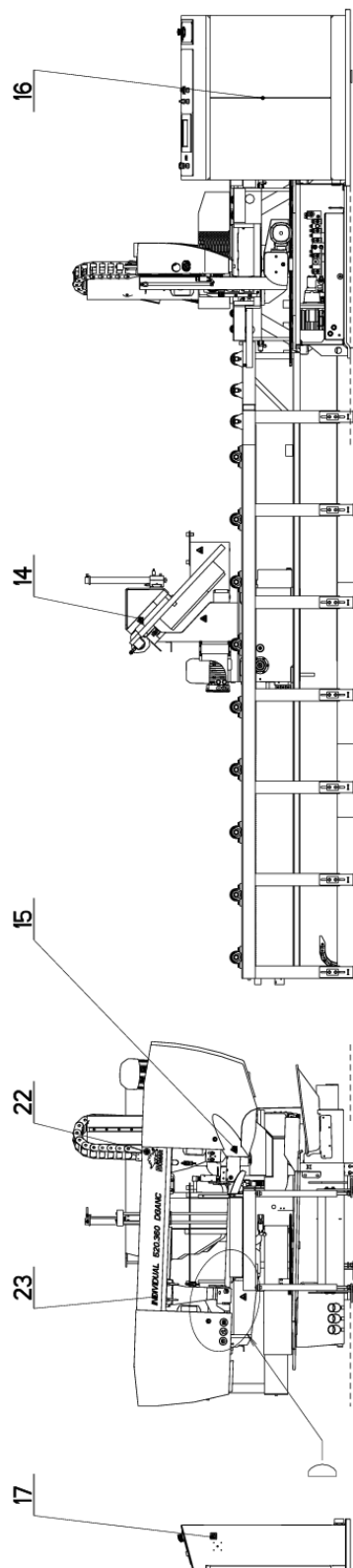
NAZEV SYSTÉMU PILA PASOVA	CÍSLO SYSTÉMU 201.W300-400	STROJ IN360DGA
Konstruoval: HLADIL		
Datum: 18. 09.2017		
Měřítko: 1:20		

8.2. Kusovník / Stückliste / Piece list – Individual 520.360 DGANC LS 3300

Císlo Sestavy 201.W300-400		Ver. I	Název sestavy PILA PASOVA/BAND SAW/BANDSÄGE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.V301-300	4	PODSTAVEC / BASE / UNTERSATZ		I
2	201.V302-300	3	KONZOLA OTOČNÁ / TURNABLE CONSOL / DREHKONSOLE		I
3	201.V309-300	3	SVERAK / VICE / SCHRAUBSTOCK		I
4	201.W330-400	I	ROZVADEC / DISTRIBUTOR / VERTEILER		I
5	201.W350-100	9	PODAVAC / FEEDER / VORSCHUB		I
6	201.W360-250	2	TRAT / TRACK / BAHN		I
7	201.W380-200	0	DIL PROPOJOVACÍ / CONNECTING PART / VERBINDUNGSTEIL		I
8	201.Y304-100	9	RAMENO / SHOULDER / SÄGERAHMEN		I
9	201.Y307-010	4	VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLINDER		I
10	203.X105-100	3	NOHA DOPRAVNÍKU / FEEDER LEG / STÄNDER DES FÖRDERERS		I
11	221.V314-350	3	DORAZ / STOP PIECE / ANSCHLAG		I
12	30.W399-101	3	STÍTEK TYPOVÝ / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	I
13	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.STLACENI	3
14	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2
15	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		3
16	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		I
17	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		I
18	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		I
19	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		I
20	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		I
21	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		I
22	99.901.032	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNÍ SAMOLEPKA	I
23	99.901.033	0	SAMOLEPKA / STICKER / AUFKLEBER	IN360 GANC	I

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

8.3. Individual 520.360 DGANC LS 3300



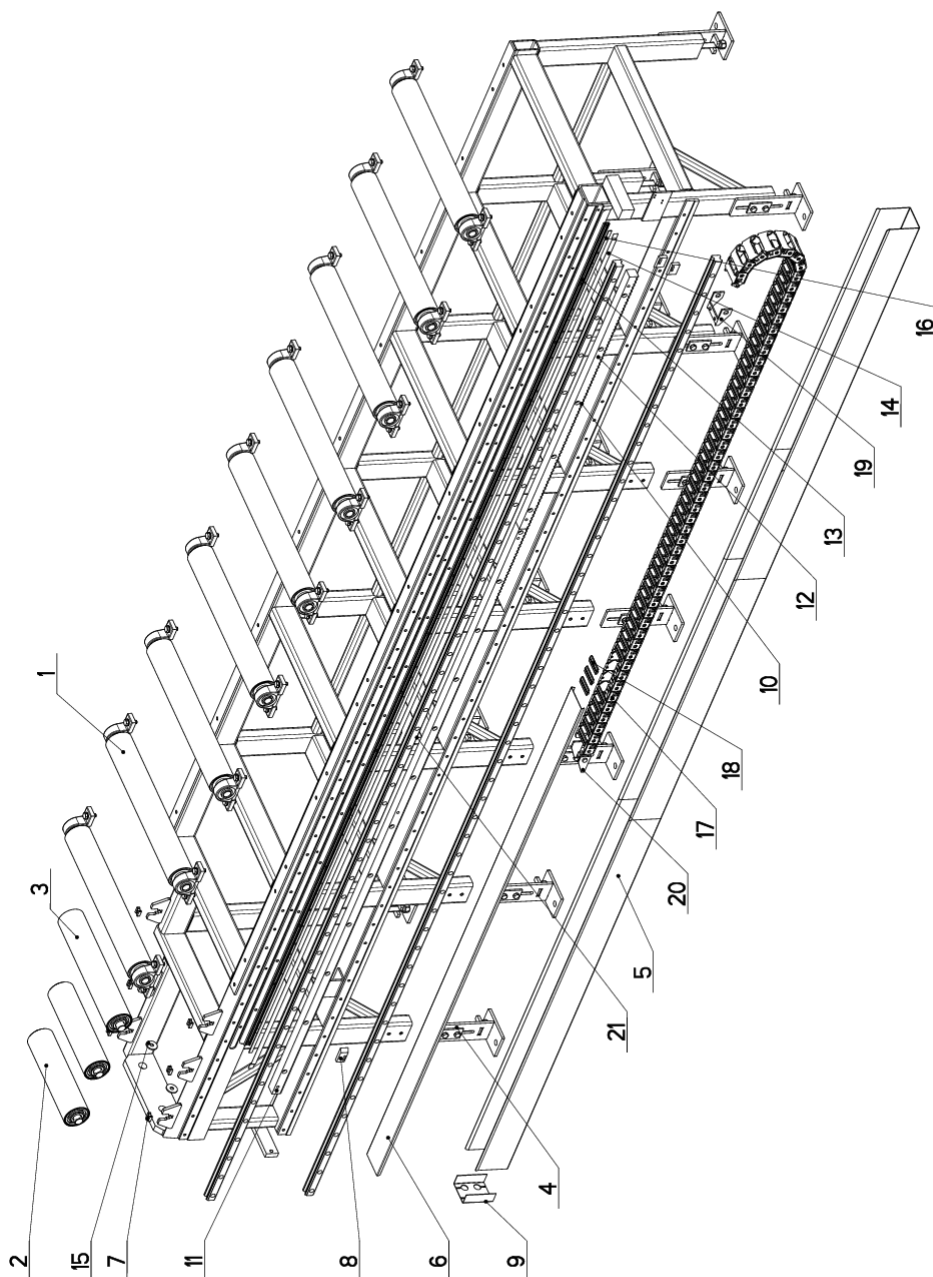
NAZEV SYSTÉMU PILA PASOVA	CÍSLO SYSTÉMU 201.W300-400	STROJ IN360DGA
Konstruoval: HLADIL		
Datum: 18. 09.2017		
Meritko: 1:25		

