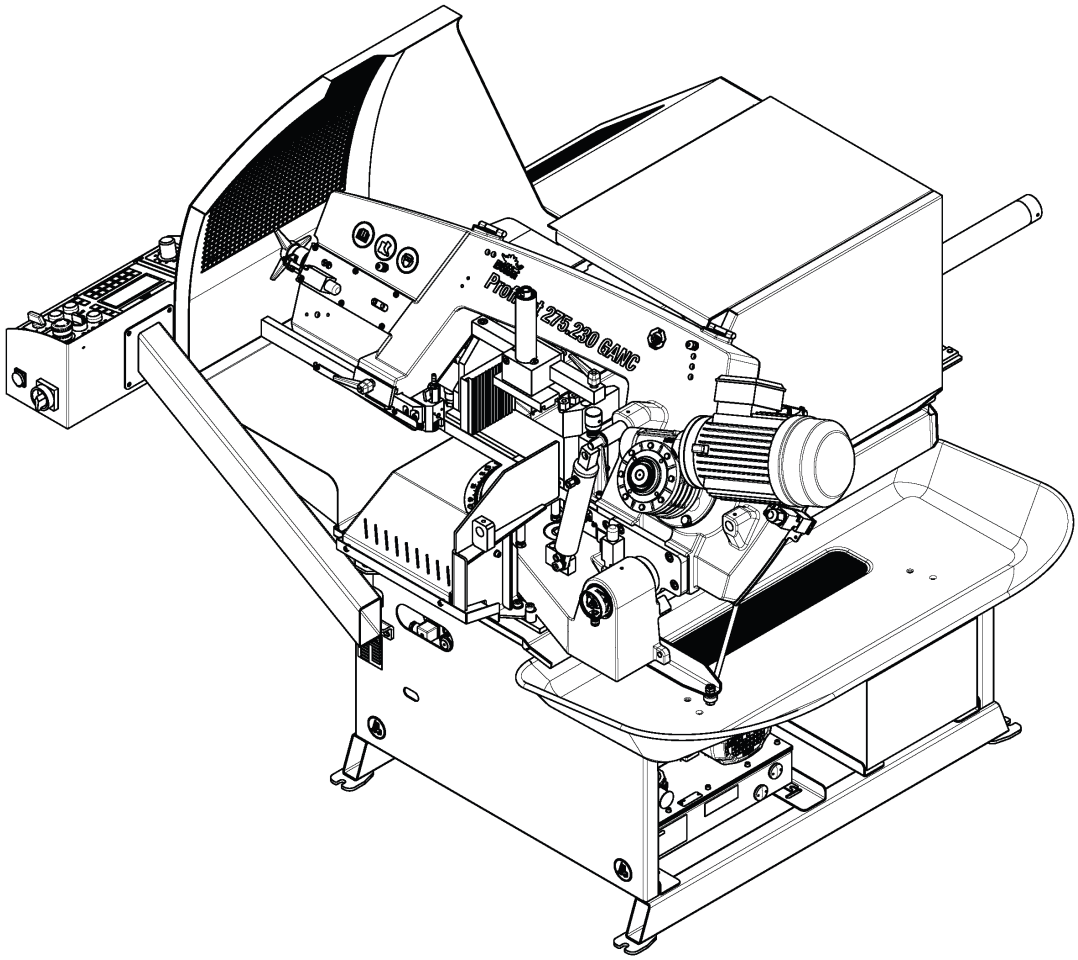
Series **ProfiCut**



BOMAR®

ProfiCut 275.230 GANC

Operating instructions

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. Těžební 1236/1 62700 Brno Czech Republic, EU	telefon: fax: e-mail: www:	+420 – 533 426 100 +420 – 533 426 109 info@bomar.cz http://www.bomar.cz
We are available:		
Mondays to Fridays	7^{00} – 16^{00}	
Version:		
1.13 / March 2021 rev. 1		

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 :	**ProfiCut 275.230 GANC**
Serial number:	011-100000
Manufacturer	**BOMAR, spol. s r.o., Těžební 1236/1, 627 00 Brno**
Product data	
Determination:	for cross dividing and cutting of rolled and towed bars and profiles made of steel, stainless steel, non-ferrous metals and plastics
Description:	Stand, table, cutting unit with the saw band and drive, clamping device, cooling system, el. switch board with control panel.

Pneumatic *NO* ☒ *YES* ☐ Hydraulic *NO* ☐ *YES* ☒ Control system *NO* ☐ *YES* ☒

Technical data:	Cutting rate	40/80 m.min-1
	Cutting angle	0° to 60°
	Total dimensions in mm (lxwxh)	1781 x 2276 x 1700
	Total power requirement	2,2 kW
	Weight	500 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 16093:2017	ČSN EN ISO 13857:2021
ČSN EN ISO 4413:2011		ČSN EN 60204 -1 ed.3:2019
ČSN EN 55011 ed.3+A1:2011	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.

08.03.2021
Ausstellungsort, Datum

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

Alfred Pichlmann, Managing Director
Name and function of the responsible subject, signature

1) Name, address and identification number of the subject issuing the conformity declaration (producer of importer)
2) Person authorized to complete the technical documentation
3) The authorized or accredited body co-operating on the conformity judging

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

Content

1. Bezpečnostní pokyny / Sicherheitshinweise / Safety notes

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

The operating instructions include relevant information. The operator must familiarize himself with the installation and operation, safety notes and machine servicing, to reach maximum reliability and lifespan. The operating instructions serve to avoid risks, which are linked with work on the machine.

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

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

1.1. Machine determination

The band saw are intended for transverse cutting and shortening of rolled and drawn bars and sections made from steel, stainless steel, non-ferrous metals and plastics, **with optional angle cuts of 0° to +60°. It is possible to cut angles to +45° in the automatic mode, angles bigger than +45° or equal to+45° can be cut only in the manual mode– without usint of the feeder.**

Combustible materials are excluded from 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 clothing 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! Unsuitable shoes may cause balance loss and following injury. Falling pieces may cause serious injuries too.

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

Always wear ear protection! 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!
Mind the safety signs on the machine. Do not remove or damage them! Keep these labels still readable!

1.3. Safety notes for machine operator

Follow the 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!

Machine can be operated only by one person.

Machine operator is responsible for other people present near 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.

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

Close covers before starting the machine and check, if the covers are not damaged. Damaged covers must be repaired or changed immediately. 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!

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- Do not remove the chips from the working area of the machine, when the machine is started on!
- Do not use the compressed air for the machine cleaning or for the chips removing!
- Use the protective instruments for chips removal!

1.4. Safety notes for the servicing and repairs

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

Switch off the main switch and lock it, before you start service work! The 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!

If the machine is rebuilt or any change is made at the machine arbitrarily, the warranty on the machine becomes invalid and the company BOMAR, spol. s r.o. accepts no responsibility for any resulting damage!

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

1.5. Safety notes for the cooling

Attention!
- *When handling the coolant, folow the safety regulations and the instructions of the coolant manufacturer!*
- *When handling cooling agents always wear hazardous fluid-proof gloves!*
- *Wear protective goggles!*
- *Cooling liquid can get in contact with your eyes and may cause permanent severe injuries*

1.5.1. Instructions for first help

Pull off and safely remove polluted, soaked clothing.

For breathing, go out in the fresh air or look for first aid treatment.

Wash with water or use crèmes for contact with the skin.

Flush with water for eyes and look for first aid treatment.

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

1.6. Safety instructions for laser barriers

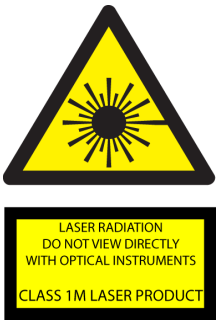
Machine for its function using laser sensors for control and security purposes.

Laser sensors for control purposes are located on the feeder.

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

It is forbidden to look to the laser ray!

The laser at this machine is 1M class.



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 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.

1.7.1. 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.**

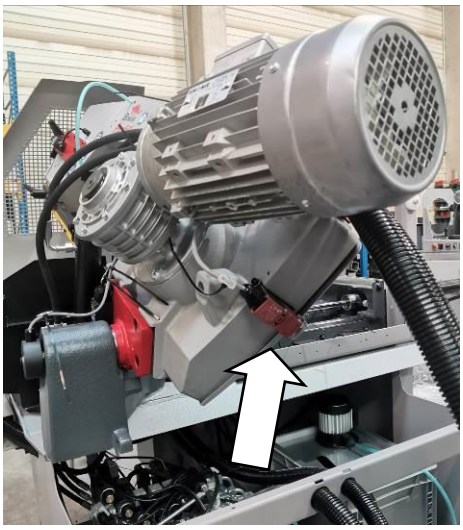
If any damages or fault appears, immediately press **Emergency Stop Switch!**

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.

1.7.2. Arm cover

If the cover is opened during operation, the limit switch is opened and the band saw is stopped. The machine cannot be run with the arm cover open even in the service mode.



Make sure the arm cover is closed before starting the machine!

1.7.3. Saw band covers

These three covers cover the band of the saw

- from the moveable guiding cube to the arm

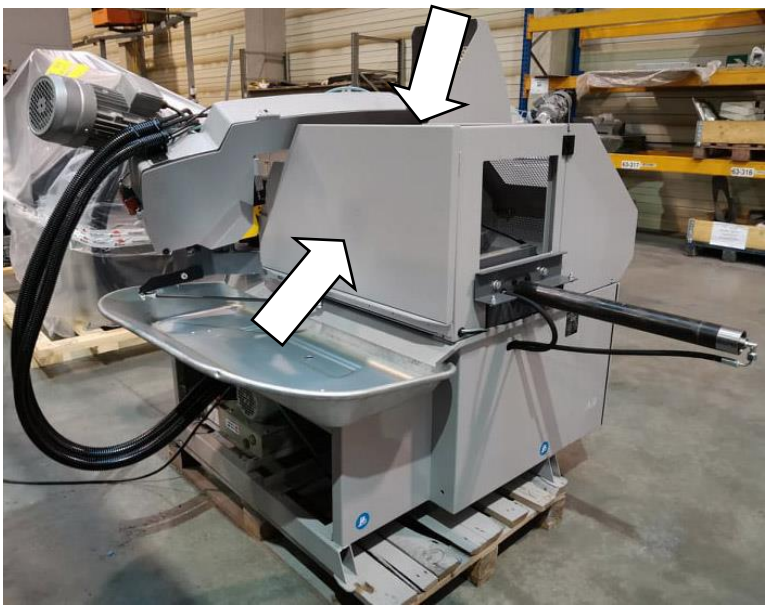
- from the jaw of the vice to the arm (both sides)

Never turn the band drive on, if these covers are not mounted

1.7.4. Feeding vice covers

These covers avoids the service workers in entrance to the feeding vice during operation. The service workers are protected before injury.

Sliding feeder cover (side and upper)



The cover is joined to the saw arm and the cover changes its position according to turning of the arm to required cutting angles, so that the feeder is sufficiently protected and at the same time the covers do not hinder the saw arm turning.

Openable cover locked with a lever

If the cover is opened during cutting, the limit switch is unfastened (see. arrow), the machine is stopped. The band saw is not possible start in set mode.

If the machine or feeder cannot be started and no other causes are known, first of all carefully check whether the lockable covers are closed!

If the machine can not be started and other causes are unclear, first check carefully if this cover is closed.

Fixed cover

The machine can be put back into operation only after all covers have been installed and closed!

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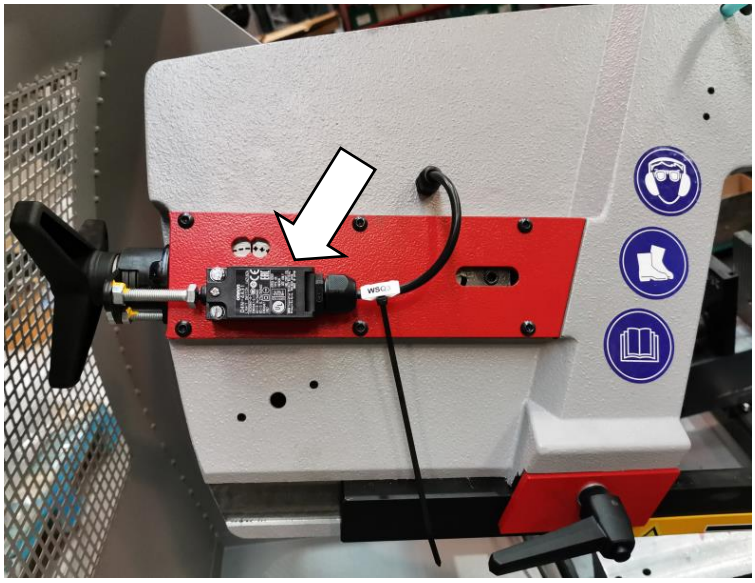
1.7.5. Saw band stretching and rupture inspection

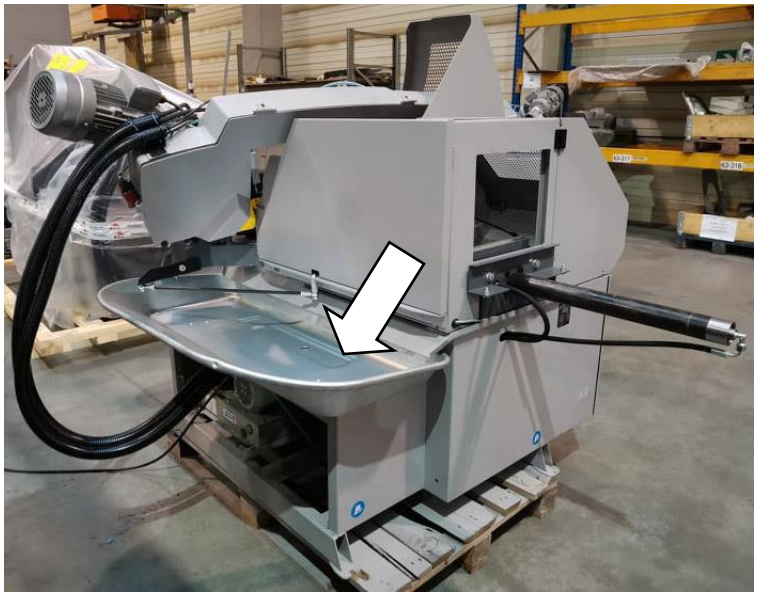
This device checks the saw band tension and causes immediate machine stop if the band incidentally ruptures.



The device includes a limit switch. Its adjustment is described in chapter „Servicing and adjusting". Check the switch carefully and periodically – adjust it if necessary.

1.7.6. Prevention of leakage of coolant

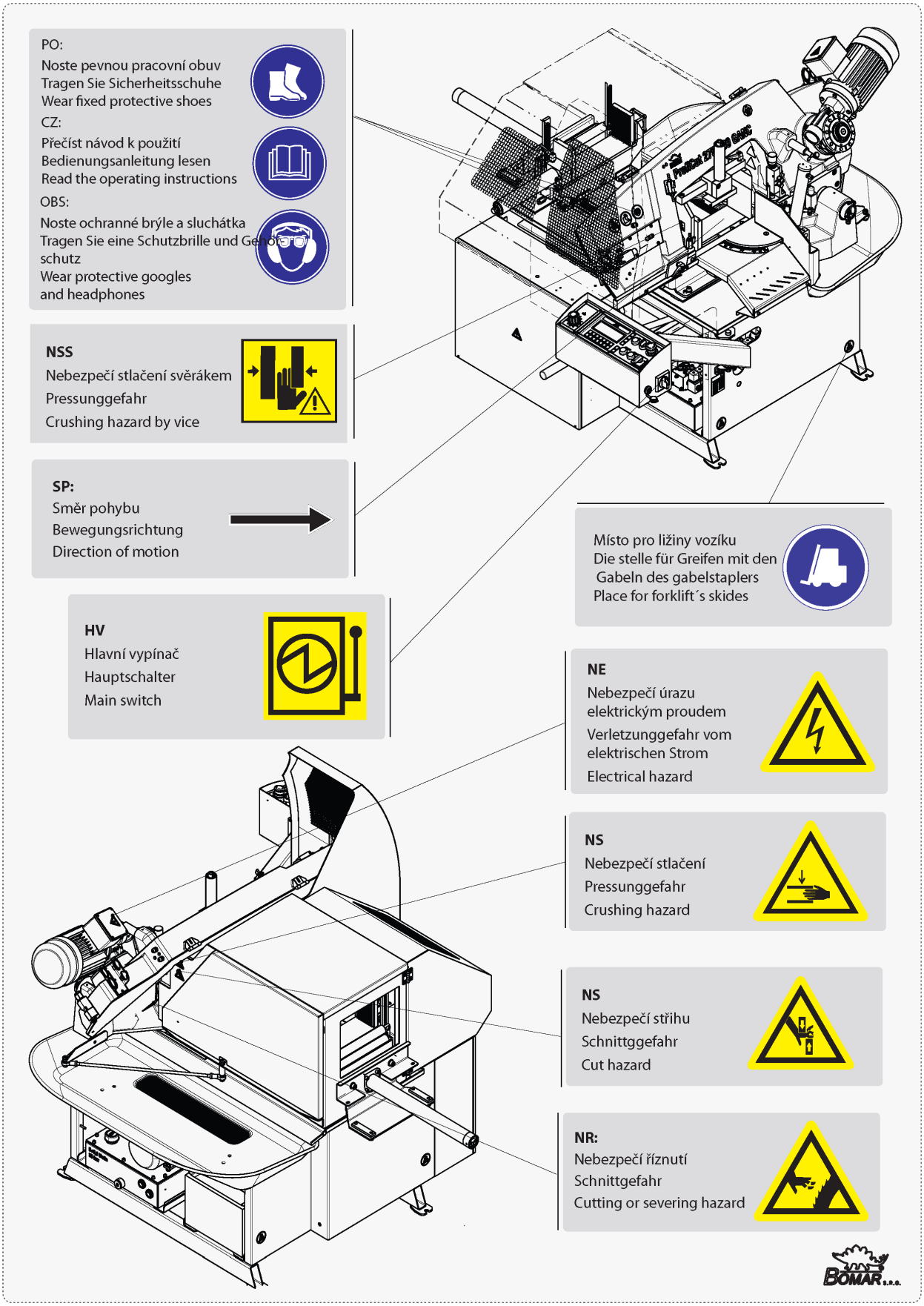
It is forbidden to operate the machine if the tank for draining of coolant is not installed!