8.4. Kusovník / Stückliste / Piece list – Individual 520.360 DGANC LS 3300

Císlo Sestavy 201.W300-400		Ver. I	Název sestavy PILA PASOVA/BAND SAW/BANDSAGE			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	201.V301-300	4	PODSTAVEC / BASE / UNTERSATZ		I	
2	201.V302-300	3	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE		I	
3	201.V309-300	3	SVERAK / VICE / SCHRAUBSTOCK		I	
4	201.W330-400	I	ROZVADEC / DISTRIBUTOR / VERTEILER		I	
5	201.W350-100	9	PODAVAC / FEEDER / VORSCHUB		I	
6	201.W360-250	2	TRAT / TRACK / BAHN		I	
7	201.W380-200	0	DIL PROPOJOVACI / CONNECTING PART / VERBINDUNGSTEIL		I	
8	201.Y304-100	9	RAMENO / SHOULDER / SÄGERAHMEN		I	
9	201.Y307-010	4	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLINDER		I	
10	203.X105-100	3	NOHA DOPRAVNÍKU / FEEDER LEG / STÄNDER DES FÖRDERERS		I	
11	221.V314-350	3	DORAZ / STOP PIECE / ANSCHLAG		I	
12	30.W399-101	3	STITEK TYPOVY / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	I	
13	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.STLACENI	3	
14	99.900.041	0	SAMOLEPKA / STICKER / AUFKLEBER		2	
15	99.900.043	0	SAMOLEPKA / STICKER / AUFKLEBER		3	
16	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
17	99.900.046	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
18	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
19	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
20	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
21	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		I	
22	99.901.032	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNI SAMOLEPKA	I	
23	99.901.033	0	SAMOLEPKA / STICKER / AUFKLEBER	IN360 GANC	I	

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

8.5. Podavač -Trať / Vorschub -Bahn / Feeder - Track – 3300 mm



NAZEV SESTAVY TRAT	ČÍSLO SESTAVY 201.W360-250	STŘEJ 360DGA3300
Konstruoval: HLADIL		
Datum: 27. 03. 2017		
Meritko: 9:100		

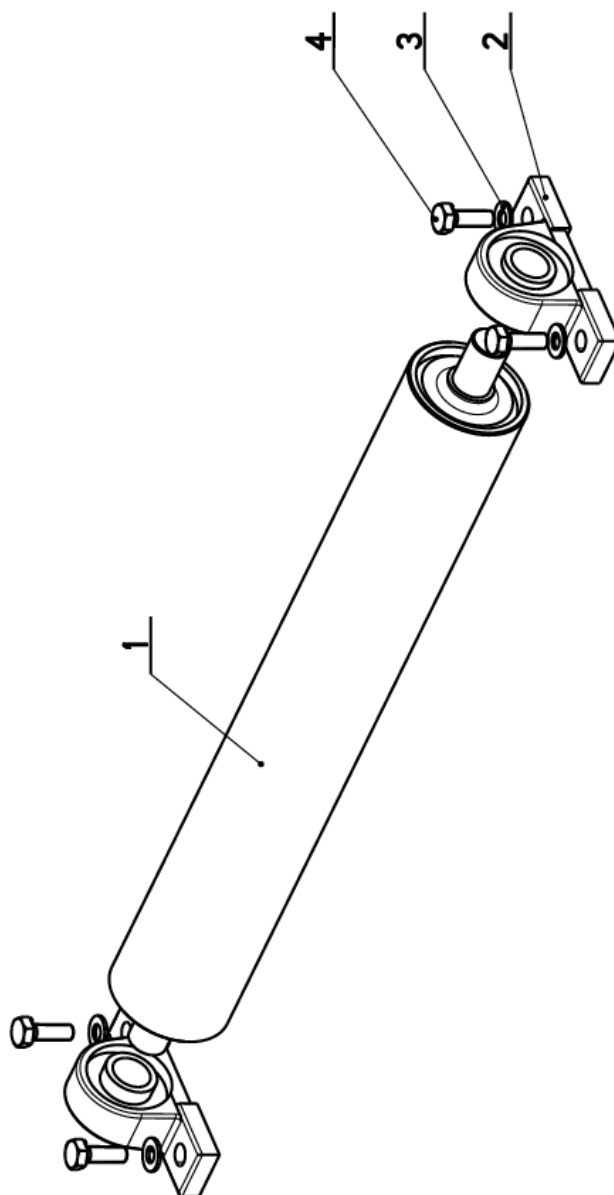
8.6. Kusovník / Stückliste / Piece list – Podavač -Trať / Vorschub -Bahn / Feeder - Track – 3300 mm

Císlo Sestavy 201.W360-250	Ver. 2	Název sestavy TRAT/TRACK/BAHN				
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	
1	201.1514-520	0	VALEC / ROLLER / ZYLINDER		9	
2	201.W370-010	0	VALEČEK / CYLINDER / ROLLE		2	
3	201.W370-020	0	VALEČEK / CYLINDER / ROLLE		1	
4	201.W460-005	0	NOHA / LEG / STÄNDER		14	
5	30.1503-511	0	KORYTO / CHANNEL / RinNE	P 2x297	3	
6	30.1503-520	0	VÍKO / COVER / DECKEL	P 1x109	1	
7	30.1517-841	0	MATICE / NUT / MUTTER	P 8x19	6	
8	30.E462-006		DORAZ / STOP PIECE / ANSCHLAG	TYC25x10	3	
9	30.W360-103	0	VÍKO / COVER / DECKEL	P 1.5x98	1	
10	30.W360-251	3	TRAT / TRACK / BAHN		1	
11	30.W460-002	0	HŘEBEN / COMB / KAMM	OZ.TYC30x30_3000	1	
12	30.W460-102	0	HŘEBEN / COMB / KAMM	OZ.TYC 30x30	1	
13	30.W460-105	0	PROFIL / PROFILE / PROFIL		1	
14	55.800.009	0	PLECH / PLATE / BLECH	P 0.3x15	1	
15	90.151.50.001		PODLOŽKA / WASHER / UNTERLEGSCHEIBE	PODLOŽKA 10	2	
16	91.271.002		PÁSKA MAGNETICKÁ / MAGNETIC TAPE / MAGNETBAND	MB 20.50.32.0	1	
17	99.170.069	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	MP 3002.5 R 095	53	
18	99.170.070	0	RETEZ ENERGII / ENERGY BELT / ENERGIEKETTE	DE 3002.5	53	
19	99.171.013	0	KONCOVKA / END / ENDSTÜCK		1	
20	99.171.014	0	KONCOVKA / END / ENDSTÜCK		1	
21	99.200.323	0	VEDENÍ LINEARNÍ / LINEAR GUIDE / LINEARE FÜHRUNG	MSA 30R 4000 20/60N	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