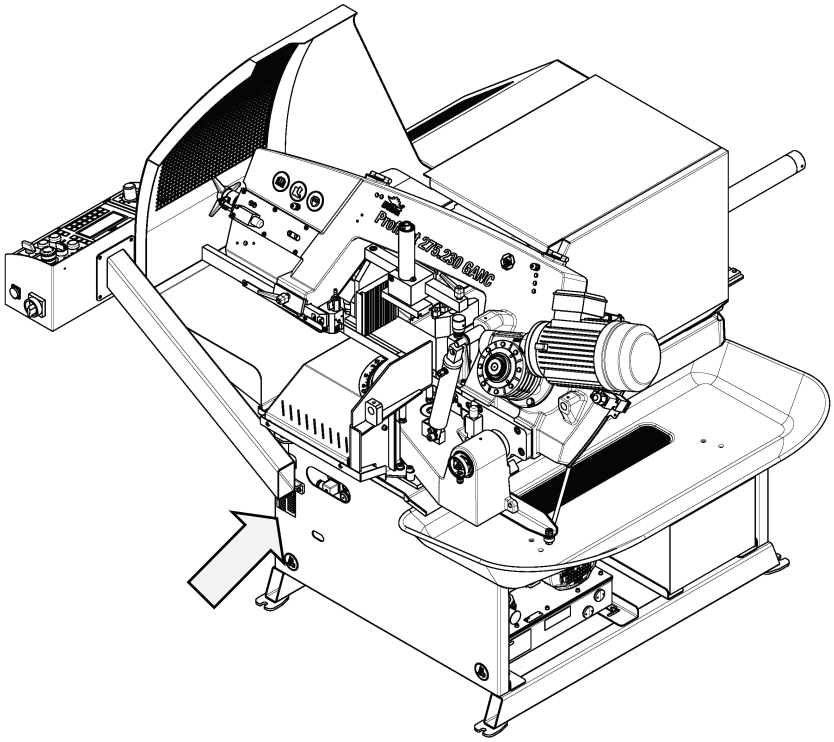
if the tank for draining of coolant is not installed, there is a risk of leakage of coolant to the surroundings of the machine and and the breakdown of the coolant into the electrical installation of the machine.

In the event of leakage of the cutting fluid to places other than those specified, the machine must be switched off by means of the main switch and the liquid removed from these places

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



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



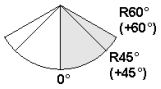
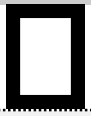
2. Dokumentace stroje / Dokumentation der Maschine / Machine documentation

2.1. Technická data / Technische Daten / Technical data

Hmotnost stroje / Maschinengewicht / Machine weight:	
• Hmotnost / Gewicht / Weight	500 kg
Rozměry stroje / Maschinengröße / Machine size :	
• Délka / Länge / Lenght	1781 mm
• Šířka / Breite / Width	2276 mm
• Výška / Höhe / Height	1700 mm
Elektrické vybavení / Elektrische Ausrüstung / Electical equipment:	
• Napájení / Versorgungsspannun / Supply voltage	~ 3 x 400V, 50Hz, TN-C-S
• Příkon / Gesamptschlusswert / Total Input	2,2 kW
• Max. jištění / Max. Vorschaltsicherung / Max. Fuse	10 A
• Krytí / Schutzart / Protection	IP 54
Akustický tlak / Schalldruckpegel / Acoustic pressure:	
• ProfiCut 275.230 GANC	L_{Aeqv} =70 dB
Pohon / Antrieb / Drive:	
• Typ / Type / Type	**91.001.381** MSD 90L-8/4 B14-FT115
• Napájení / Versorgungsspannun / Supply voltage	~ 3×400V, 50Hz
• Výkon / Leistung / Output	0,7/1,1 kW
• Jmenovité otáčky / Motornenndrehzahl / Nominal speed	1420 min^{-1}
Hydraulické zařízení / Hydraulikeinrichtung / Hydraulic equipment:	
• Typ / Type / Type	**92.001.151**
Chladící zařízení / Kühlmiteleinrichtung / Cooling equipment:	
• Typ / Type / Type	**91.020.032** 41POMPA70120
• Obsah nádrže / Volumen vom Kühlmittel / Capacity	10 l
Rozměr pásu / Sägebanddimension / Band size:	
2720×25(27)×0,90 mm	
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:	
40/80 m/min	

Acoustic pressure level:
The equivalent level of the acoustic pressure A (noise) in the position of the operator is L_{Aeqv}= 70 dB. The values are indicating the emission levels and may not present safe working levels. Among the factors, which influence the real values of the operator's exposure, are properties of the workshop room, type of cut material and level of wear of the saw band – these may significantly influence the exposure levels.

Řezné rozsahy / Schnittbereiche / Cutting size:

				
0°	Ø230	275 x 180	250 x 230	230 x 230
R 45° (+45°)	Ø190	190 x 150	170 x 230	180 x 180
R 60° (+60°)	Ø120	120 x 100	120 x 100	100 x 100

Caution!

It is possible to cut angles to +45° in the automatic mode, angles bigger than +45° or equal to+45° can be cut only in the manual mode – without usint of the feeder.

For angles bigger than + 30 °, the feed of the feeder is reduced and the length of the smallest residue piece is increased.

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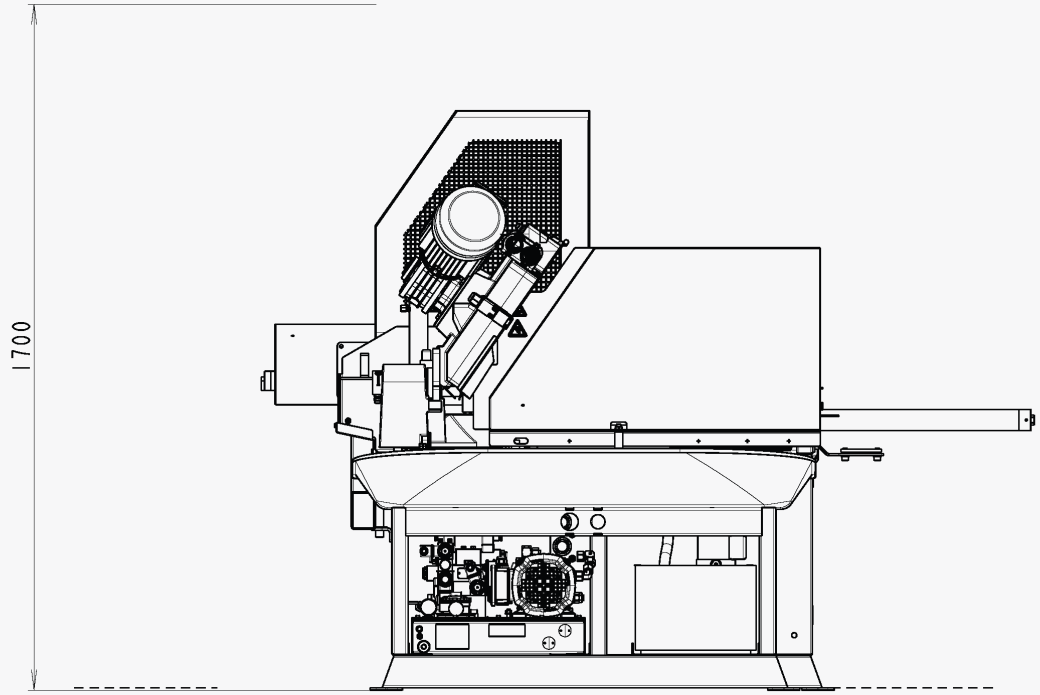
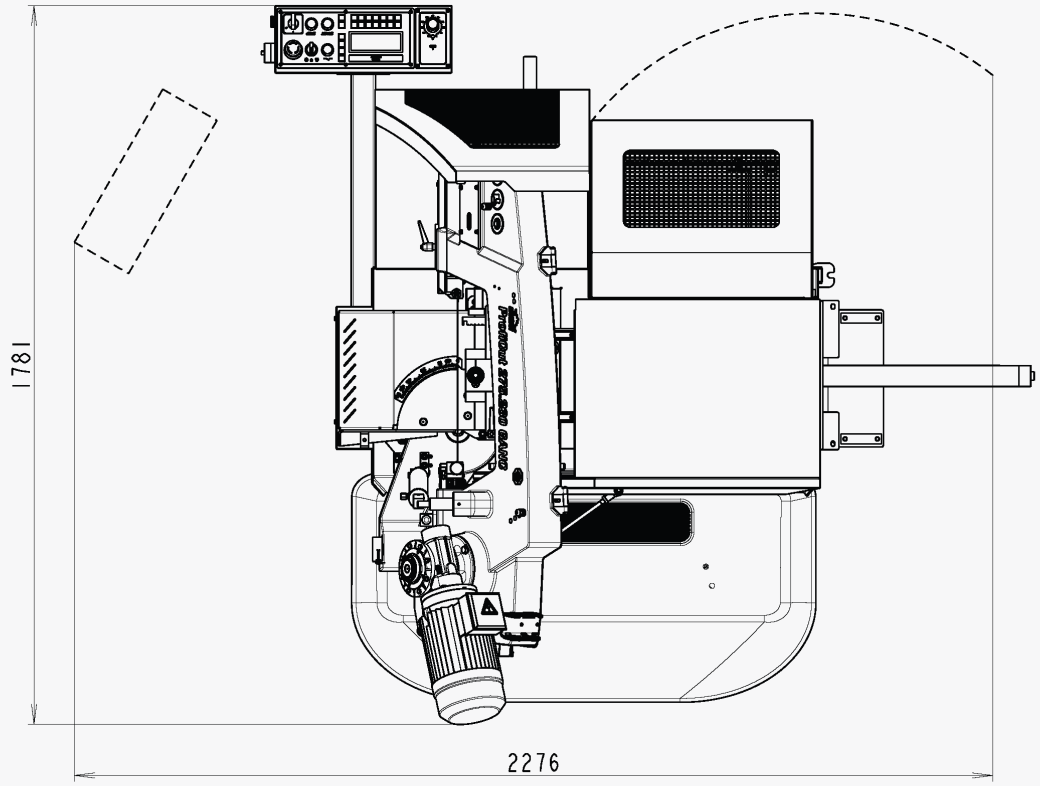
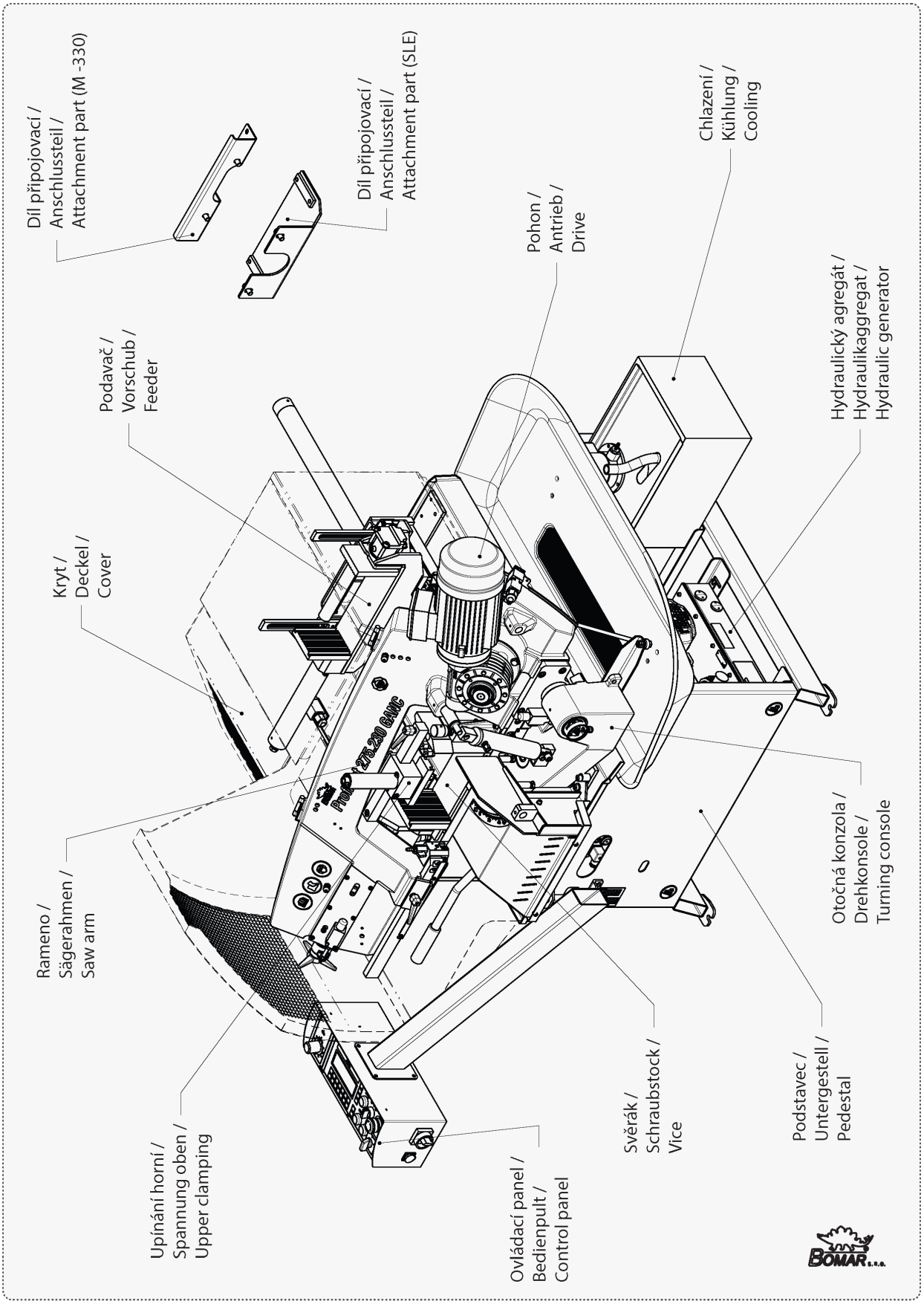
2.2. Rozměrové schéma / Aufstellzeichnung / Installation diagram





2.3. Popis / Beschreibung / Description



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2.4. Transportation and stocking

2.4.1. Conditions for transportation and stocking

Follow the recommendations of the manufacturer for transportation and stocking! If the recommendations are not kept, damage may occur to the machine.

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

2.4.2. Transport and stocking preparations

Close the vice and thoroughly oil all smooth 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.

To transport the machine must be absolutely bolted to a pallet! Ensure that the palette was strong enough to carry the machine!

2.4.3. Transport and stocking

Make sure that the hand pallet truck; the forklift truck or the crane and the suspension cables had sufficient capacity. Use only shackles with appropriate 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!

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

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

2.5. Activation of the machine

2.5.1. Machine working conditions

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

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

- At air temperature 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 condensing).
- Altitude up to 1000 meters.
- Do not expose the machine to the radiation (for example microwave radiation, ultra-violet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.

2.6. Band saw unpacking and assembling

1. Remove the wrapping from the machine and unpack all parts.

> ***Attention!***
> *Switch off the main switch and lock it in position, before you start the assembly! Otherwise, there is a possibility of an accidental machine start.*

2. Now put all enclosed parts to place.

2.6.1. Attachment of the cooling liquid tub

Caution!

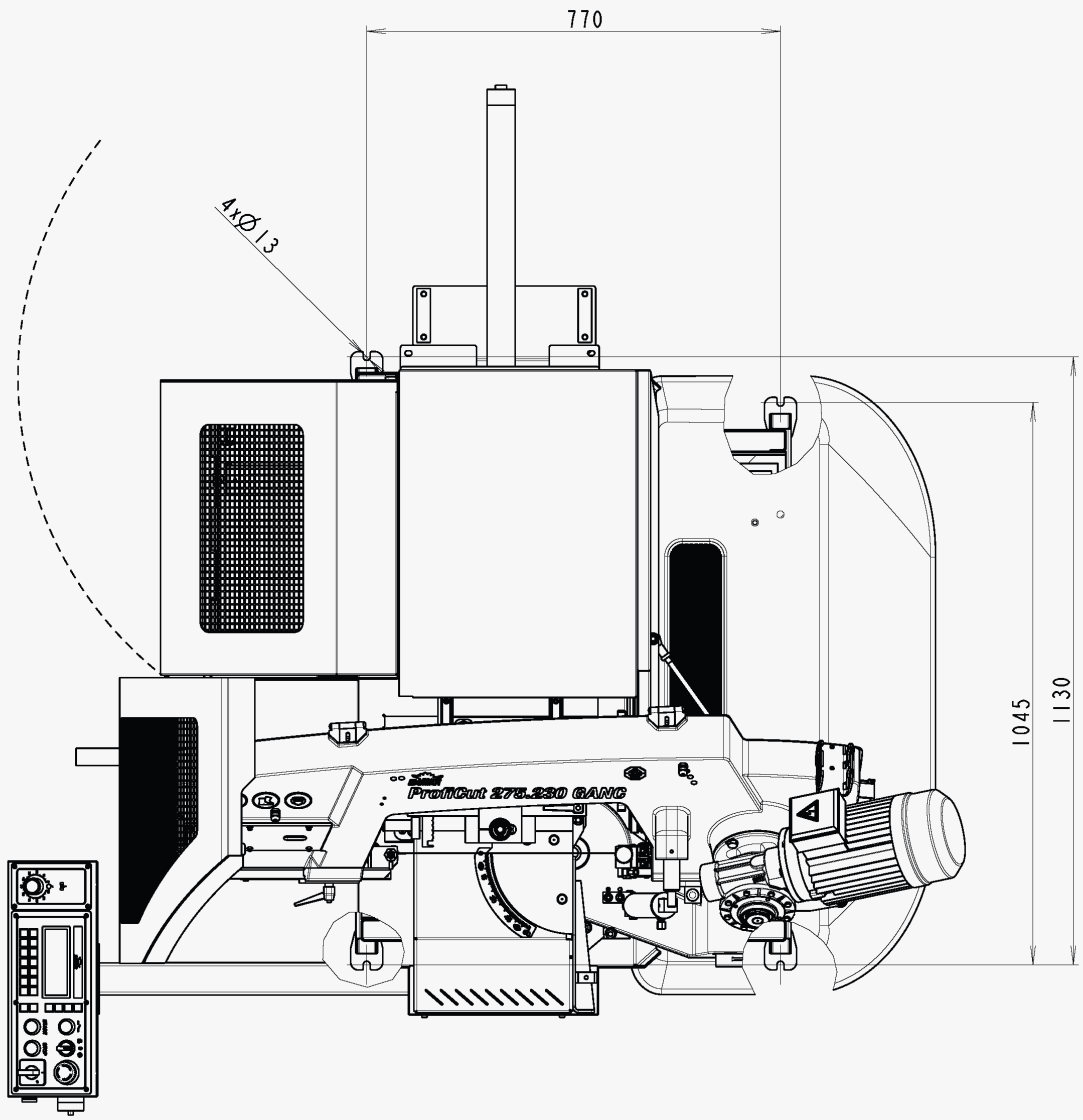
It is forbidden to operate the machine if the tank for draining of coolant is not installed!

if the tank for draining of coolant is not installed, there is a risk of leakage of coolant to the surroundings of the machine and and the breakdown of the coolant into the electrical installation of the machine.

1. Put the tub for the dripping off of the coolant on the pedestal from the side of the saw

2. Attach the hose for the coolant removal to the outlet of the tub and put its other and immerse its other end into the coolant tank.

2.6.2. Kotevní plán / Verankerungsplan / Grounding plan



Kotvící materiál / Verankerungsmaterial / Grouding material

- 4× Chemické hmoždiny / Chemische dübel / Chemical plug – ø12 mm
- Vrtáno do hloubky / In die Tiefe gebohrt / Drilled to – 140 mm
- 4x Šrouby / Schraube / Screws – M12

Šrouby podložit deskami o min. rozměrech P10×100-100
- Die Schrauben mit Platten mit Minimaldimensionen P10×100-100 unterlegen
Screew 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

2.6.3. Machine installing and leveling

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

Minimal requirement:

Machine weight – ProfiCut 275.230 GANC – 500 kg

+ weight of the 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. Electrical connection

Attention!
Only a qualified professional must carry out the servicing and repairs of the electric equipment! Take special care during work with the electrical equipment. High voltage accident can have fatal consequences! Always follow instructions for work safety.

Electrical parameters of the machine:

- Service voltage: ~ 3×400 V, 50 Hz, TN-C-S
- Total input : 2,2 kW
- Max. fuse: 10 A

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

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

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

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.

The input line is equipped with a 16 A socket for connection of the machine to the electric supply line.

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

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

2.6.5. Check the direction of the saw band

After the machine has been successfully connected, switch on the machine and run the driving engine of the band briefly. The movement of the band must be in agreement with the direction of the arrow on the saw band cover.

If the direction of the saw band does not agree, the phases at the terminal line must be switched.

2.6.6. Filling of the cooling system

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

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.

When filling the tank with the cooling liquid, take care that the liquid does not drip out of the tank and that the tank does not overflow.

When adding anticorrosion agents, antifreeze and other chemicals follow the instructions of the manufacturer! By mixing various products poisonous and aggressive chemicals can be created that can damage your health or the cooling equipment of the machine.

2.7. Machine functions check

Before you start the check study the chapter *Machine control* thoroughly. Do not proceed with the check if you did not fully understand all control elements and machine functions.

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

Check, if all 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 and the feeding vice. Drive the front feeder from the front position to the rear position. 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

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

To reduce the risk of injury, refit the saw band cover only after you have installed and tightened the saw band.	

2.9.1. Saw band size

2720×25(27)×0,90 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 a constant tooth pitch all over its length. This type is suitable for cutting solid materials.

BOMAR recommended Variable tooth system for band saw.

1. *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 the table below the type of the tooth system depending on the sizes and profile of the cutting material is advised.

Footnotes:

Z_pZ – teeth number on one inch

S – tooth with zero angle of the teeth

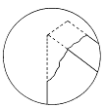
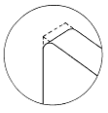
K – tooth with positive angle of the teeth

Examples of the tooth system marking:

32 S – number „32" means 32 teeth per inch (constant tooth system),
letter „S" marks teeth with zero angle with respect to the band.

4–6 K – number „4–6" means 4 to 6 teeth per inch (variable tooth system);
letter „K" marks teeth with positive angle with respect to the band.

2.9.3. Saw band running-in

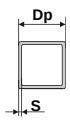
To achieve the full life of the blade is recommended to carry out its initial run. **Running-in:** Cut the material with the frame lowering reduced to 50% only. When vibrations occur increase or decrease the band speed. When cutting **large pieces** run the band for 15 minutes approximately. When the 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.	 

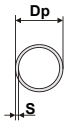
Note:
Run regrinding saw bands too.

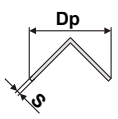
The optimal running in of the saw band produces ideal rounded cutting edges and therefore the conditions for an optimal service life.

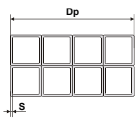
2.10. Table for teeth selection

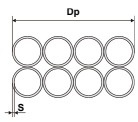
SHAPED MATERIAL (D_p, S = mm)









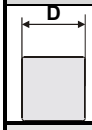


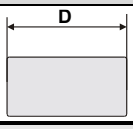
Note: Table shows tooth system selection for cutting one piece of the profile. For cutting of more pieces of the profiles (bundle), you must think of the size of the wall as double size of the wall of one profile (that means, size „S" equates to 2×S). In table, there are tooth systems constant and variable.

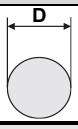
Size of the wall S [mm]	Tooth system (Z_pZ) Outer diameter of the profile D_p [mm]					
	20	40	60	80	100	120
2	32 S	24 S	18 S	18 S	14 S	14 S
3	24 S	18 S	14 S	14 S	10–14 S	10–14 S
4	24 S	14 S	10–14 S	10–14 S	8–12 S	8–12 S
5	18 S	10–14 S	10–14 S	8–12 S	6–10 S	6–10 S
6	18 S	10–14 S	8–12 S	8–12 S	6–10 S	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

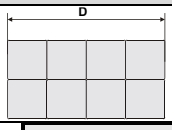
Size of the wall S [mm]	Tooth system (Z_pZ) Outer diameter of the profile D_p [mm]					
	150	200	300	500	750	1000
2	10–14 S	10–14 S	8–12 S	6–10 S	5–8 S	5–8 S
3	8–12 S	8–12 S	6–10 S	5–8 S	4–6 K	4–6 K
4	6–10 S	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K
5	6–10 S	5–8 S	4–6 K	4–6 K	4–6 K	3–4 K
6	5–8 S	5–8 S	4–6 K	4–6 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

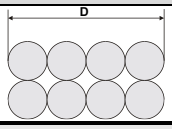
SOLID MATERIAL (D = mm)











Constant tooth system	
length of the cut D	tooth system (Z_pZ)
to 3 mm	32
to 6 mm	24
to 10 mm	18
to 15 mm	14
15–30 mm	10
30–50 mm	8
50–80 mm	6
80–120 mm	4
120–200 mm	3
200–400 mm	2
300–800 mm	1,25
700–3000 mm	0,75

Variable tooth system	
length of the cut D	tooth system (Z_pZ)
to 30 mm	10 –14
20–50 mm	8–12
25–60 mm	6–10
35–80 mm	5–8
50–100 mm	4–6
70–120 mm	4–5
80–150 mm	3–4
120–350 mm	2–3
250–600 mm	1,4–2
500–3000 mm	0,75–1,25

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. Ovládání stroje / Bedienung der Maschine / Machine control

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3.1. Starting the band saw

»

1. Switch on the main switch of the band saw. The main switch is placed on the switchboard side.

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

2. When prompt appears

…activate the machine safety circuit with the button on the machine control panel.

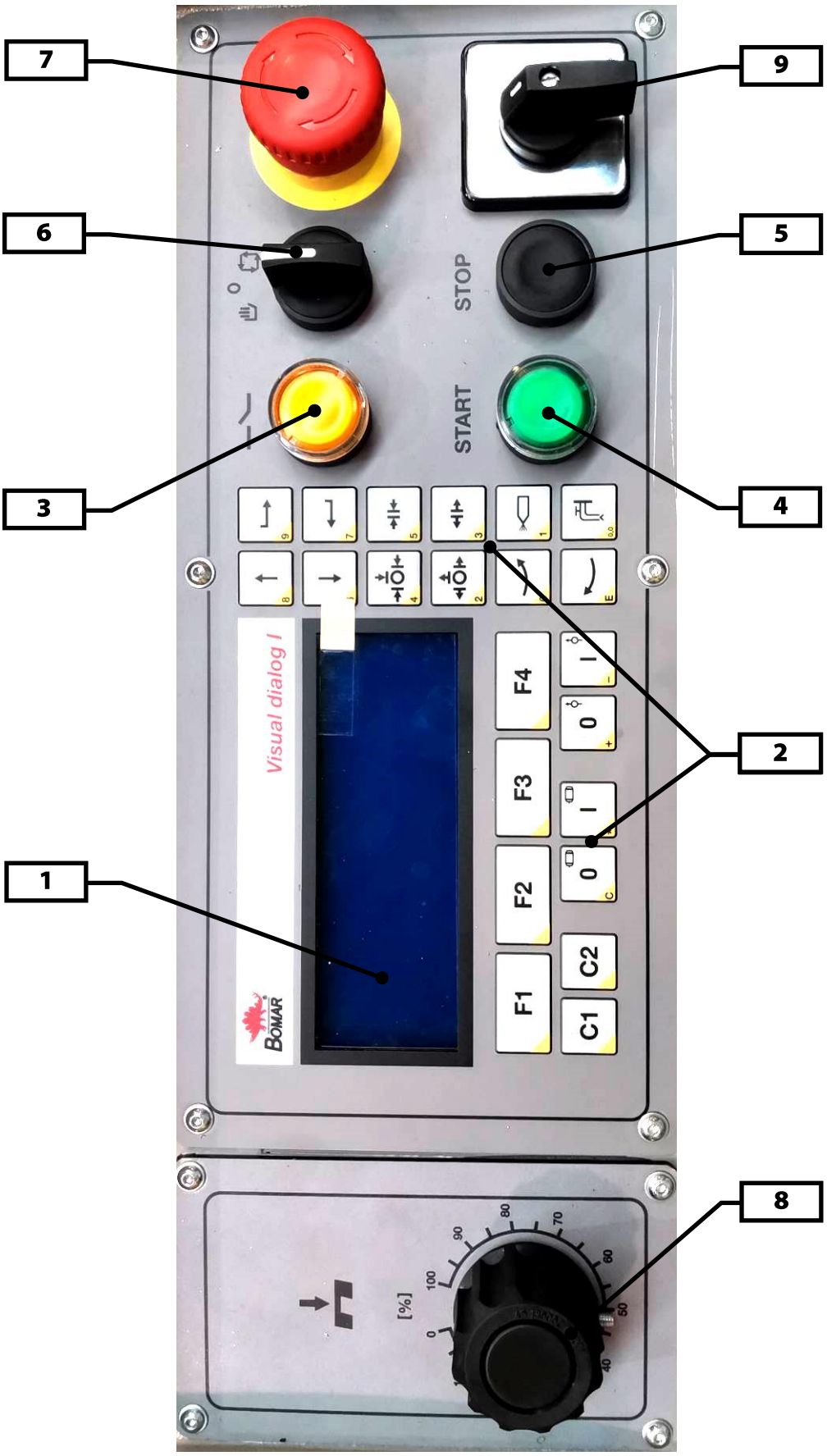
Unless the safety circuit is activated, the machine cannot be started.

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

3. After the safety circuit is activated, the first screen of the selected mode appears according to the mode selected (see the mode selector position).

4. Reference the machine – see the chapter on the machine referencing

3.2. Control panel – description



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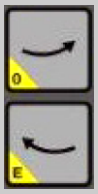
1	**LCD** LCD displays status information and menu. **F1 – F4** – function keys to confirm information shown on the screen. If the text shown refers to a key, the given information can be confirmed by pushing the indicated key.
2	**Control keys / numeric keypad.**
	**Shoulder movement** Pressing and holding the buttons raises or lowers the boom with the lift hydraulic cylinder. When the arm is raised using the button, the arm can be lifted over the entire lift cylinder range.
	**Without function**
	**Turn on / off saw blade** Button with symbol „I" turns on saw blade drive, button with symbol „0" turns off saw blade.
	**Feeder movement** Pressing and holding button move with feeder to and from the machine (in manual mode) If the **STOP** button is pushed and held simultaneously with the button for movement of the saw feeder, the **MICROFEED** in the given direction is activated.
	**Open/Clamp feeder vice** Pressing and holding button open or clamp feeder vice in manual mode. At the same time, the vice thrust (optional accessory) is enabled/disabled. ***Warning:*** Feeder vice must be clamped always before main vice is clamped.
	**Open/Clamp main vice** Pressing and holding button open or clamp full stroke vice in manual mode. At the same time, the vice thrust (optional accessory) is enabled/disabled. ***Warning:*** Feeder vice must be clamped always before main vice is clamped.
	**Turn on /off hydraulic circuit** Button with symbol „I" turns on hydraulic circuit, button with symbol „0" turns off hydraulic circuit. The hydraulic circuit is controlled automatically when you run a semi-automatic / automatic cycle on / off.
	**Cooling system selection** Top – Cooling with Microniser (optional accessories) Bottom – Machine rinsing, cooling pump running even when belt drive is off.

C1 C2	**Without function**
3	**Safety circuit** Switch on the safety circuit by pressing button.
4	**Start cycle** After pressing the button will start the cutting cycle.
5	**STOP button** After the button is pushed, the cutting cycle is interrupted or switched off.
6	**Selecting a mode machines** **0** for settings and service  for manual mode  for automatic mode **Manual mode** In the manual mode, it is possible to: - manually (by pushing buttons) control the individual machine functions - start the semi-automatic cycle by pushing the START button (4); the semi-automatic cycle can be interrupted/ended with the STOP button (6). **Automatic mode** After the mode is started, fully automatic mode is running according to the preset program. **Main menu of the machine** Enabling entry in menus in which the service and user setting parameters can be changed**.**
7	**Emergency Stop Switch** In the case of health or operational safety risk, push the Emergency Stop Switch – all dangerous movements of the machine are IMMEDIATELY stopped.
8	**Regulation of the rate of descent of the arm to the cut** By turning the valve, the boom descent speed can be continuously adjusted (the final **working speed** in the section is further influenced by the ADFR setting - pressure control in the section). **Attention!** If the throttle valve is tightened too tightly when closing, the valve seat may wear off which causes its leakage. Therefore, close the valve always gently.