8.7. Váleček / Roller / Zylinder 1 – 3300 mm

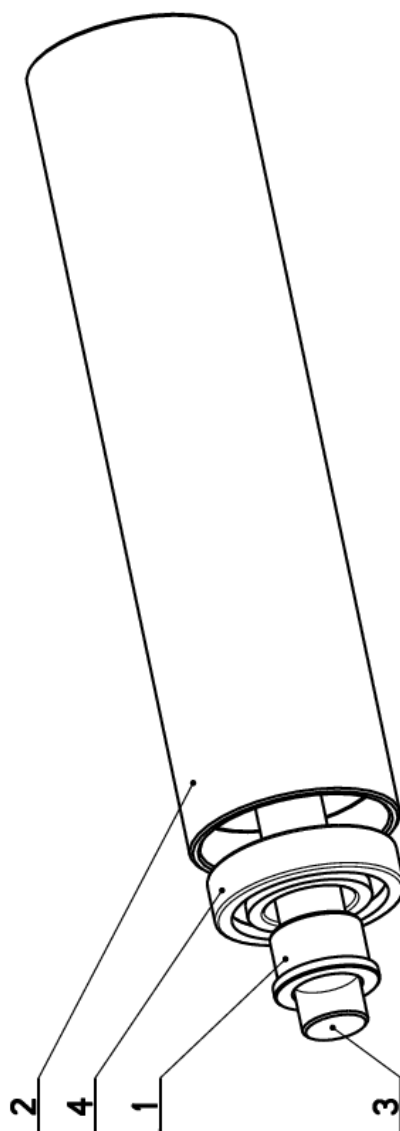
Cislo Sestavy 201.1514-520		Ver. 0	Nazev sestavy VALEC/ROLLER/ZYLINDER		
Poz.	Objednaci cislo	Ver.	Nazev položky	Rozmer	Ks
1	30.1514-502	1	VALEC / ROLLER / ZYLINDER		1
2	95.160.001	0	LOŽISKO / BEARING / LAGER	UCP 205	2
3	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 10,5	4
4	90.401.02.002	0	SROUB ŠHRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X30	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

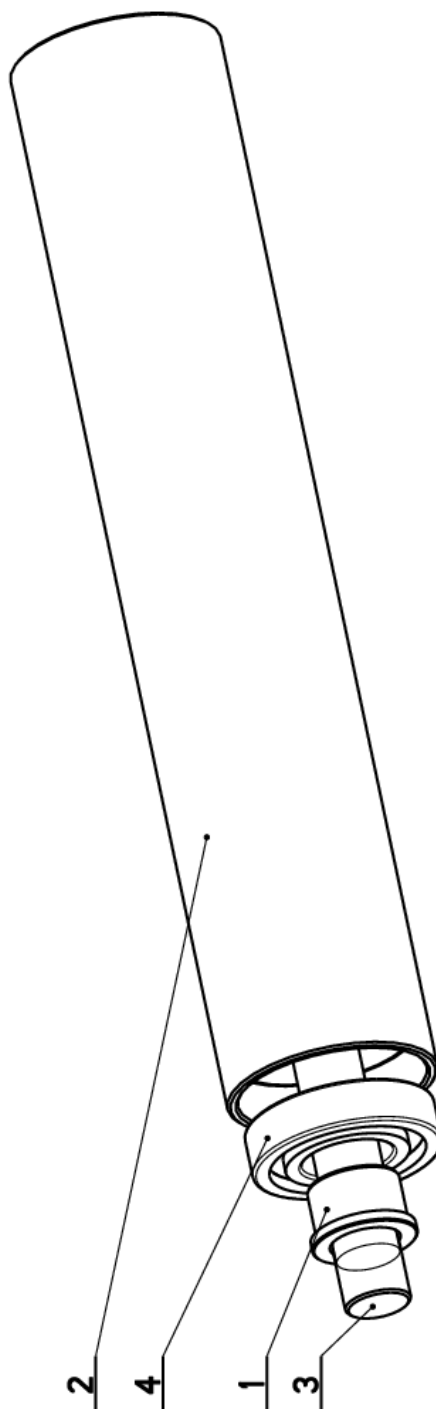
8.8. Váleček / Roller / Zylinder 2 – 3300 mm

Císlo Sestavy 201.W370-010		Ver. 0	Název sestavy VALEČEK/CYLINDER/ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	2
2	30.W370-011	0	TRUBKA / TUBE / ROHR	Tr 80x5	1
3	30.W370-012	0	ČEP / LUG / BOLZEN	d 25	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2



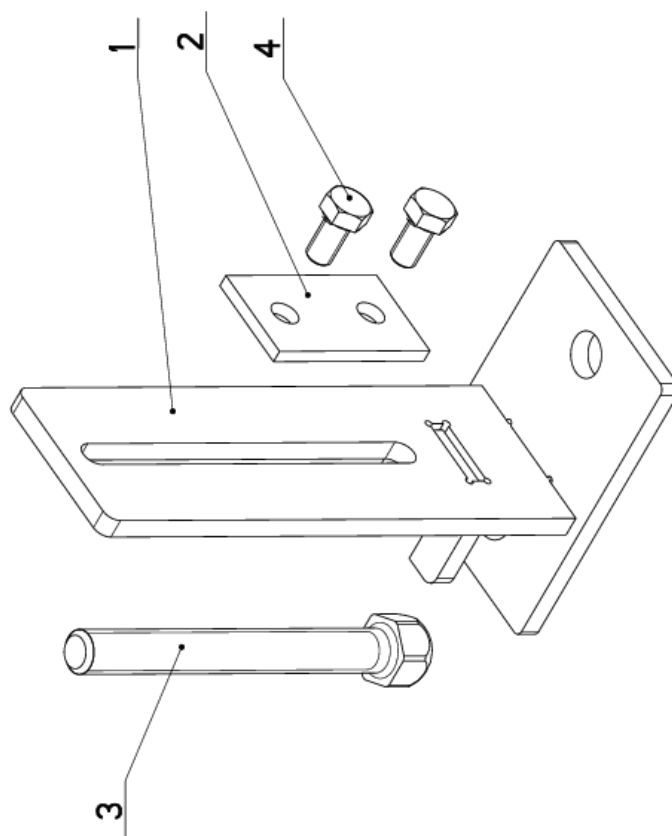
8.9. Váleček / Roller / Zylinder 3 – 3300 mm