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9	**ProfiCut 275.230 GANC without a frequency converter**  **Cutting speed switch** Serves to switch the speed of the saw band during cutting (**40** or **80** m. min^{-1}). **ProfiCut 275.230 GANC with a frequency converter**  **Frequency converter – setting of the cutting speed** Serves to set the speed of the saw band during cutting with the possibility of the frequency converter (**20** to **120** m. min^{-1}).

10	**USB port (optional accessory)** Can be used for load/save cutting data.
11	**Main switch**

3.3. Machine referring

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

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

If the machine is not referenced:

- the SERVICE and ADJUST parameters can be changed

- only limited machine movements can be controlled in the manual mode

  The display, however, still shows the message <REF>, which warns that the machine has not been referenced.

- The machine cannot be controlled in the automatic mode.

Machine referencing procedure

1. Remove all objects lying in the track of the machine referencing units.

Attention!

Before starting the referencing, remove all material from the saw and feeder. Do not reference the machine with material clamped in one of the vices! There is a risk of collision!

To release the material before referencing, the vices can be opened in the manual mode.  .

2. **Turn the saw arm to an angle lesss than 45 °.**

The feeder is blocked and it is not possible to strat referencing of the machine. for angles ≥.45°-

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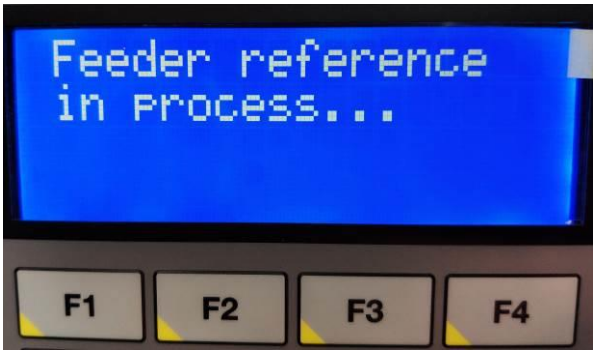
3. Turn the switch to the automatic mode.

   Information appears that the machine is not referenced.

4. **To start referencing, push the START button.**

   The display shows information on referencing in progress.



   The **sequence of reference movements** is executed.

   - arm positioning to the maximum cylinder stroke (the arm referencing is equipped with a height measurement sensor)
   - clamping/releasing of the feeder vice
   - clamping/releasing of the main vice
   - forward feeder travel
   - main vice detection
   - time delay – reference adjusted

5. After successful referencing, the display shows information that the **reference is completed.**

   Confirm with the F4 <OK> button.

6. **The screen for starting the automatic mode appears** – the machine is ready for automatic operation.

3.4. Machine control in manual mode

Caution!

It is not possible to control the feeder if a set arm angle is equal to+45° or bigger than +45°.

For angles bigger than + 30 °, the feed of the feeder is reduced and the length of the smallest residue piece is increased.

3.4.1. Meaning of symbols on the manual mode screens

The LCD shows symbols indicating the course of the individual functions as a mechanism to check function of the individual commands.

Meaning of symbols:

ϕ	hydraulic circuit symbol (right bottom corner) indicating function of the hydraulic pump
|Ξ| >|	saw band cooling symbol (right bottom corner) - water/micronizer selection - indicating function of cooling
OO	saw band drive symbol (right bottom corner) indicating function of the saw band By means of the speed control button, speed can smoothly be set within the given range; current speed of the saw band is then indicated on the display directly.
< > F3	bracket symbol **<>** above the **F3** key indicates function of the main vice If the vice is clamped, this state is indicated by the **>O<** symbol in brackets. **Note:** This output for the main vice clamping is given by the pressure switch. If the symbol does not appear after clamping, it is **NECESSARY** to adjust the pressure switch; otherwise the machine **CANNOT** be started.

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< > F2	the bracket symbol <> above the **F2** key indicates function of the feeder vice. If the vice is clamped, this state is indicated by the **>O<** symbol in brackets. **Note:** This output for the main vice clamping is given by the pressure switch. If the symbol does not appear after clamping, it is **NECESSARY** to adjust the pressure switch; otherwise the machine **CANNOT** be started. **WARNING!** **Correct function / clamping function of the feeder vice must only be checked with loaded material of the minimum width of 5mm!** **If you clamp material of a lower width in the feeder vice, the clamping will be indicated by the > X < in brackets; in this case, the machine CANNOT be started.** **The signal for > X < comes from the limit switch located in the rear part of the feeder and detects empty clamping.** **In the automatic mode, material of a lower width than 5mm cannot be cut (the material is clamped with the feeder).** **In the manual and semi-automatic mode, material of a lower width than 5mm can be cut (the material is not clamped with the feeder).**
↓	symbol of the arm declining to cut indicates function of the arm movement in both directions (left bottom corner)

3.4.2. Manual machine operation in the manual mode

The manual mode is used for **simple control of the individual machine functions by means of the individual control buttons** - that is, buttons on the numeric keyboard and function keys F1-F4

1. To control the machine in the manual mode**, switch it to the manaul mode** – the mode selector to the position  .
2. The LCD shows the **main screen of the manual mode**, containing information on the feeder position and the cutting speed selected, as well as symbols indicating the course of the individual functions.

3. By pushing or holding the individual buttons on the control panel, the individual functions of the machine can be controlled.

   When the individual buttons are pushed, the LCD shows symbols of running functions, which are simultaneously used as a mechanism to check function of the individual commands.

   Meaning of symbols - see the chapter on meaning of symbols on the manual mode screens.

   Control buttons – see description of the control panel

3.4.3. Execution of semi-automatic cut in the manual mode

By means of the semi-automatic cycle, it is possible to execute automatic **sequence of one cut, without feeding the selected length.**

The required material length can only be measured manually - with a scale or stop.

The material must be loaded **manually (not by means of the feeder - risk of collisions!).**

To cut off every piece, it is always necessary to load or push material **manually** and restart the semi-automatic cycle.

NOTE:

Before starting the semi-automatic cut, it is NECESSARY to select suitable cutting conditions with regard to the required cutting quality of the piece divided.

Machine operation during execution of semi-automatic cut:

1. **Set the jaws of vices according to the material width**

> ***Caution!***
> ***Even if the jaws are not adjusted properly and a material is not clamped properly the band saw starts a cut. The material and / or the machine can be damaged!***

2. **Switch the machine to the manual mode** – mode selector to the position. 

   The LCD shows a screen with information on the machine state, containing information on the feeder position, cutting speed selected, position (height) of the saw arm as well as symbols indicating the course of the individual functions.

3. **If the saw band obstructs insertion of a materiál, use the buttons for manual saw arm control to move the saw arm to the height so that the material can be inserted.**

   Recommended height is min. 10 mm above the material.

4. **Manually (without the feeder) insert material to the main vice.**

> ***Attention!***
> ***During loading, the material must not be inserted into the main vice with the feeder! There is a risk of the material face colliding with the main vice!***

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5. **Align the material.**

   The material can be aligned by being clamped in two vices.

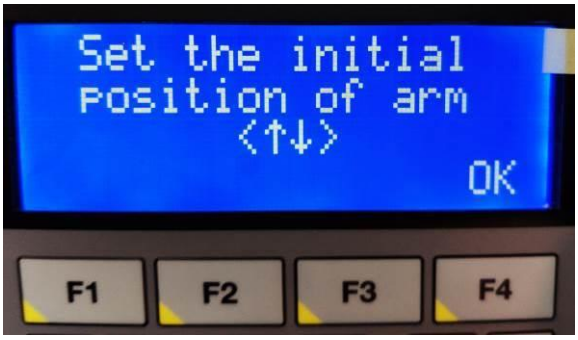
6. **Manually (without the feeder) adjust the required length of the piece cut.**

7. **Push the START button.**

8. **Next steps depends on the fact whether the initial arm position before cut HAS BEEN or IS NOT set**

- **If any arm initial position before cut IS NOT set**

  a) The appeal to set the position appears after START pushing:



  b) Confirm the appeal with the **F4 <OK>** button.

  c) The screen with information on the machine state apeears again

d) By means of the arm height control buttons, **set the arm initial position before cut** with regard to the material height - the recommended adjustment is approx. 10mm above the material.

Information about current arm height is shown at the screen:

Caution! The units in which the arm position is shown are „sensor pulses" not „milimeters"!

e) Confirm the adjusted height with the F2 button.

Adjusted arm initial position (height) before cut which has been confirmed with F2 stays kept in the machine memory for next semiautomatic cuts and the arm returns to this position after each cut until the confirmed height is not deleted from the machine memory using some act from these:

- displacement of the saw arm upward or downward with some of the buttons for manual setting of the saw arm height
- switching of the mode switch to a different mode (automat, 0)
- switching out of the machine by means of the main switch
- machine refering
- interruption of electricity supply

f) **Push the START button again**, the screen appears with information on the course of semi-automatic cut

and the semi automatic cut starts up

- **<u>If the arm initial position before HAS BEEN SET</u> before start of some from previous cuts and stays kept in the machine memory:**

  The order to adjust the saw arm position (height) above the material does not appear.

  The screen with information on the course of semi-automatic cut appears right after pressing the START button for the first time (see the step No.6)

  <u>and the semi-automatic cut starts up</u>.

9. **<u>Semi-automatic cut</u>**

   When the screen with information on the course of semi-automatic cut appears:

   a) Main vice is clamped.

   b) The arm divides the material.

   c) After the lower position of the arm is achieved (cut finished), the arm returns to the initial upper position from which the cut started.

      The saw band drive stops in the lower or upper arm position - according to the "ADJUST" menu settings.

   For safety reasons, the vice remains clamped (holding the material).

d) When the arm returns to the initial position, the semi-automatic cut sequence is completed.

The opening screen reappears.

10. **Remove the cut-off piece**

11. With the vice release button, open the main vice and manually **remove the remaining piece.**

12. **To cut another piece, repeat the entire process.**

3.4.4. Interruption of semi-automatic cut:

» • **Emergency Stop Switch**

In the case of emergency, push the **Emergency Stop Switch**.

After you push the button, all dangerous movements of the machine are stopped immediately.

For safety reasons, the vice remains clamped (holding the material).

The screen appears:

Repeated putting into operation

1. Turn the **Emergency Stop Switch** in the direction of the arrow (on the button).

2. A prompt appears to confirm the error message:

3. Confirm the error message by pushing the F4 (=OK) button.

4. When prompt appears

5. Activate the machine safety circuit with the button on the machine control panel.

6. Lift the saw arm upwards over the material and push the **START** button.

3.5. Machine control in automatic mode

Caution!

It is possible to cut angles to +45° in the automatic mode, angles bigger than +45° or equal to+45° can be cut only in the manual mode – without usint of the feeder.

For angles bigger than + 30 °, the feed of the feeder is reduced and the length of the smallest residue piece is increased.

3.5.1. Automatic cycle

In the automatic mode, the material can automatically be divided into the given number of pieces of specified lengths.

The machine software enables entry of **20 programs**; in every program, it is possible to enter one material length and the number of pieces to be cut to this length entered.

In a single automatic cycle, therefore, material can be cut to up to 20 different lengths; an arbitrary number of pieces can be chosen for every length.

The automatic cycle can be started from any program. After cutting the first selected program, the automatic cycle will gradually continue with all successive non-zero programs .A zero program (zero lengtth and zero number of pieces) ends the cycle.

The machine is able to feed material of any length. If the length fed is higher than **600 mm (maximum length of a single feed)** the machine automatically executes more feeds.

Attention!
If a material support roller is inserted behind the feeder, the maximum length fed must be adapted so that the feeder cannot collide with the roller!

Machine operation to execute the automatic cycle:

1. If the machine is not referenced, **perform its referencing** (see the chapter on the machine referencing).
2. **Set the jaws of vices according to the material width**

> ***Caution!***
> ***Even if the jaws are not adjusted properly and a material is not clamped properly the band saw starts a cut. The material and / or the machine can be damaged!***

3. **Manually (without the feeder!), insert material into the main vice.**

> ***Attention!***
> ***During the automatic cycle, the material must PERMANENTLY be supported along its entire length!***
> ***There is a risk of the unsupported material getting stuck in the feeder track and damage to the machine.***

4. **Align the material.**

   The material can be aligned by being clamped in two vices.

5. **Switch the machine to the automatic mode** – mode selector to the position  .
6. The LCD shows menu for the **cycle programming.**

Name	Description
Preselection	**Number of the currently loaded program / total number of programs** Up to 20 programs can be loaded to the system.
Length	**Cut piece length** In the currently loaded program, enter the required length of the pieces cut.
Number	**Number of pieces cut for the entered length** In the currently loaded program, enter the number of pieces of the required length**.**
	**Active line designation** Parameters in the active line can be changed. Enter numbers by means of the numerical keyboard installed on the control buttons.

By means of the F1, F2, F3, F4 buttons and the numerical keyboard, you can preset the individual programs in this screen:

Name	Description
F1, F4	**Browsing through the individual programs** **F4 – browse forward** **F1 – browse backward** NOTE: If a parameter in the browsed-up program (length, number of pieces) is equal to zero, it is impossible to browse further from this program.
F2	**F2=M+…Memory** **Data saving** By pushing F2, you can save current values of all programs in the system.
F3	**F3=End (Finish)** **End of programming and selection of a program to start the automatic cycle** Browse up the screen with the program from which the automatic cycle should start and push F3. NOTE: If a parameter (length, number of pieces) in the program selected is equal to zero, the automatic cycle cannot start from this program.

Programming procedure:

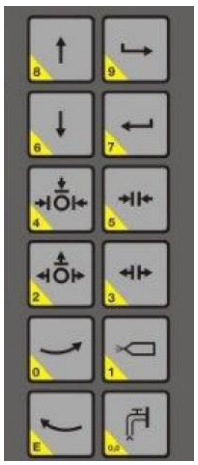
a) With the **F1** and **F4** buttons, **browse up the program** (program number) from which you want to start programming the automatic cycle.

Parameters of the browsed-up program appear on the screen with menu for the cycle programming.

b) On the screen with the selected program parameters, **enter:**

- **required length** (common for all pieces cut continually and successively according to this program)
- **required number of pieces** (the selected number of pieces will be cut continually and successively; all pieces will be of the specified length)

Enter numbers by means of the numerical keyboard installed on the control buttons.



Movement between the individual specified parameters of the displayed program is possible by means of key E 

Deletion of entered values – key C 

c) With the F1 or F4 button, switch to another program you want to view or modify and check or program its parameters.

d) If you want to save the entered parameters in the machine memory, after completing modification of the given parameters, **push the F2 button.**

A screen for confirmation of the change appears.

F1 – NO – changes will not be saved

F2 – USB –changes are saved at the connected USB

F4 – YES – changes will be saved

The changes which are not saved will be deleted from the machine memory when the machine is switched off with the main switch or if the electric power supply is interrupted.

e) Browse up the program from which the automatic cycle should start.

After the automatic cycle starts, pieces are first cut up according to this initial program selected. The cycle will continue with other immediately successive non-zero programs. **The cycle will end with a zero program.**

f) To finish programming and move to another screen, push the F3 button.

7. After you push the F3 button in the previous step, a screen **appears with options for** material **cut-in:**

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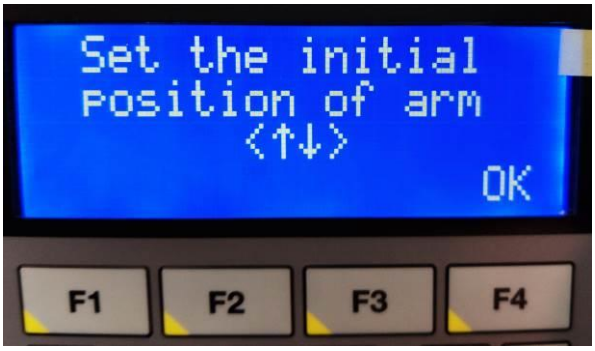
- **<u>If the operator does not want to execute cut-in of the material:</u>**

  a) **<u>Push the F4 button – option to start the cycle without material cut-in</u>**

  b) If the initial arm position over the material has not been entered, after you push the F4 button, **a prompt appears to set the initial arm position over the material.**



When the prompt is displayed folow these steps:

- By means of the arm height control buttons, **set the arm initial position before cut** with regard to the material height - the recommended adjustment is approx. 10mm above the material.
- Confirm the adjusted height with the **F4 <OK>** button.

After each cut, the arm returns to this height.

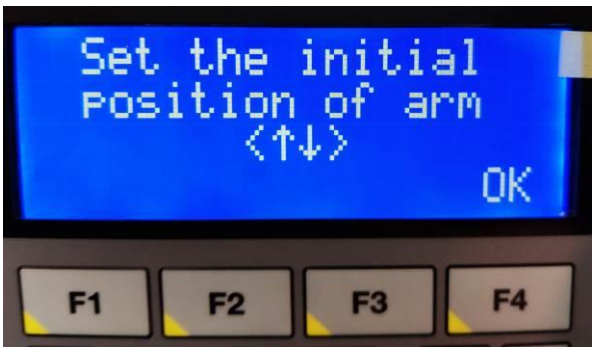
c) After you confirm the preset initial arm position, a screen reappears with the menu for the material cut-in.

d) Pushing the **F4** button will **start up the automatic cycle** from the first selected program.

- **<u>If the operator wants to execute cut-in of the material:</u>**

  a) **<u>Push the F4 button – option to start the cycle without material cut-in</u>**

  b) If the initial arm position over the material has not been set, after you push the F4 button, **a prompt appears to set the initial arm position over the material.**



When the prompt is displayed folow these steps:

- By means of the arm height control buttons, **set the arm initial position before cut** with regard to the material height - the recommended adjustment is approx. 10mm above the material.
- Confirm the adjusted height with the **F4 <OK>** button.

After each cut, the arm returns to this height.

c) After you confirm the preset initial arm position, a screen reappears with the menu for the material cut-in

d) Pushing the **START** button **starts up cut-in** at the manually set length.

The screen shows information on the course of cut-in.

e) The operator is informed of the **cut-in finish** on the screen:

f) After the **F4 <OK>** button is pushed on the screen with cut-in finish information, the **screen appears for starting the automatic cycle**.

F1 - return to previous screen

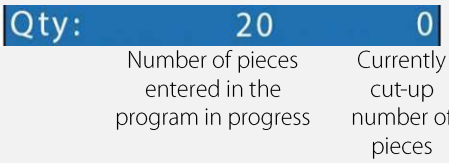
g) Pushing thea **START** button **starts up the automatic cycle**

8. After the **automatic cycle is started**, a screen appears with the course of the automatic cycle.

Name	Description
AUTOMAT	**Information on the current machine mode**
Prog:	**Number of the program in progress**
Length	**Cut piece length** Lgt: 520.0 0 Length entered in the program in progress Currently cut length

Qty.

Number of cut pieces of the specified length



Number of pieces entered in the program in progress

Currently cut-up number of pieces

After end of every cut and complete end of the automatic cycle

- the arm moves up to the initial position from which the automatic cycle started
- the saw band drive stops at the lower or upper arm position – according to the option in the "ADJUST" menu

- for safety reasons, the main vice remains clamped (holding the material)

After cutting off the material, always:

- **remove the last cut-off piece from the machine manually**
- **open the main vice** with the button for releasing the main vice (in the manual mode) and remove the remaining piece manually.

(For details, see Automatic cycle interruption – material depleted)

9. **End of the automatic cycle** is announced on the screen:

10. Pushing the F1 button on the screen announcing end of the automatic cycle enables **return to the screen for programming the automatic cycle.**

On this screen, you can either modify programs to start another automatic cycle or you can initiate another automatic cycle with the same entry.

3.5.2. Interruption of automatic cut

»

- **STOP button**

The automatic cycle can be interrupted with the **STOP** button any time.

depending on the cutting program sequence in progress:

1. if the arm is already declining to cut, the cycle is only interrupted after the cut is completed
2. if the cycle is interrupted in the material cut-in sequence, the cut is interrupted immediately and the arm returns to the initial position
3. in all the other sequences, the cycle is interrupted immediately and the machine is waiting for further instructions according to the pertinent LCD.

By pushing the START button, you can restart the cycle

- **Material depleted**

If the end of the material divided has been detected or the machine has evaluated the state of insufficient material for further feeding, the automatic cycle is interrupted; the state is indicated on LCD

Information on the end of material or insufficient material can be detected by the limit switch or laser located in the rear part of the feeder. Functions of these two sensors are interconnected depending on the machine ability to recalculate the amount of lengths fed for the material end detection with regard to the specified length of the piece cut.

In this case, new material must be loaded and then the entered program continued.

New material loading - see description of the automatic cycle and related chapters.

After loading of new material and switch to the automatic mode, LCD is shown with the options to continue with the interrupted cycle or option for a change in the settings.

The "New entry" option enables return to the screen for programming the automatuic cycle, from which parameters of the individual programs can be changed or the initial program for the cycle following the interruption changed.

- **Emergency Stop Switch**

In the case of emergency, push the **Emergency Stop Switch**.

After you push the button, all dangerous movements of the machine are stopped immediately.

For safety reasons, the vice remains clamped (holding the material).

The screen appears:

Repeated putting into operation

1. Turn the Emergency Stop Switch in the direction of the arrow (on the button).
2. A prompt appears to confirm the error message:

3. Confirm the error message by pushing the F4 (=OK) button.

4. When prompt appears

5. Activate the machine safety circuit with the button on the machine control panel.

6. Lift the saw arm upwards over the material and push the **START** button**.**

3.5.3. Loading material before starting the automatic cycle

For correct course of the automatic cycle, it is important in which way the material is loaded before its actual start.

For safe and correct feed of the material in the automatic cycle, the following requirements must be satisfied:

1. Before start of the cycle, the material must be **loaded manually – that is, without the feeder) - to the main vice** – that is, under the saw band or to the cut-in length.

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

The collision risk results from the following factors:

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

2. It is necessary that the material is **supported along its entire length**

<u>Short material</u>

If short material is loaded (the length of which is equal to or shorter than approx. the feeder track length), there is a risk of its overbalance and jamming in the gaps between the rollway rollers; therefore, it must be supported with an **additional support roller** on the rollway, which is included in the standard machine accessories.

> ***Attention!***
> ***If the support roller is used, it is necessary to change the feed length in the service settings to prevent collision between the feeder and roller!***

Procedure of setting the support roller and feeding length in the service menu

a) Locate the additional roller on the feeder track so that it supports the material properly along its entire length.

b) By means of manually controlled buttons, move the feeder to the support roller so that they do not touch and there is no risk of collision between the feeder and support roller (we recommend that a sufficient gap be left).

c) Measure the distance between the vice wall on which the feeder leans in the zero position and the feeder wall next to the support roller.

d) Enter the measured distance as the feed length parameter on the service menu screen.

<u>Long material</u>

If sufficiently long material is loaded (longer than the feeder track length), the support roller MUST NOT BE USED!

By default, the feeder track length for sufficiently long material is set to 603 mm in the service menu.

3. **In the automatic cycle, it is possible to cut material with the minimum section height of 5mm.**

   If a material with lower height than 5mm is inserted in the automatic cycle, it will not be detected by the feeder laser.

4. **If the upper clamping (of the bundler) is installed, bundles with a section width smaller than the width of the bundler jaws must not be clamped by means of the bundlers.**

Attention!

If a material is inserted with a width smaller than the width of the bundler jaws, the bundler jaw will be clamped in the vice instead of the material.

Imminent risk of collisions – in the automatic cycle in particular!

If a material is clamped with a width smaller than the upper clamping jaws width, and the upper clamping is active in particular, then:

Because the upper fixture jaw clamps together with the feeder vice**, the upper fixture jaw is clamped between the feeder vice jaws, the machine continues with the automatic cycle as if there was material clamped in the feeder!**

After automatic clamping of the upper fixture jaws, the main vice jaws are released! Material which will not be supported by the feeder may fall out of the main vice jaws and cause damage to the machine!

During automatic travel of the feeder to the feed length during the contínuing automatic cycle, the feeder may collide with the material!

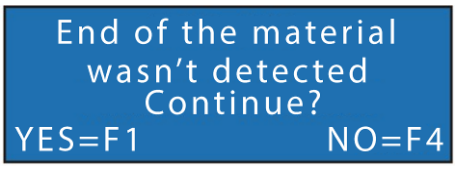
5. To evaluate the optimum rest after cutting of material, it is necessary to load the material:

   - either to be detected by the feeder laser immediately upon loading
   - or to be detected by the feeder laser during the first feeder positioning to the given length after starting the automatic cycle

   If the material is not detected by the feeder laser either during loading or the first feeding, it is necessary for safe course of the automatic cycle to evaluate parameters of the started cycle with regard to operating conditions of the machine - there is a risk of collisions!

> ***Attention!***
> *If the material is loaded in the machine in a way that it cannot be detected by the feeder laser either after loading of the material or after the first feeder positioning, and the operator wants to perform the automatic cycle even under these circumstances, the operator must carefully consider the material loading length with regard to the required cutting length according to the program and evaluate whether there is no risk of bad grasping of the material by the feeder in some step with subsequent risk of collisions!!*

By confirming the "Yes" option on the screen with indication of the state "Material end not detected".



the operator confirms that s/he has considered the risk of a possible collision!

For details, see "Course of material feeding in the automatic cycle"

3.5.4. Course of material loading in the automatic cycle – risk of collisions

EXPLANATION:

After the automatic cycle is started (**F4** without cut-in, **START** after cut-iní), the **feeder first positions to the specified length (first positioning)** – that is, the feeder runs **to the position for loading the specified length of the first cut piece.**

According to the combination of the loaded material length and feeding length, the following cases may occur:

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- <u>Case No. 1</u>

  Material is inserted in both vices so that:

  - **After loading of the** material, the feeder laser **detects the material.**
  - **During the first positioning** to the specified length, the feeder laser still **detects the material.**

Material feeding after starting the automatic cycle proceeds as follows:

1. **The feeder clamps the material in the prepared position for feeding the given length of the first cut piece** and feeds the first length.
2. Then the feeder executes the required number of feeds to cut up the given piece.
3. As soon as the laser detects the end of the material, the machine evaluates the remaining material length to finish cutting of the given material piece with the minimum possible material rest so that the material still remains supported by the feeder after cutting.
4. When the piece is cut down to the minimum possible rest of material, according to the given situation, the automatic cycle is either finished or interrupted.

   The display information indicates the automatic cycle state (finished/interrupted).

   After finishing or during interruption of the automatic cycle, the rest of material remains supported by the feeder; it cannot fall down when the main vice jaws are released - no risk of collisions.

- <u>Case No. 2</u>

  Material is loaded into both vices so that:

  - **After loading** of the material, the feeder laser **detects the material**
  - **During the first positioning** to the specified length, the laser **detects the material.**

  Material feeding after starting the automatic cycle proceeds as follows:

1. As soon as the laser detects the end of the material, the machine evaluates the remaining material length to finish cutting of the given material piece with the minimum possible rest of material so that the material still remains supported by the feeder after cutting.
2. **The feeder clamps the material in the prepared position for feeding the given length of the first cut piece** and feeds the first length.
3. Then the feeder executes the required number of feeds to cut up the given piece.
4. When the piece has been cut up to the minimum possible rest of material, according to the specific situation, the automatic cycle is either finished or interrupted.

   The display information indicates the automatic cycle state (finished/interrupted)

   After finishing or during interruption of the automatic cycle, the rest of material remains supported by the feeder; it cannot fall down when the main vice jaws are released - no risk of collisions.

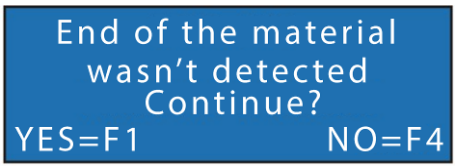
- Case No. 3

Material is inserted in both vices so that:

- **After the material is loaded**, the feeder laser **does not detect the material.**
- **During the first positioning,** the feeder laser **will detect the material.**

In this state of the machine, cut-in can be executed - see the procedure described in the automatic cycle.

After the automatic cycle starts (**F4, START**), state indication appears on LCD:



The **F4 - NO** option - return to the option for program entry

The **F1 - YES** option- **screen appears for starting the automatic cycle**

..and after you push **START, the automatic cycle starts up**

Attention!
By confirming the "Yes" option on the screen indicating the state "Material end not detected", the operator confirms that s/he has considered the possible risk of collision!!

If the feeder laser detects the material during the first feed, after the automatic cycle is started, the material feeding proceeds in the same way as in the case No. 1 - there is no risk of collisions.

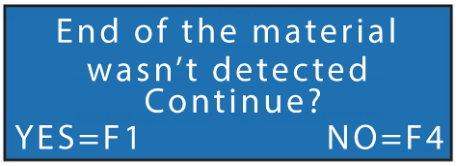
- <u>Case No. 4</u>

  Material is inserted in both vices so that:

  - **After the material is loaded**, the feeder laser **does NOT detect the material.**
  - **During the first positioning,** the feeder laser **will NOT detect the material.**

  In this state of the machine, cut-in can be executed - see the procedure described in the automatic cycle.

  After the automatic cycle starts (**F4, START**), state indication appears on LCD:



The **F4 - NO** option - return to the option for program entry

The **F1 - YES** option- screen appears for starting the automatic cycle

… and after you push **START, the automatic cycle starts up**

Attention!

By confirming the "Yes" option on the screen indicating the state "Material end not detected", the operator confirms that s/he has considered the possible risk of collision!

Attention!

If the feeder laser did not detect material either after loading or during the first feeder positioning, there is a risk of the machine being damaged by falling material when the main vice jaws are released!

With a machine equipped with upper clamping, there is also a risk of the feeder collision with material at the automatic feeder travel to the length feed!

If the feeder laser does not detect material either after loading or during the first positioning, one of the two situations may occur during material feeding after the automatic cycle start:

a) The feeder moves away from the loaded material when it is first positioned, clamping without the material and feeding the firs requested length are next operations..

b) during the first positioning, the feeder runs to the material in a way that the **material end gets between the feeder jaws, but it is not detected by the laser.**

The feeder clamps the material and the first feed to the required length will be started. Then (according to the specified cut-off lengths) the material can be grasped even several times again and further lengths loaded; however, because the material end is located before the feeder laser, the machine still cannot detect **the material end.**

If under the described situation the material is cut up so that during one of the following positionings **the feeder runs outside the material,** clamping without material and feeding of the next requested lenght follow**.**

In both cases, a) as well as b), the empty clamped feeder moves toward the main vice while the given length is fed. If some undetected material is located between the vice and feeder and if the vice jaws are clamped so that there is not a sufficient gap between them, the feeder will collide with the material.

If the material remains clamped in the main vice after cutting, the main vice jaws are released after a delay time from the machine stop!

The material which is not supported by the feeder may fall out of the main vice jaws and cause damage to the machine!

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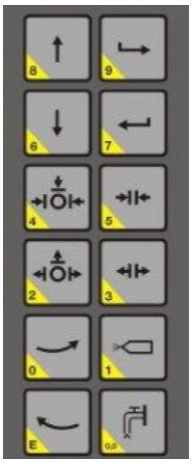
3.6. Machine setup

Setup mode is activated by switching mode selection switch to position 0. After the switch is in position 0 on LCD is displayed:

Parameters in the menu SERVICE are password protected. The parameters in the SETUP menu are common and are not password protected.

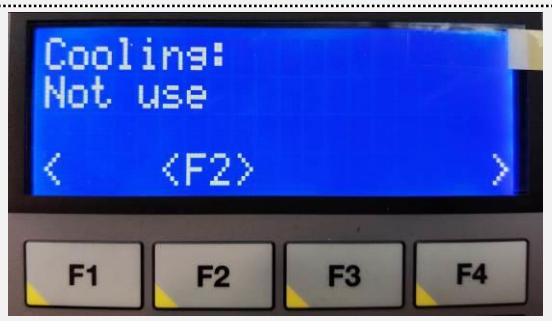
Password:	**947**

Numeric values can be entered by means of the numerical keyboard installed on the control buttons.



Deletion of entered values - key C 

3.6.1. SETUP

on LCD	Description
	**Switch off motor** after cut: Up. position – saw blade lifts after cut and saw blade drive is turned off above material. Down position – saw blade drive is turned off immediately after cut. • **F1** back • **F4** next option • **F2 – browsing through the options**
	**Cooling:** Do not use – cooling is off, suitable for cutting special materials such as cast iron With saw band drive – when the drive of the saw band is running, the cooling pump is running too. • **F1** back • **F4** next option • **F2 – browsing through the options**
	**Swarf conveyer** • **F1** back • **F4** next option • **F2 – browsing through the options**
	**Switch of time for hydraulic unit**: x min. - after x minutes of inactivity, hydr. unit is switched off • **F1** back • **F4** next option • **F2 – confirmation of the entered value**
	**Piece cut of correct** The settings for the proper cut lengths in automatic mode • **F1** back • **F4** next option • **F2 – browsing through the options**

on LCD	Description
	**Language:** Choose control menu language After setting a new language in this screen, you must switch the machine off and on to change the language of the screens. • **F1** back • **F4** next option • **F2 – browsing through the options**
	**Display length:** mm or inches **restart machine to apply change** • **F1** back • **F4** next option • **F2 – browsing through the options**

3.6.2. SERVICE (password)

Home screen of the SERVICE menu

By means of the numeric keyboard on the control buttons, enter the password to open the menu.