Císlo Sestavy 201.W370-020		Ver. 0	Název sestavy VALEČEK / CYLINDER / ROLLE		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.1501-004	0	POUZDRO / SLEEVE / BÜCHSE	d 40	2
2	30.W370-021	0	TRUBKA / TUBE / ROHR	Tr 80x5	1
3	30.W370-022	0	ČEP / LUG / BOLZEN	d 25	1
4	95.001.020	0	LOŽISKO / BEARING / LAGER	6207 2RS	2



8.10. Noha / Leg / Ständer – 3300 mm

Cislo Sestavy 201.W460-005		Ver. 0	Název sestavy NOHA/LEG/STÄNDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	30.1515-690	2	NOHA / LEG / STÄNDER		1
2	30.1515-681	0	PRÍLOŽKA / STRAP / LASCHE	P 5x40	1
3	31.1514-102	0	SROUB / BOLT / SCHRAUBE	M 16	1
	90.005.55.023	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10x20	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

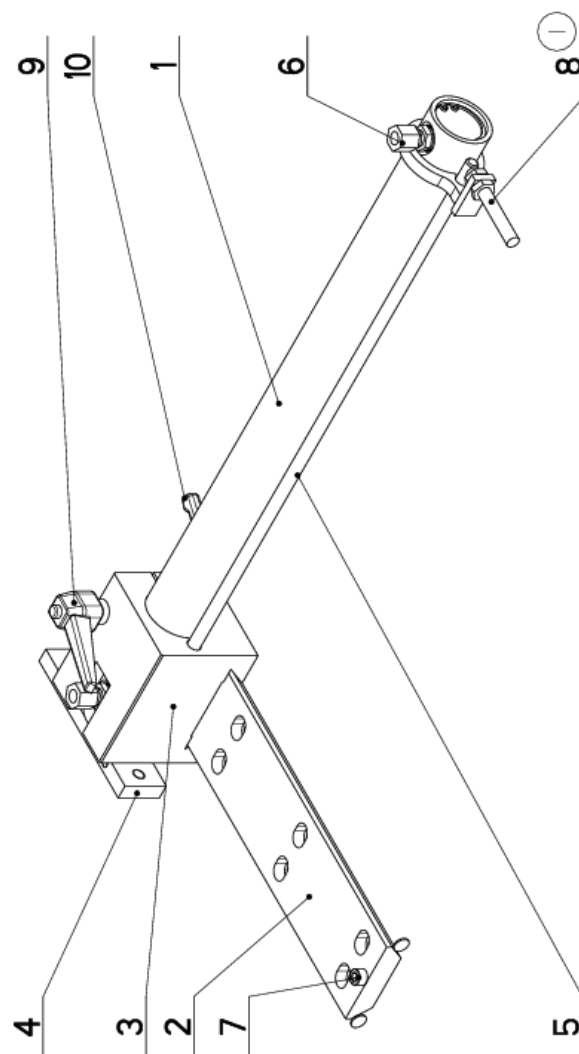
9. **Volitelné příslušenství / Optional accessories / Optionales Zubehör**

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. Individual 520.360 DGANC) , výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Individual 520.360 DGANC), 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 DGANC), serial number (for example 125, see cover page) and year of construction (for example 1999).

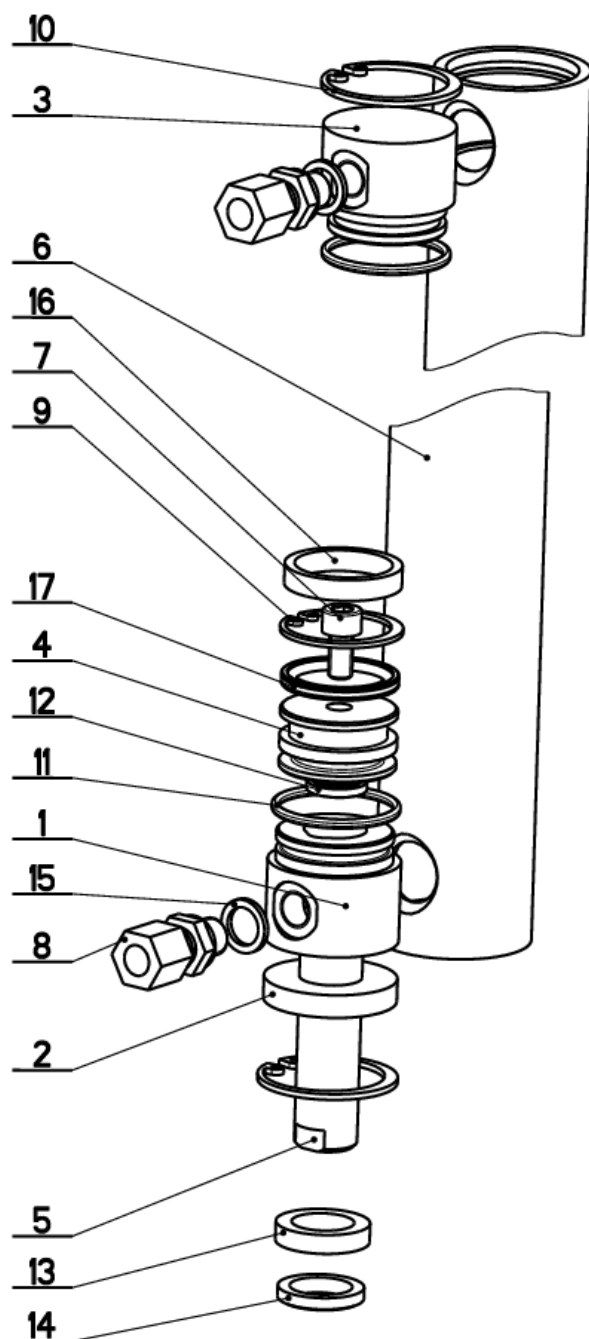
9.1. Upínání horní / Top clamping / Spannvorrichtung oben

Císlo Sestavy 201.W350-130		Ver. 1	Název sestavy UPÍNÁNÍ HORNÍ / TOP CLAM/SPANNVORRICHTUNG OBEN		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.W307-120	0	VALEC UPÍNACÍ / FIXING CYLINDER / SPANNZYLINDER		1
2	30.W350-131	0	LISTA / TRIM / LEISTE	HR 60x15	1
3	30.W350-132	0	KLUZÁK / GLIDER / GLEITER	HR 70x70	1
4	30.W350-133	1	DESKA / BOARD / PLATTE	HR 30x10	1
5	30.W350-134	0	TYC VODICÍ / LEAD POLE / FÜHRUNGSSTANGE	D 8	1
6	30.W350-136	0	DRŽÁK / HOLDER / HALTER		1
7	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x10	2
8	91.172.057 (1)	0	SPINAC / SWITCH / SCHALTER	AECO-S18-DC2 PNP NO HI /108000084	1
9	94.008.006	0	PAKA UPÍNACÍ / ATTACHMENT LEVER / SPANNHEBEL	M10	1
10	94.008.015	0	PAKA UPÍNACÍ / ATTACHMENT LEVER / SPANNHEBEL		1