Heslo:	**947**

on LCD	Description
	**Feed length:** Specifies the length of the feeder. Do not change parameter – is set from the factory. • **F1** back • **F4** next option • **F2** save current option
	**ELGO:** Feeder position admeasurement. **Do not change!** For service purposes. Displays a variable number of linear pulse measurements • **F1** back • **F4** next option • **F2** save current option
	**Deviation of laser** The laser is placed behind the feeder vise jaws The entered value has direct influence on the material lenght clamped in the feeder vice and direct influence on safety of the machine operation. If the clamped lenght is too short there is a risk of releasing of the material from the feeder vice and there is danger of injury ort he machine damage! **Do not change the value set by manufacturer without considering of all risks!** The value has influence on the smallest residual piece for using of the feeder. • **F1** back • **F4** next option • **F2** save current option
	**Opening time for main vice** Opening time is in milliseconds. • **F1** back • **F4** next option • **F2** save current option
	**Opening time for feeding vice** Time for opening of the feeder vice in milliseconds. • **F1** back • **F4** next option • **F2** save current option

on LCD	Description
	**Multiple feeding correction** Correction of length deviations during loading by the feeder. • **F1** back • **F4** next option • **F2** save current option • **F3** sign change
	**Machine name** • **F1** back • **F4** next option • **F2 browsing through the options**

If you choose to change the keyboard units from "inch" to "mm", there is no automatic conversion of constants in machine setup „Servis“ and „Setup“.

It is necessary to calculate by the formula: 1 inch=25,4 mm a 3,28 ft/min=1m/min.

It is necessary to calculate these values:

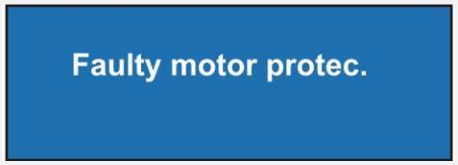
Machine setup „Setup“:

- Piece cut of correction (when calculating the unit "inch“ rounded to 1 decimal place = 0.0 inch)

Machine setup „Servis“:

- Feeder length (when calculating the unit "inch“ it has to be rounded to 1 decimal place = 0.0 inch)
- Divergence of laser (when calculating the unit "inch“ it has to be rounded to 3 decimal places = 0.000 inch)
- Feeding correction (when calculating the unit "inch“ it has to be rounded to 3 decimal places = 0.000 inch)

3.7. Error messages

Error	Description
	The safety circuit is not turned on (pos. 2 on control panel). Push safety circuit button (on pos. no. 2 on control panel) to remove error message.
	**Emergency Stop Switch** is active – pushed. Turn button by the arrows, and disable it. Press **F4** to confirm the disorder.
	Saw belt not is properly tensioned. Remove the fault and press F4 to confirm.
	Motor overload, thermal protection is activated. Do not overload blade engine! Remove the fault and press F4 to confirm.

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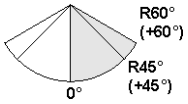
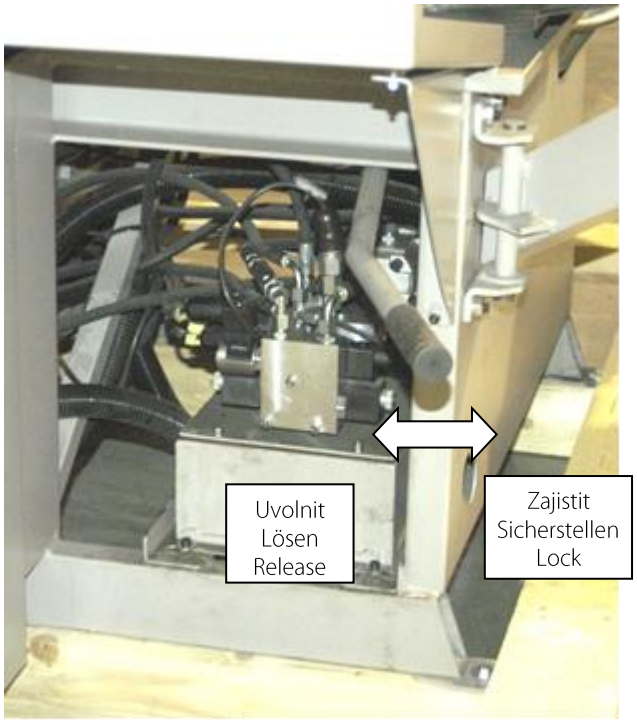
3.8. Band saw adjusting

3.8.1. Adjusting the cutting angle



The cut angle can be varied from **0°** to **60°**.

1. Lift the saw frame and release-securing lever of the console.



2. Set the desired angle of the cut according to the scale on the turning console.
3. Tighten the securing lever of the console.

Caution!

It is possible to cut angles to +45° in the automatic mode, angles bigger than +45° or equal to+45° can be cut only in the manual mode – without usint of the feeder.

For angles bigger than + 30 °, the feed of the feeder is reduced and the length of the smallest residue piece is increased.

3.8.2. Cutting speed setting

If the machine is equipped with a two-speed switch, set the required cutting length by turning the switch on the control panel.

Position **1** – **40** m/min

Position **2** – **80** m/min.

If the machine is equipped with a frequency converter, its controller for setting the band speed is located on the control panel. The band speed can be set within the interval of 40 to 80 $m.min^{-1}$.

3.8.3. Speed adjusting of the arm lowering

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

Note:

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

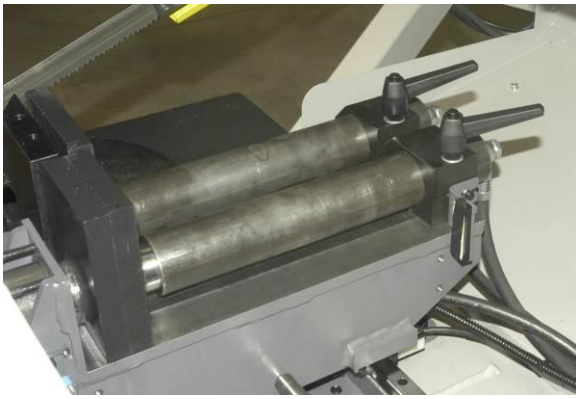
3.8.4. Optimal adjusting of the guide cubes span

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

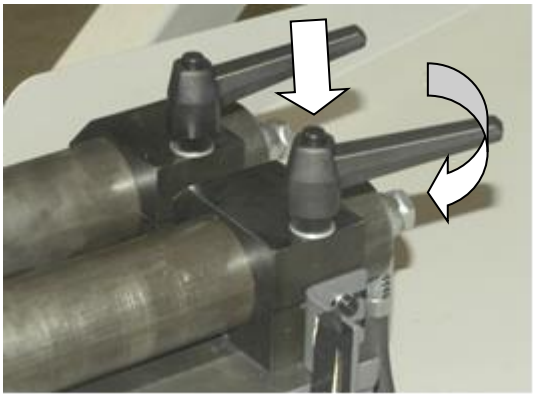
1. Release the lever of the left listel and move left part of the guide apparatus so that the left guide cube edge is as close to the cut material as possible.
2. Lower the frame to the lower position and check the position of the guide cube towards vice loading area. The guide cube must be a distance of at least 10 mm from the vice loading area.
3. Tighten the lever of the gib and check the guide cube setting once more for possible collision with binding table or vice jaw.

3.8.5. Vice jaws setting

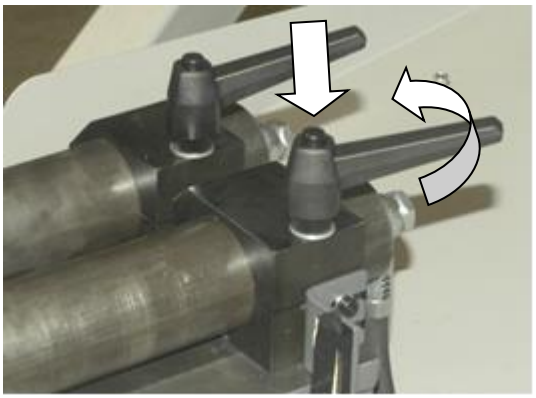
To clamp the cut material correctly, it is necessary to set the sliding jaws of the main vice and the feeder vice near to the material with regard to the stroke of the clamping cylinders.



1. Push the locking pin of the detent lever and turn the detent lever to release shift of the jaws



2. Shift the jaw to the position necessary for firm clamping of the vice
3. Lock the shift of the jaws by turning the detent lever

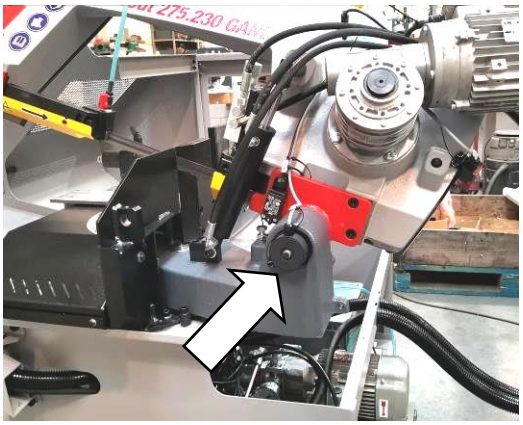


4. Insert material and try to clamp it to verify whether it is clamped firmly.

Caution!
Even if the jaws are not adjusted properly and a material is not clamped properly the band saw starts a cut. The material and / or the machine can be damaged!

3.8.6. Setting the height of the saw arm over the material

The setting of the saw arm upper position is accomplished by an incremental sensor (see arrow).



Setting procedure:

1. Insert a material into the vice
2. Press the button **Arm up**  and lift the saw arm to the uppermost position.
3. Carefully lower the saw arm to the material using the button **Arm down**  (or  + **F1** for **rapid move**). Stop about 5-10 mm above the material.
4. In the case the upper arm position is set by the incremental sensor, an onscreen message saying that the upper arm position is adjusted will be displayed.
5. Press **START** to begin the cutting process.
6. Saw band cuts material and the arm moves to the lower position. After reaching the lower position the arm returns automatically to the upper position, where it was before the cutting cycle was started with the START button.

The sensor is adjusted by the manufacturer and needs not to be readjusted.

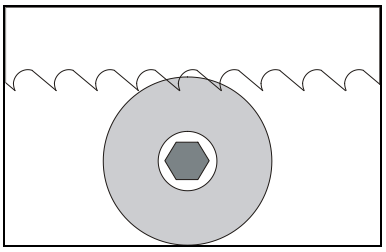
3.8.7. Brush adjustment

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 saw arm cover.
2. Loosen the bolt see arrow.

3. Adjust the position of brush to the saw band

   The brush must touch with teeth of the saw band.



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

4. Close the saw arm cover.

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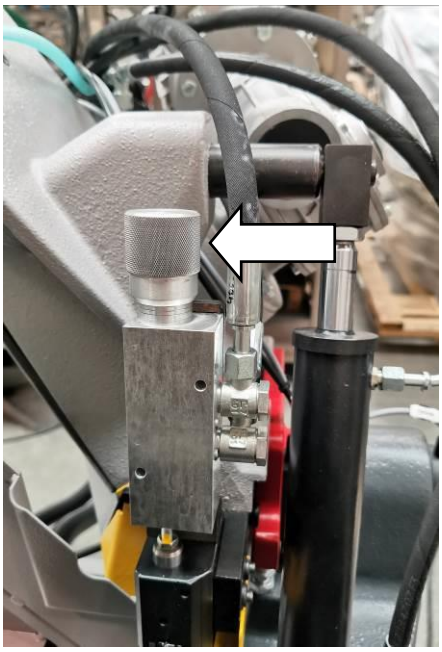
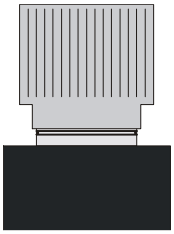
3.8.8. Cutting pressure regulation

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

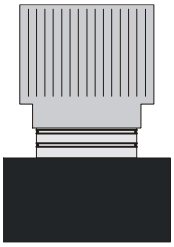
Pressure regulation is performed with regulation wheel on the guiding cube. Screw on the wheel – downfeed pressure is bigger. Screw off the wheel – downfeed pressure is smaller.





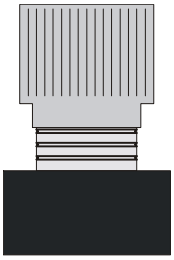
One visible neck

Solid material over Ø200 mm..



Two visible necks

Solid material from Ø100 to Ø200 mm.

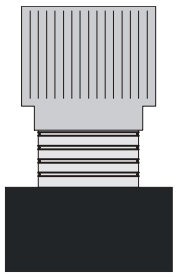


Three visible necks

Pipes and shapes material with surface from 10 - 15 mm.

I - shaped material from 200 - 500 mm.

Solid material to Ø100 mm.



Four visible necks

Pipes and shapes material with surface to 10 mm.

I - shaped material to 200 mm.

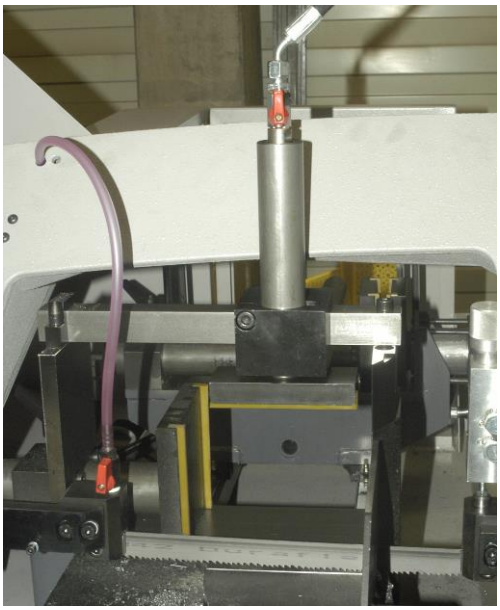
3.8.9. Bundling system setting (optional accessory)

To hold the cut material during cutting better, we recommend using of **the bundling system – optional accessory.**

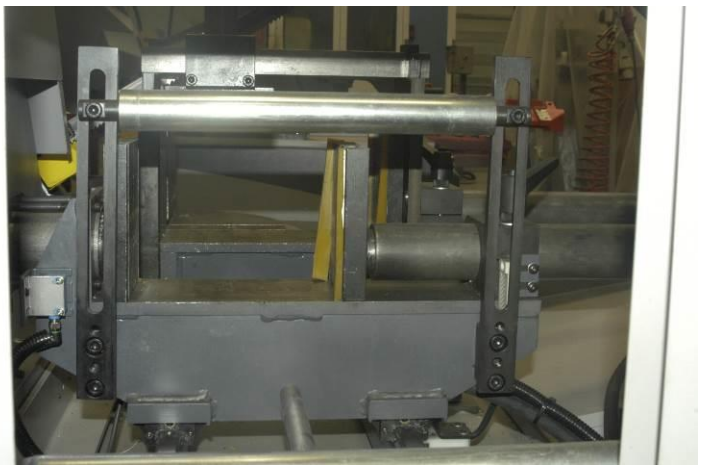
The bundling system is particularly suitable for clamping bundles of material or material of irregular cross-sections.

The bundling system consists of:

- Bundlers on the main vice



- Bundlers on the feeder vice



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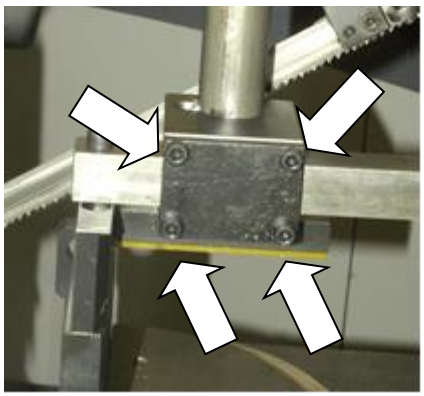
- **Setting the main vice bundler**

a) Horizontal position setting

1. Release the bundler jaw carriage by loosening the detent screws

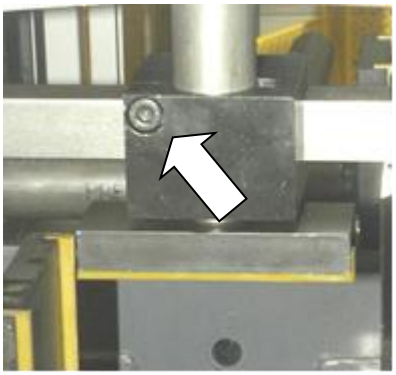


2. Shift the jaw over the required clamping place
3. Lock the bundler against sliding by tightening the locking screws

b) Vertical position setting

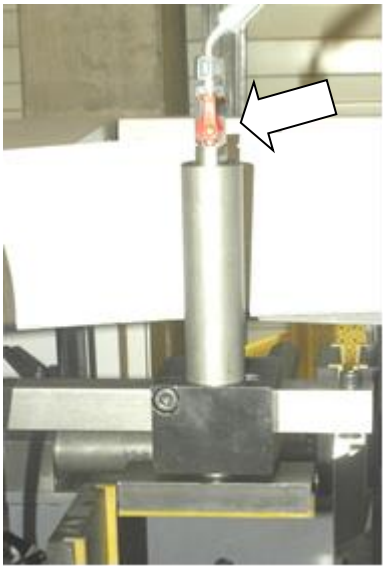
The bundler jaw height must be set with regard to the material height and the bundler clamping cylinder stroke.

1. Release the bundler clamping cylinder by loosening the detent screw



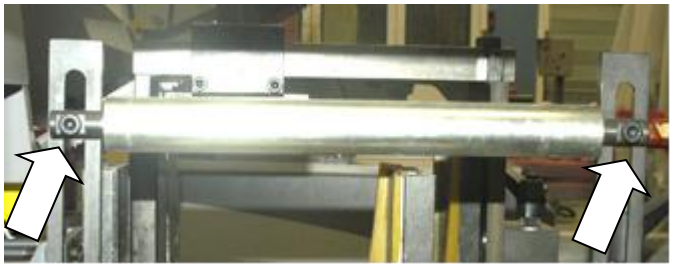
2. Shift the jaw to the correct height according to the material dimensions so that the clamping cylinder stroke be sufficient to clamp the material..
3. Lock the bundler clamping cylinder against sliding by tightening the locking screw.

The bundler jaw on the main vice can be put out of operation by tightening the cock on the clamping cylinder inlet.



- **Setting of the feeder vice bundler**

1. Release the screws locking the retaining cylinder.



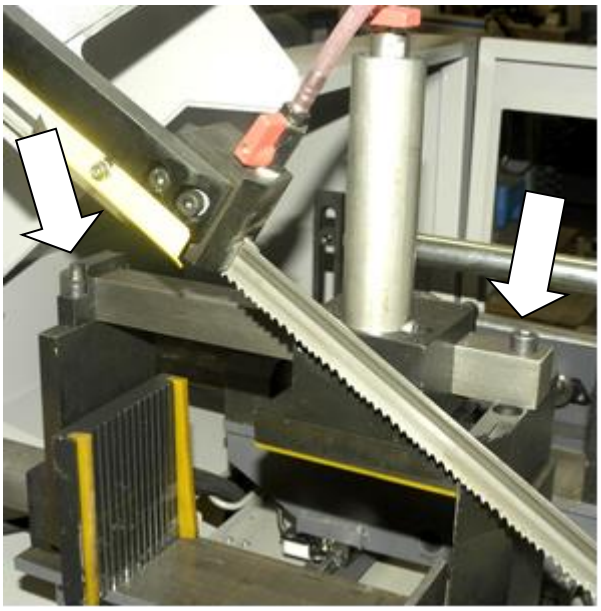
2. Shift the retaining cylinder to the correct height according to the material dimensions so that the clamped material is secured against tilting on the top..

Caution!

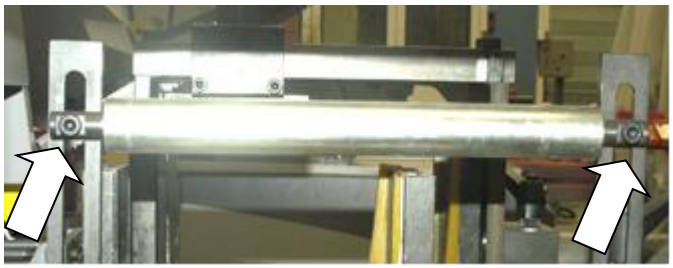
The bundling jaw reduces the range of cutting heights.

If you want to cut full height, the bundling device must be dismantled.

To dismantle the main vice bundler, loosen the crossbar clamping screws.



To dismantle the feeder vice bundler, remove the screws locking the retaining cylinder.



Caution!
If the top clamping devices (bundlers) are installed and used, it is forbidden to clamp pieces or bundles which have less width than the upper clampig jaws.
There is a risk of colisions – especially in the automatic mode!

3.9. Material insertion

3.9.1. Safety notes

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!

3.9.2. Handling agent selection

Use the strong handling agents to lift and transfer the material

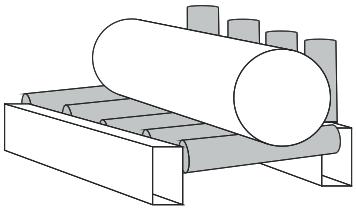
Handle with the material only with the lift truck or use the suspension strands and the crane!

Do not use the lift truck or crane in case that you do not have the licence to handle with it!

3.9.3. Material insertion

Insert material to the vice and ensure that the material cannot move in the vice or fall from the vice after the damping.

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. The roller conveyors are described in the chapter „**Roller conveyors and accessories**".



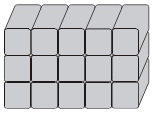
Make sure the conveyor is long enough and the material cannot tip off the conveyor.

For round material, make sure that it was leaning against at least two vertical rollers of a roller conveyor could not fall!

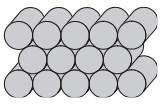
3.9.4. Bundle material cutting

Attention:
Manualbundle clamping device is not standard equipment.
Without this device is a not possible cut bundle.
If a clamper is installed on the machine, the maximum thickness of the materials in half.

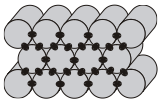
If you want to cut the material in the bundle, there are suggestions for the positioning of bundles



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.



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

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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.

In order to keep the cut material better in a vice, we recommend using **hydraulic bundles material** that does not belong to the standard equipment of the machine, but is an optional accessory. It is particularly suitable when cutting uneven material.

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4. Údržba stroje / Wartung / Machine service

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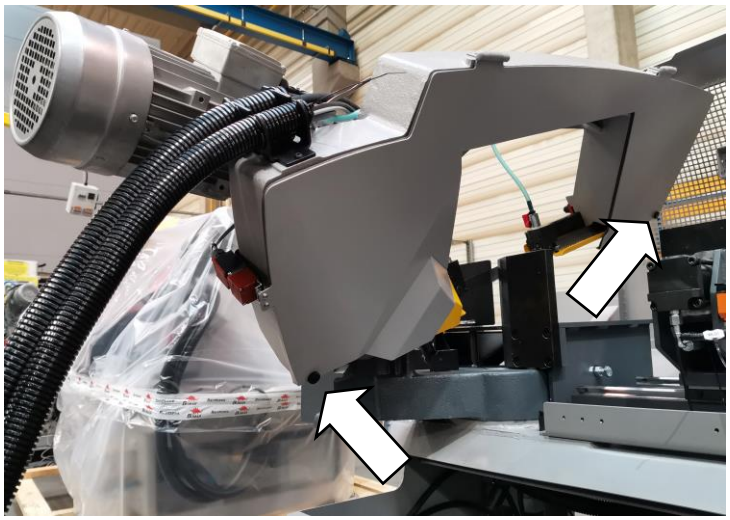
4.1. Saw band dismantling

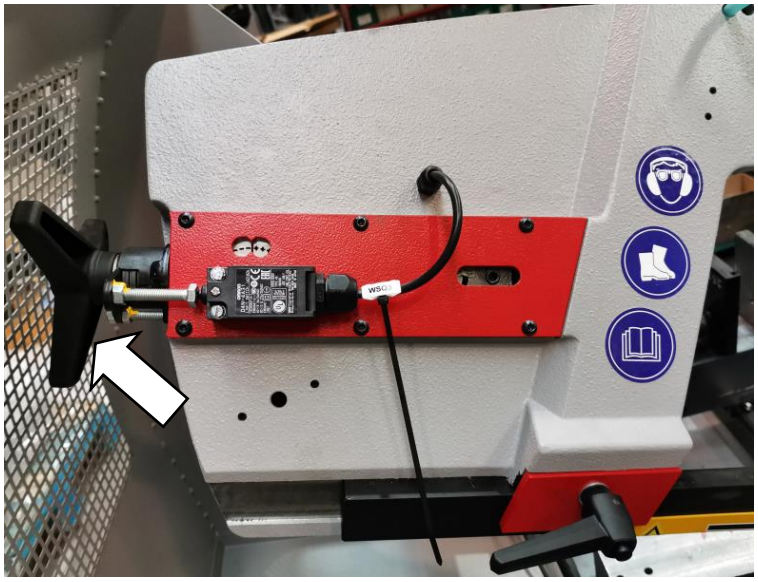
1. Turn the saw arm to the angle 0°.
2. Lift the arm to its uppermost position using the button for lifting of the arm on the control panel. Stop the saw arm In the upper position using the governing valve.
3. Switch off the machine.
4. Remove the safety covers of the band. The covers are tightened with screws.

5. Open the back cover of the arm. It is mounted with two plastic head screws.



6. Loosen the holder of the brush and turn the brush away from the band so it does not hinder the dismantling of the band.

7. By turning the tightening star to the left loosen the stretching of the band.



8. Pull the saw band from the wheels.
9. After that pull out the band carefully from the guiding cubes.

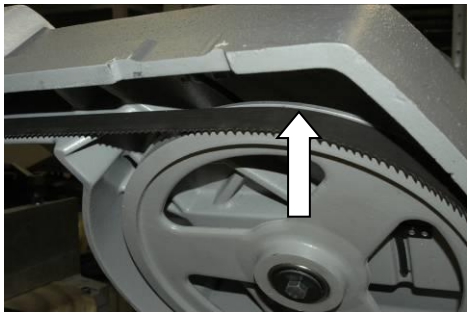
4.2. Saw band installation

1. Prior to installation, clean the track wheels, guiding cubes and inner side of the arm thoroughly of all traces of chips and dirt.

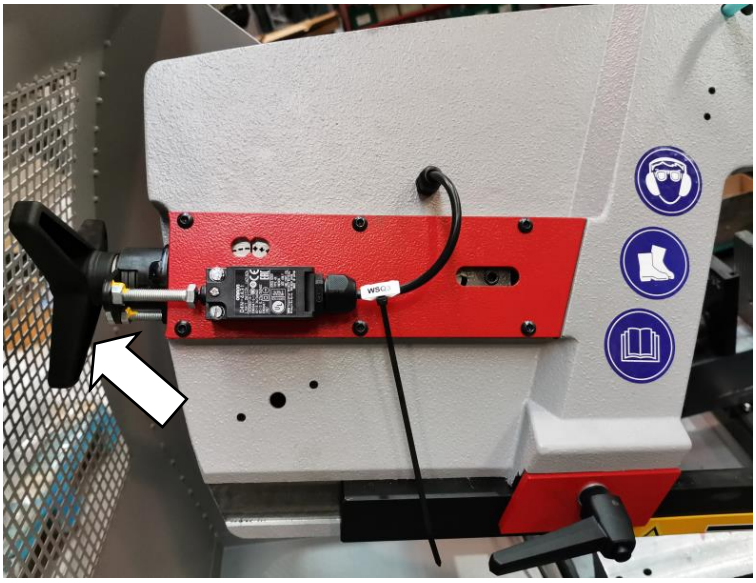
   Keep in mind the teeth direction when installing the saw band.

2. Turn the saw arm to the angle 0°.
3. Lift the arm to its uppermost position using the button for lifting of the arm on the control panel. Stop the saw arm In the upper position using the governing valve.
4. Switch off the machine.
5. Insert a new saw band in the guide cubes. Make sure the saw band runs between both guiding rollers and that it is pushed all the way to the top.

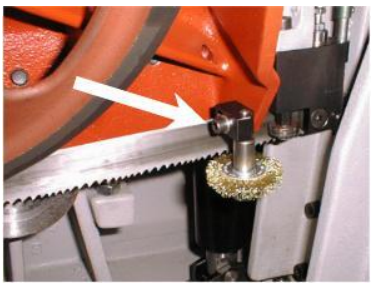
6. Put the saw band on both guiding wheels. Make sure that the saw band ridge fits tightly to the wheel rim. Push the saw band as close to the rim as possible.



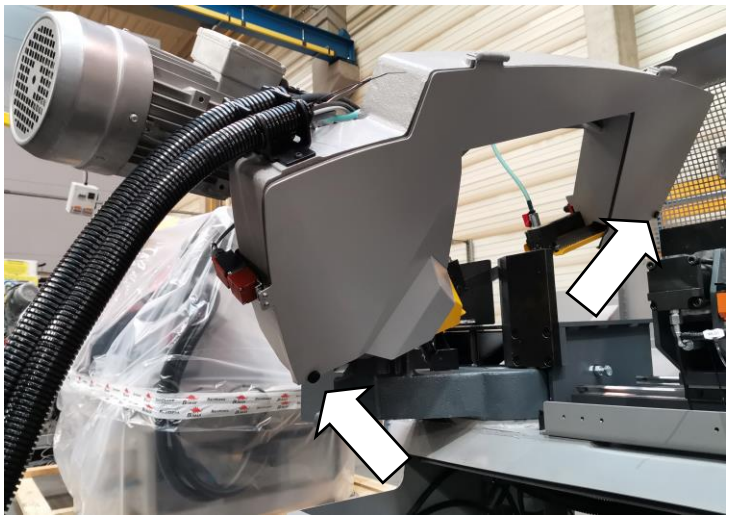
7. Turn the tightening star to the right until you gently stretch the band. Now you can remove the plastic cover on the saw band.



8. Adjust the brush to the saw band.



9. Close the back cover and secure it with two plastic head screws.



10. Mount the yellow safety covers of the band.

Arrow on the cover must agree with the direction of the teeth. If it does not, you have to flip the saw band.

4.3. Saw band stretching and inspection

Correct saw band stretching is one of the most important factors, which influences accuracy and saw band lifespan. Stretch the saw bands according to the band saw and the selected saw band type. Keep to the recommendation of your manufacturer.

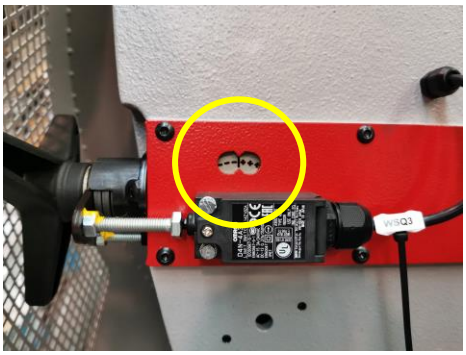
Pilový pás Sägeband Saw band	Napětí pilového pásu Sägebandspannung Blade tension	Napětí pilového pásu PSI (pro Tenzomat) Sägebandspannung PSI (für Tenzomat) Blade tension PSI (for Tenzomat)
20 x 0,9 mm	160 $N.mm^{-2}$	23 500
27 x 0,9 mm	180 $N.mm^{-2}$	26 500
34 x 1,1 mm	210 $N.mm^{-2}$	30 500
41 x 1,3 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

4.3.1. Saw band stretching

1. After installation of the saw band stretch it gently, so it does not fall of the wheels.

2. Mount the Tenzomat on the saw band and secure it with screws.
3. Stretch the saw band until it is stretched to the recommended value.

For a quick control of the tension of the band there is an indicator near the tightening star. If the indicator agrees with the picture bellow, the band is stretched correctly.



4.4. Setting of the saw band run at the tensioning wheel

Regularly check the saw band run at the tensioning wheel. Especially when the saw band was replaced, it is important to set the run properly.

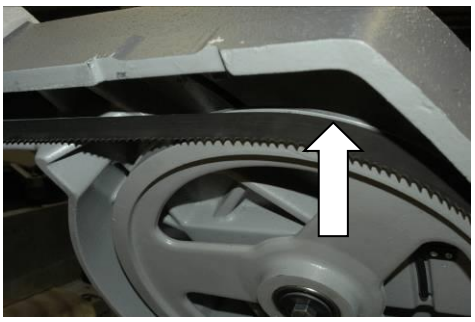
4.4.1. Saw band inspection

If the band does not run correctly, following problems can appear:

- **The band falls down from the wheels** – the band or the protective cover of the band can be damaged.
- **The band runs on the rim of the stretching wheel –** the band or the rim of the wheel can be damaged.

Inspection procedure:

1. Switch on briefly the saw band drive and then switch it off
2. Disconnect the saw from the electrical network.
3. Open cover of the wheels
4. Check the position of the saw band on the both wheels.