1.ZRUSEN SPINAC 91.172.001 A NAHR.91.172.057. 172/ZM198 25.8.2015 SLEZACKOVA



9.1.1. Válec upínací / Fixing cylinder / Spannzyylinder



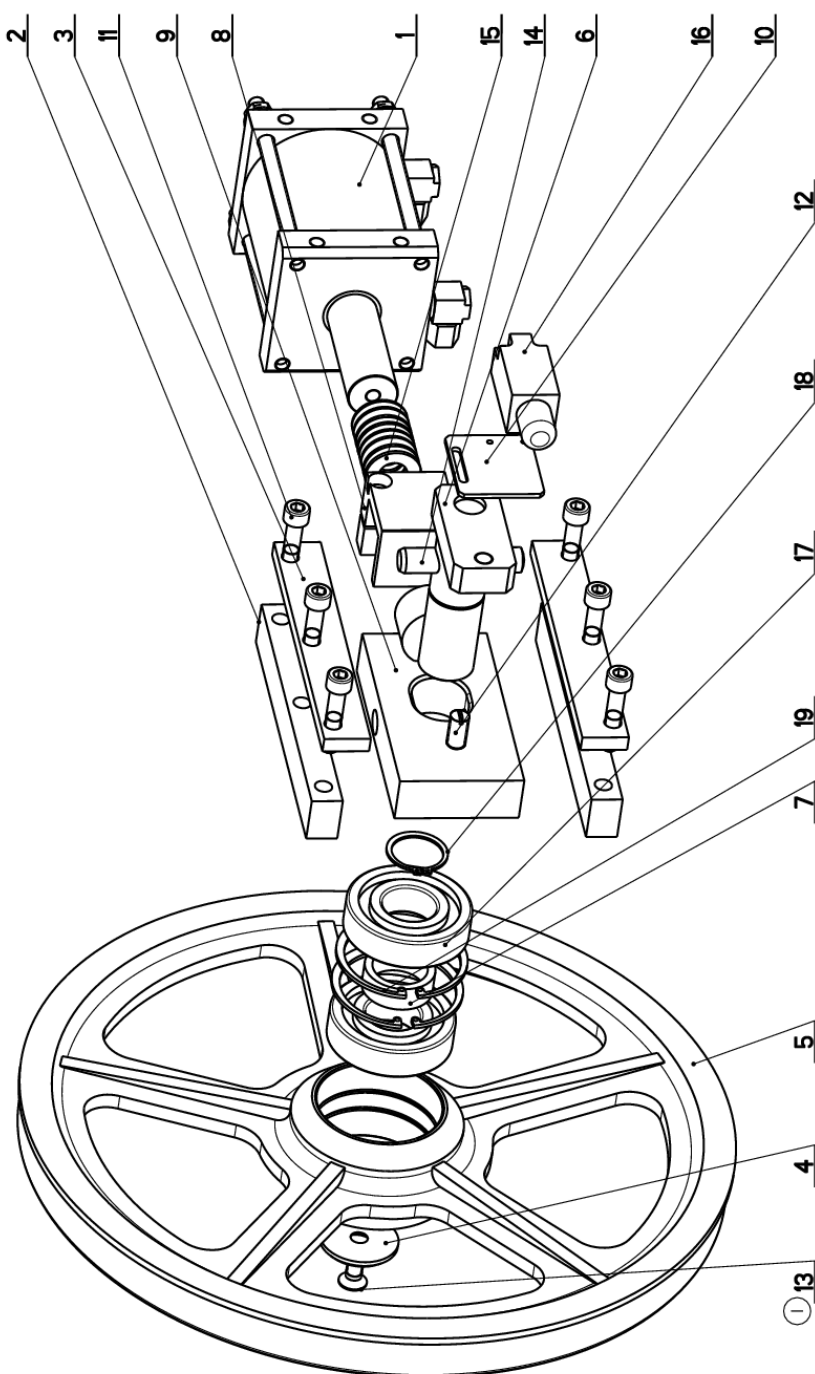
NAZEV SESTAVY VALEC UPINACÍ	CÍSLO SESTAVY 201.W307-120	STROJ IN360
	Konstruoval: MUSIL	
	Datum: 05. 01. 2011	
	Meritko: 7:10	

9.1.2. Kusovník / Stückliste / Piece list
Válec upínací / Fixing cylinder / Spannzyylinder

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 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	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

9.2. Napínání / Tensioning / Spannung



NAZEV SESTAVY NAPÍNÁNÍ	CÍSLO SESTAVY 201.V308-200	STROJ IN 360
Konstruoval: HLADIL		
Datum: 29. 10.2010		
Meritko: 2:5		

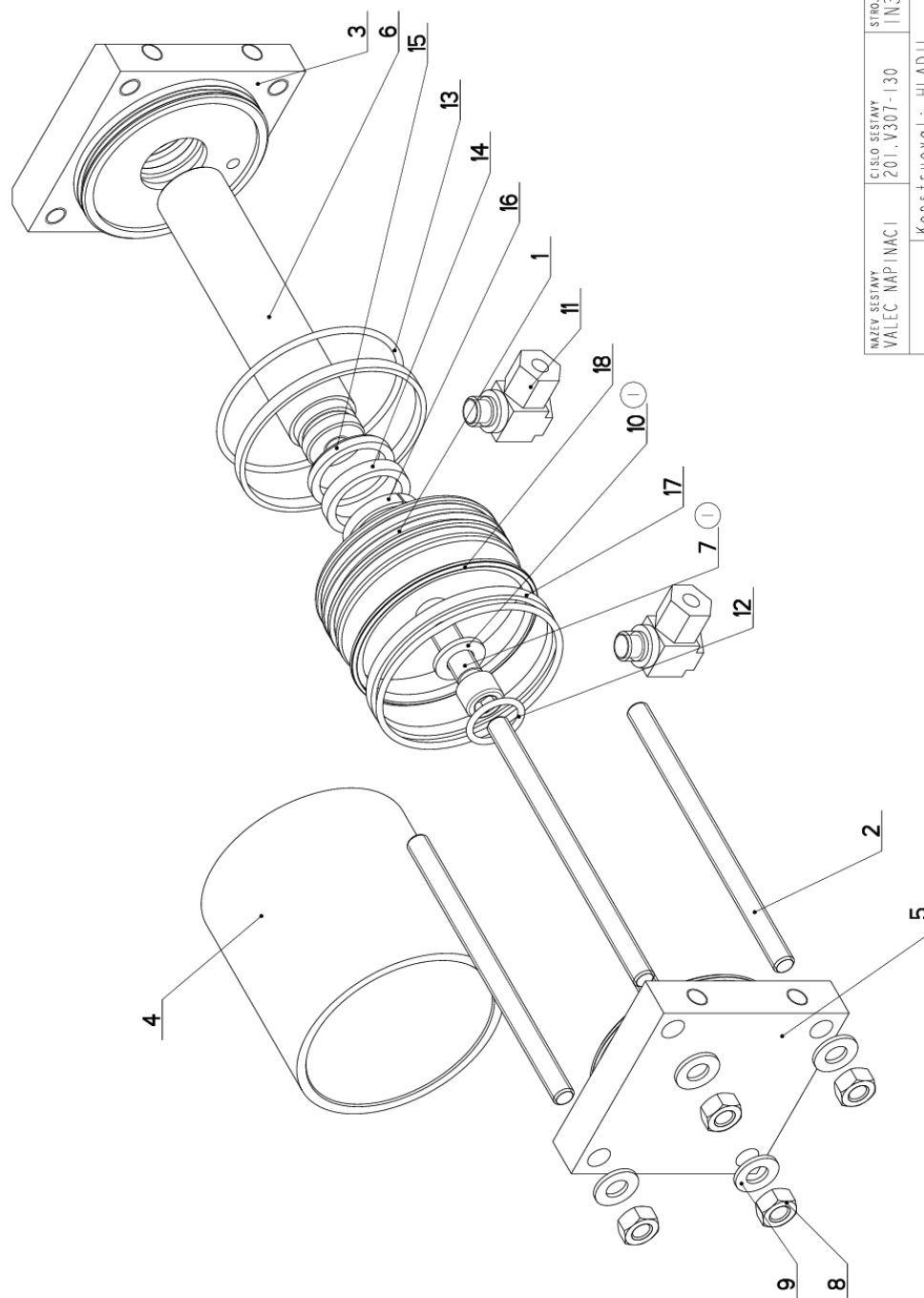
9.3. Kusovník / Stückliste / Piece list Napínání / Tensioning / Spannung

Císlo Sestavy 201.V308-200		Ver. I	Název sestavy NAPÍNÁNÍ / TENSIONING / SPANNUNG		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.V307-130	I	VALEC NAPÍNACÍ / 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	ø 50	I
5	30.2908-103	2	KOLO NAPÍNACÍ / TENSIONING WHEEL / UMLENKRAD	ODLITEK	I
6	30.4808-101	4	CEP NAPÍNÁNÍ / TENSIONING LUG / SPANNUNGSBOLZEN		I
7	30.4808-103	I	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	ø 45	I
8	30.V308-005	0	TRMEN / BINDER / BÜGEL	HR 60x60	I
9	30.V308-101	0	KOSTKA NAPÍNÁNÍ / 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	TALÍROVÁ 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 HRÍDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 35	I
19	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). 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; Rozměr/Stock size/Abmessung

9.3.1. Válec napínací / Tensioning cylinder / Spannzyylinder



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

9.3.2. Kusovník / Stückliste / Piece list

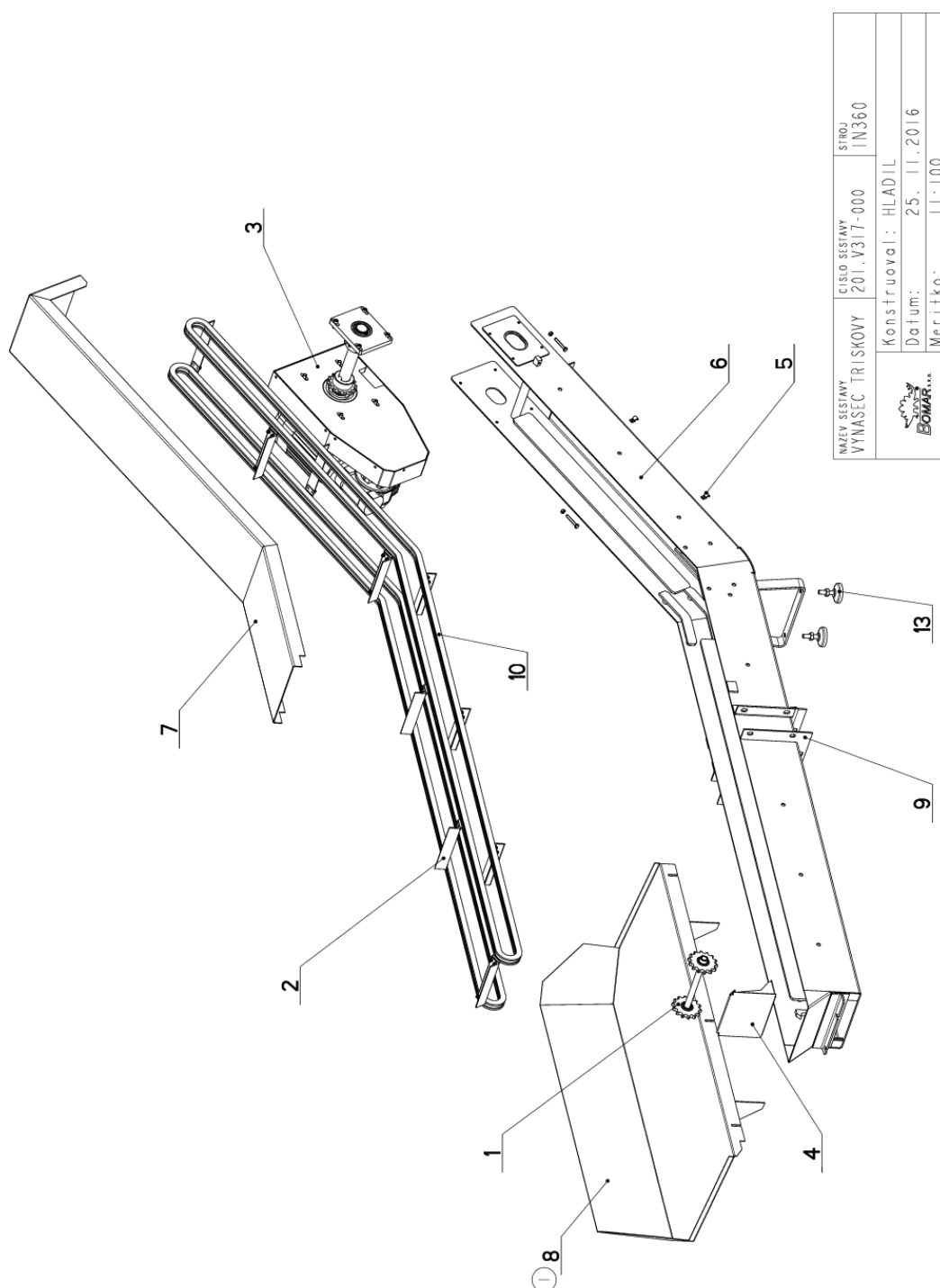
Válec napínací / Tensioning cylinder / Spannzylinder

Císlo Sestavy 201.V307-130		Ver. 1	Název sestavy VALEC NAPINACI / TENSIONING CYLINDER / SPANNZYLINDER		
Poz.	Objednací číslo	Ver.	Název položky	Rozmer	Ks
1	30.6407-504	0	PIST / PISTON / KOLBEN	d 90	1
2	30.6707-406	0	TYC ZAVITOVA / THREADED POLE / GEWINDESTANGE	TYC M10	4
3	30.V307-031	0	VÍKO / COVER / DECKEL	HR 100x100	1
4	30.V307-032	0	VALEC NAPINACI / 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	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 10,5	4
10	90.150.50.007 (1)	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	1
11	92.003.001	0	SROUBENI UHLOVE / ANGLE BOLTING / WINKELVERSCHRAUBUNG	P-RSWS-08LR	2
12	96.002.035	0	KROUZEK O DYNAMICKY / /	22x3	1
13	96.002.055	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	96.002.055	2
14	96.042.007	0	TESNENI / SEALING / DICHTUNG	32x40x6,3	1
15	96.060.009	0	KROUZEK STIRACI / SCRAPER RING / ABSTREIFRING	32x40x5x6	1
16	96.084.003	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GR 6500320	1
17	96.084.013	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500900 T47	2
18	96.900.027	0	TESNENI KOMBINOVA NE / COMBINATION SEALING / KOMBIDICHTUNG	P10200900	1
1.ZRUS.SROUB M10x35(90.001.25.049) A NAHR.M12x35(90.001.25.059) ZRUS.1xPODLOZKA 10.5(90.150.50.006) A NAHR.PODLOZKOU 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 (Pos./Position/Position;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

9.4. Vynašeč třískový / Chip extractor / Spanabführung



NAZEV SESTAVY VYNAŠEČ TRÍSKOVÝ	ČÍSLO SESTAVY 201.V317-000	STROJ IN360
Konstruoval: HLADIL		
Datum: 25. 11. 2016		
Meritko: 11:100		

9.5. Kusovník / Stückliste / Piece list

Vynašeč třískový / Chip extractor / Spanabführung

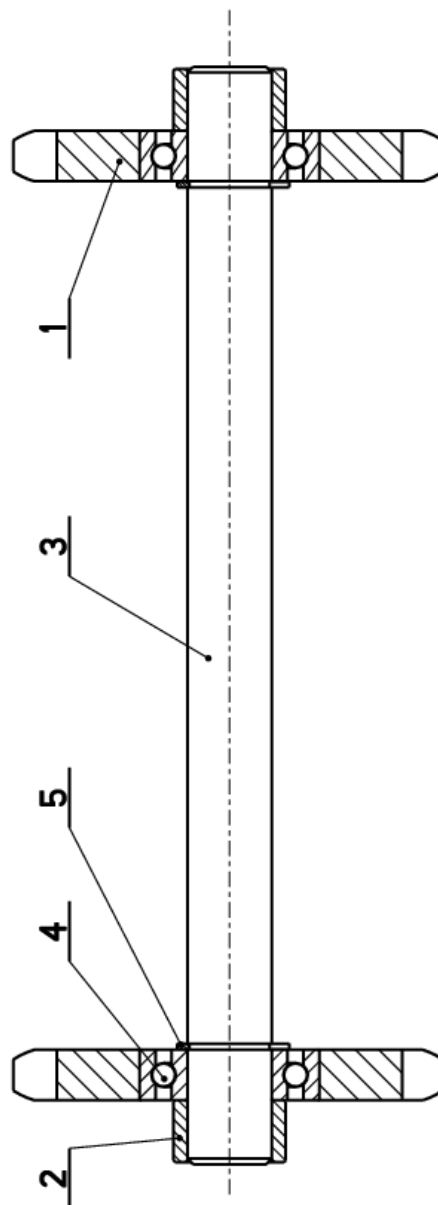
Císlo Sestavy 201.V317-000		Ver. 1	Název sestavy VYNAŠEČ TRÍSKOVÝ/CHIP EXTRACTOR/SPANABFÜHRUNG		
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6017-103	0	KOLO NAPÍMACÍ / TENSIONING WHEEL / UMLENKRAD		1
2	201.6017-104	2	RETEZ POHONOVÝ / DRIVE BELT / ANTRIEBSKETTE		10
3	201.V317-050	0	POHON / DRIVE / ANTRIEB		1
4	30.6017-121	0	SÍTO / SIEVE / GITTERWERK		1
5	30.9010-003	0	DRŽÁK / HOLDER / HALTER	Pl.5x10	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	TL4	1
10	49.200.018	0	RETEZ / CHAIN / KETTE	210BK3 (1/4x3/8)	2
11	90.005.55.012	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M6x40	2
12	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE - M6	2
13	94.015.002	0	NOHA / LEG / STÄNDER	M10x40	2

I.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

9.5.1. Kolo napínací / Tensioning wheel / Umlenkrad

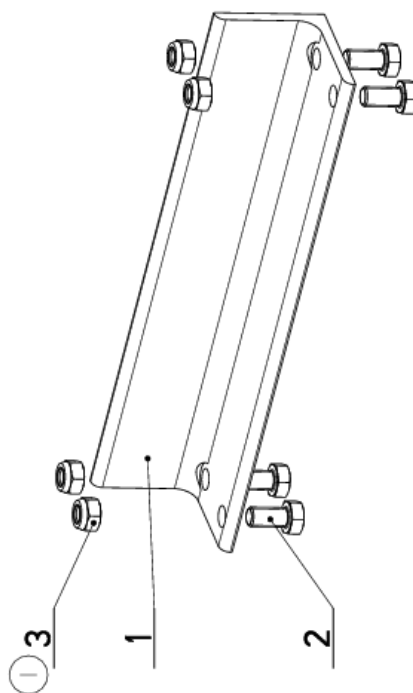
Číslo Sestavy 201.6017-103		Ver. 0	Název sestavy KOLO NAPÍNACÍ / TENSIONING WHEEL / UMLENKRAD		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6017-111	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	RETEZKA z=14	2
2	30.6017-114	0	KROUZEK DISTANČNÍ / DISTANCE RING / DISTANZRING	TR. 20x3	2
3	30.6017-117	0	HRDEL / SHAFT / WELLE	d15	1
4	95.001.006	0	LOŽISKO KULÍ RADE / BEARING / LAGER	6002 2RS	2
5	95.800.006	0	KROUZEK POJIST.VNEJŠÍ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 15	2



9.5.2. Řetěz pohonový / Drive Belt / Antriebskette

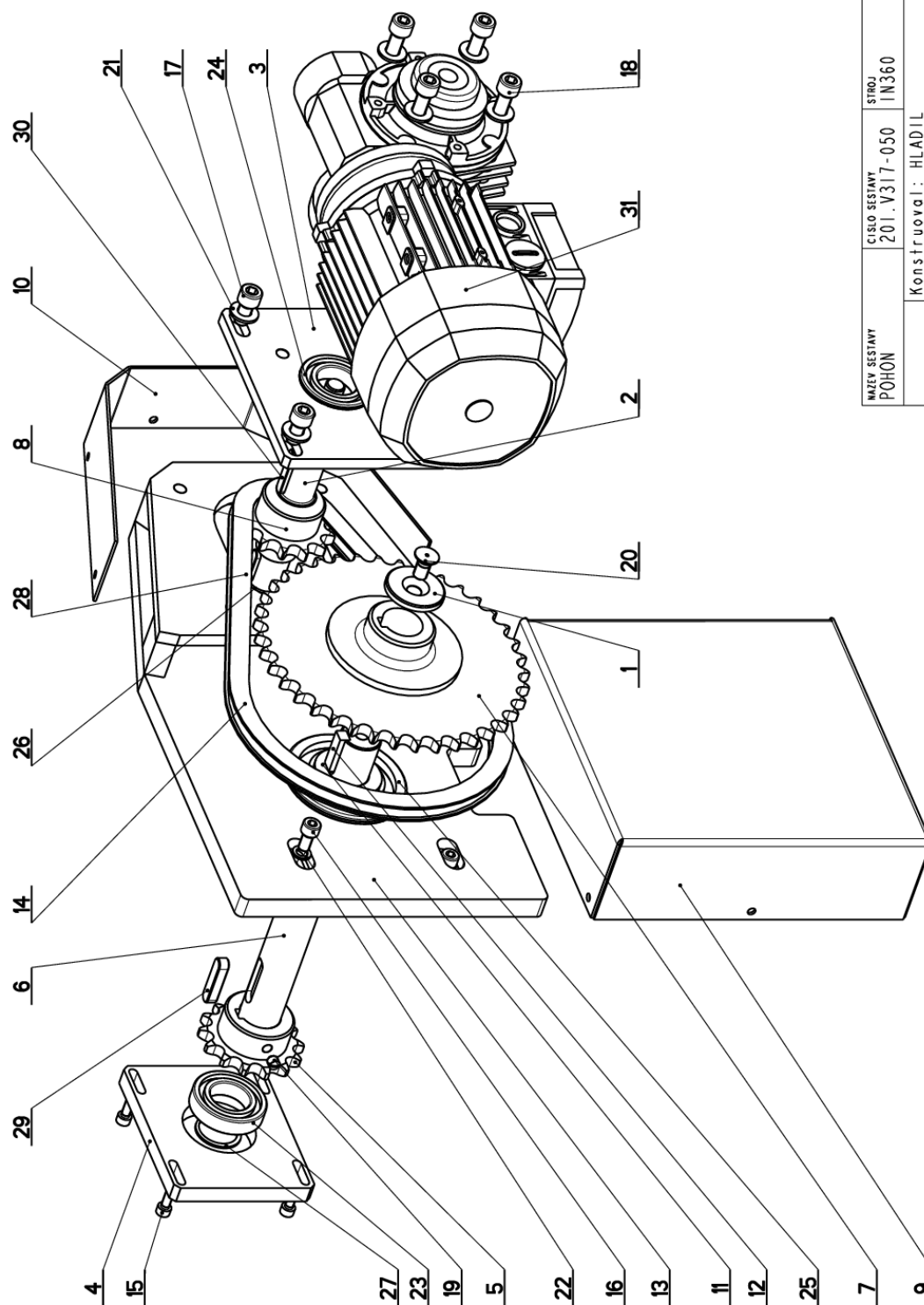
Císlo Sestavy 201.6017-104		Ver. 2	Název sestavy RETEZ POHONOVY/DRIVE BELT/ANTRIEBSKETTE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr
1	30.6017-115	0	STERAC / WIPER / ABSTREIFER	PROFIL 30x30x3
2	90.005.55.002	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M5X10
3	90.100.08.005	0	MATICE / NUT / MUTTER	M5

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

9.5.3. Pohon / Drive / Antrieb



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

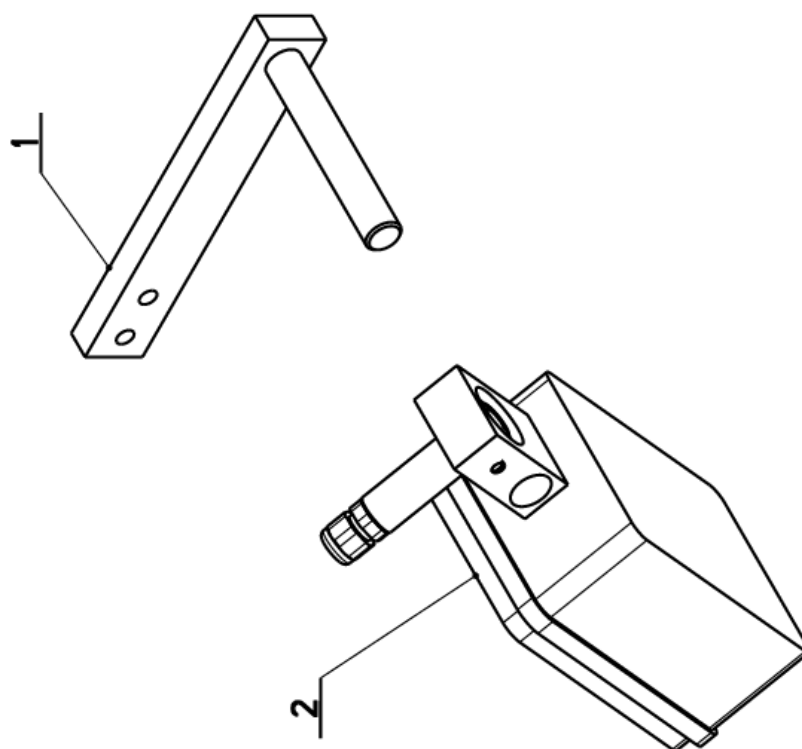
9.5.4. Kusovník / Stückliste / Piece list
Pohon / Drive / Antrieb

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 / UNTERLEGSCHIEBE	d 45	1
2	30.6017-203	1	HRIDEL / 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	HRIDEL / SHAFT / WELLE	D 30	1
7	30.6017-211	0	KOLO RETEZOVÉ / CHAIN WHEEL / KETTENRAD	108-1	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	PŘÍRUBA / FLANGE / FLANSCH	SVARENÝ	1
14	49.200.027	0	RETEZ / CHAIN / KETTE	108-1	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 STAVEČÍ / 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 / UNTERLEGSCHIEBE	PODLOŽKA 10,5	8
22	90.163.00.002		PODLOŽKA / WASHER / UNTERLEGSCHIEBE	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.VNEJŠÍ / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNÝ KROUZEK 25	1
27	95.800.013	0	KROUZEK POJIST.VNEJŠÍ / 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	PREVODOVKA / 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;
Objednací číslo/Purchase order number/Bestellnummer; Název položky/Volume title/Name der Position; Rozměr/Stock size/Abmessung

9.6. Laser-ukazovátka / Laser / Laser

Cislo 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	
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Značka