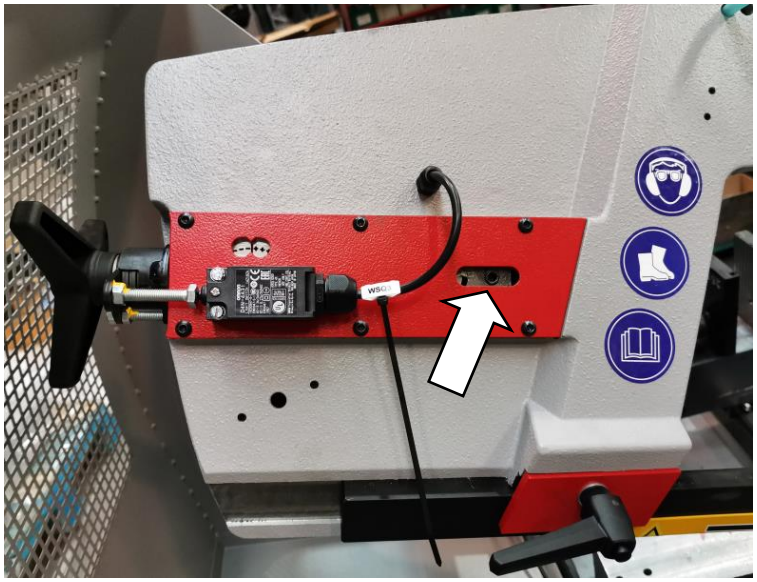
- If the distance between backside of the saw band and the wheel rim is **1 mm**, the setting is right.
- If the distance is bigger than **1 mm**, or the saw band runs on the rim of the wheel, adjust the saw band.

5. Close cover of the saw band.

4.5. Adjustment

4.5.1. Saw band run adjustment

The saw band run is set with screw in the stretching cube on the saw frame. Optimal distance has been determined at **1mm.**

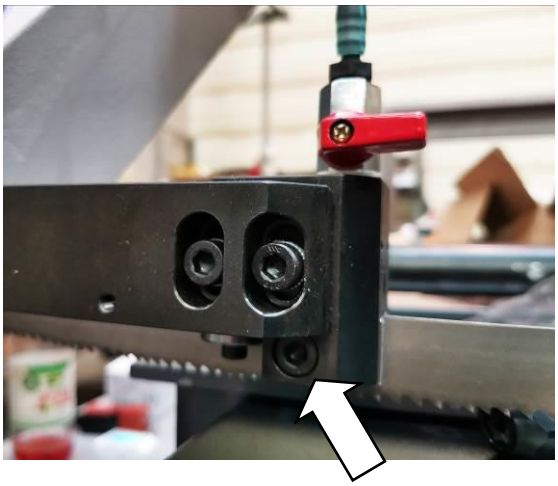


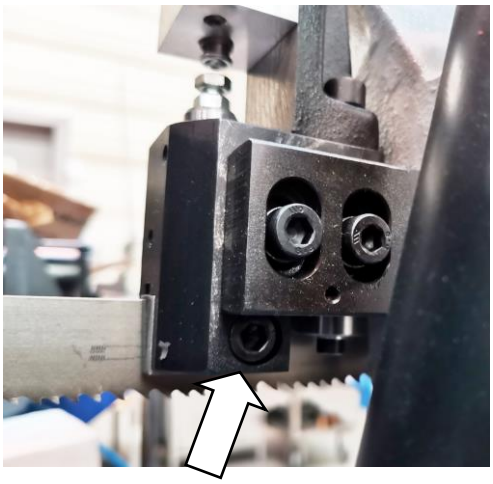
- Turn the screw to the right, the saw band closes to the stretching wheel rim
- Turn by screw to the left, the saw band departs from the stretching wheel rim

After setting check the saw band run again.

4.5.2. Hard metal guides adjustment on the machine

Hard metal guides adjustment is one of the most important criterions which influence cutting accuracy and saw band lifespan. Therefore it is essential to check that the adjustment of the hard metal guides is correct



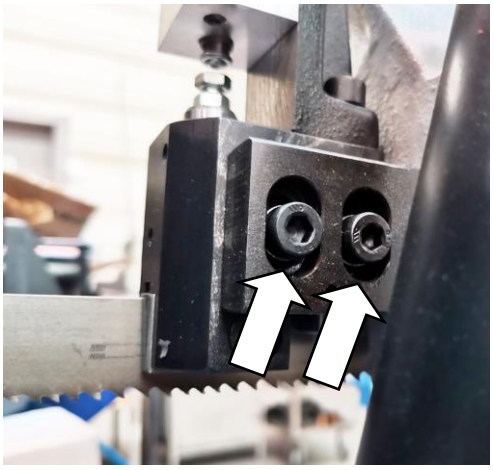


1. Tighten the screw on the side of guide cube so that the band is loosened
2. Loosen the screw slowly and let the hard metal plate touch the band. You must be able to turn the screw by hand. Set the hard metal guiding on the right cube in the same way.
3. Make sure that the hard metal guides do not put up to much resistance otherwise the lifetime of the saw band and drive decreases.

4.5.3. Guiding cube adjustment

Cutting quality and saw band life is also dependent on guide cubes adjustment

Therefore this adjustment has to be checked periodically

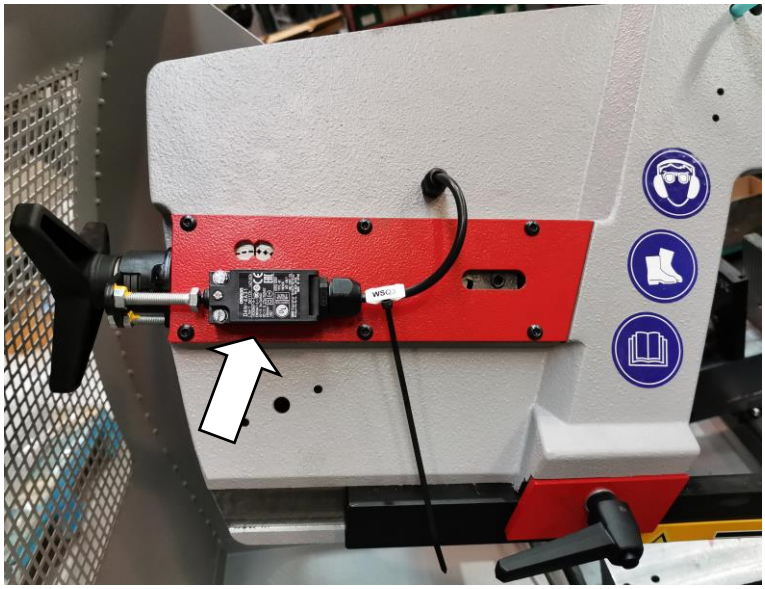


1. Loosen both mounting screws on the guide cubes and push it carefully to the band. Make sure the saw band is not bent; otherwise the cube will press against the band and damage it
2. Fasten both tightening screws again

Notice:
If the guide cube is correctly adjusted, the upper edge of the cube and the ruler are parallel.

4.5.4. Adjusting the limit switch of the saw band stretching

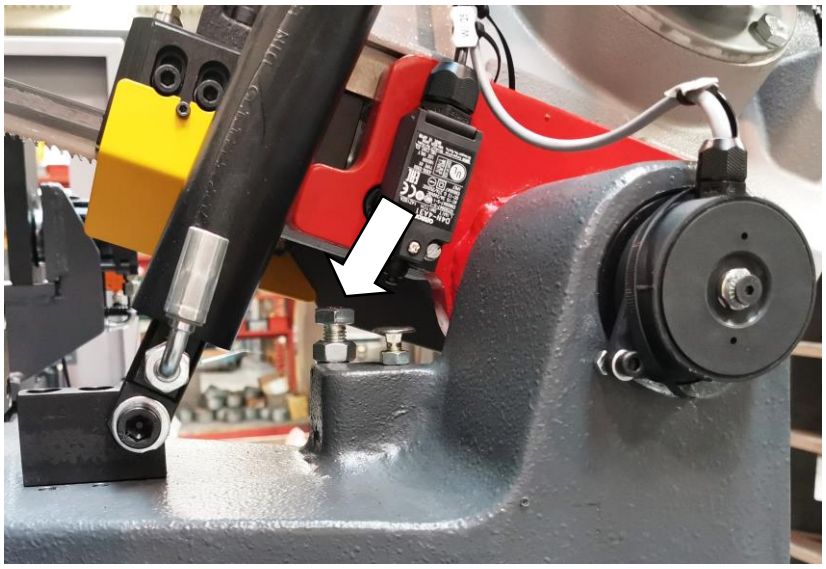
After the saw band is replaced, the limit switch setting must be checked. If the limit switch is not set correctly, the band is stretched either too much or too little.

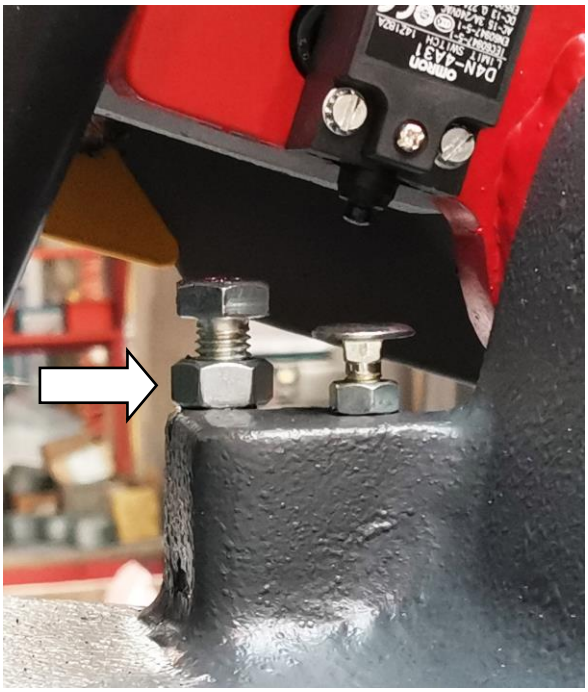


1. Stretch the band with help of the TENZOMAT to an optimal value
2. Release the nut on the stop screw
3. Start the band drive. Two scenarios may occur:
   - If the engine is switched on, but it does not run, turn the screw to the left until the engine starts to run
   - If the engine runs turn the screw to the right until it stops, then turn the screw shortly to the left until the engine starts running again
4. Fasten the stop screw with the nut and check the setting of the switch again.

4.5.5. Saw frame lower position stop adjustment

The lower stop limits the lowest position of the saw frame. This stop has to be checked at least once a month. If the lower stop is adjusted incorrectly, the loading surface of the table can be cut too deeply or the material will not be cut completely





1. Raise the saw frame to the upper position
2. Release the nut of the adjusting screw and adjust the stop
3. Fasten the adjusting screw with the nut again
4. Set the limit switch of the lower arm position

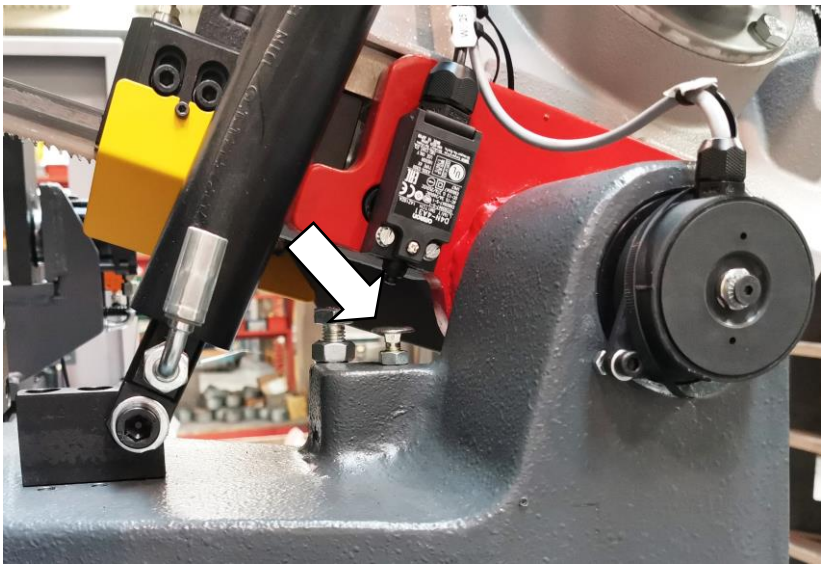
4.5.6. Adjustment of the limit switch of saw frame lower stop

If you have adjusted the lower stop of the saw frame, the limit switch adjustment inspection is required

Setting check

Lower the arm to the lowest position. If the arm lays on the lower stop and the switch reacts, the setting is correct. In other case carry out the switch setting

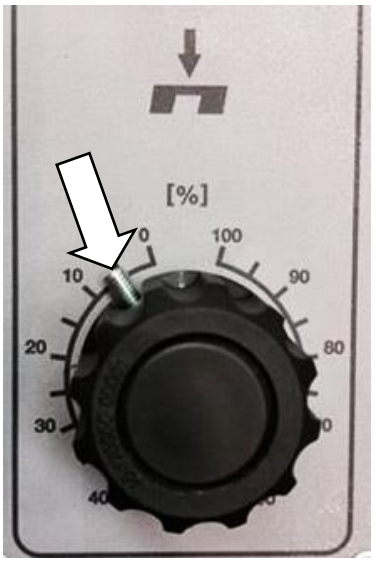
Switch setting



1. Release the nut of the stop screw and screw down the stop screw
2. Lower the arm to the lower stop and turn on the band driver
3. Screw out the stop screw until the band driver stops
4. Secure the screw with nut again and check the limit switch setting once more

4.5.7. Adjustment of a throttle valve

Switch off the machine by its main switch. Let the sawing head down at the bottom. Close the throttle valve gently.



The worm screw (see arrow) must be next to the stop (pos. 0), when the valve is closed.

Otherwise, you must loosen the worm screw, lift the plastic knob and close the throttle valve to the maximum. Next loosen the worm screw and take off the plastic knob. Put it back so that the worm screw must be next to the stop while the valve is closed.

Then tighten the worm screw again.

Turn the machine on and test the down-feed control

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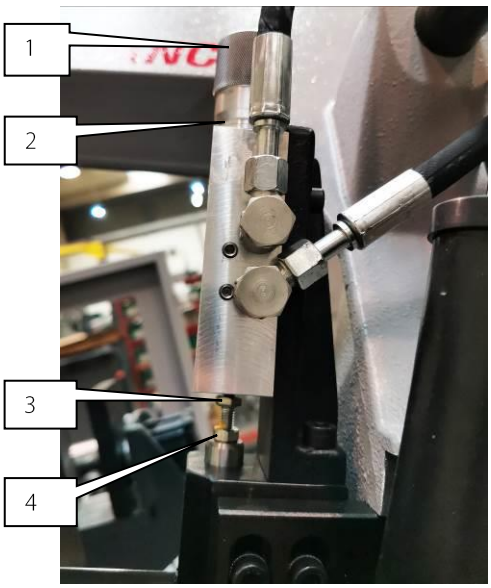
4.5.8. Adjustment of the regulating pressure to the cut

Device for regulation of the pressure to the cut is primarily set by the manufacturer.

Do not manipulate with adjustment of the device if you do not have serious reason!

Adjustment procedure:



1. Set the body of the regulation by adjusting handle. It is under the handle. Set it on the second groove. There is visible one neck (pos. 1, 2).
2. Screw the stopper screw to the maximum, or the valve will be blocked (pos. 3)
3. Now the frame can be freely moved up only, because the saw frame movement is blocked with the governing valve
4. Press button „ saw frame down „ screw on the setscrew
5. Screw in the stop screw as long as you reach the optimal speed of the frame sinking
6. Optimal speed of the frame sinking is between 40-50 sec.from max.lift.
7. Secure the adjusting screw by means of the nut after reaching of the sinking speed
8. Switch on the engine of the drive and check speed of the saw frame sinking again

4.6. Cooling agents and chip 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 • impurities • oil contamination from the outside (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 production increases • emulsions stability deteriorates • sticky residue develops

4.6.1. Coolant inspection

The state of the cooling agent has a significant influence on the cutting quality and on the lifespan 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 of the cooling liquid (especially with oils) and on other factors.

Note:
If the state of the cooling liquid is not satisfactory, the cooling liquid must be replaced.

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

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

Testing	Interval	Method	Condition	Precaution
Liquid level	daily	visually	too low	check concentration, add 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 replace coolant
Contamination	daily	by sense of smell	visible oil leaks, sludge fungi	surface cleaning, fix leaks, add biocides or fungicides; clean the system with a cleanser* prior to the coolant replacement
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, enquire the supplier
Foam reaction	when necessary	shaking test	too much foam, foam disperses too slowly	avoid aeration, increase water hardness, fix with defoamer

* According to manufacturer's instructions

4.6.2. Cooling liquid preparation

Prepare a mixture of water and cooling liquid. Conform the notes of the manufacturer and keep the manufacturer's-approved concentration

All instructions are stated on the tank of the cooling liquid or in documentation of the cooling liquid. For cooling liquid usage and disposal heed the instructions of the manufacturer.

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

When filling the tank with the cooling liquid take care that the liquid will not drip out of the tank and the tank does not overflow

Keep to the manufacturer specified recommendations for adding the anticorrosive agents, the antifreeze or other agents! Mixing two chemicals can produce toxic and aggressive substances, which can damage your health or the cooling system of the machine

Note: If the machine is equipped with Microniser (see. **Special accessory**), fill the tank of the Microniser with specified cooling liquid. Then the microniser is ready for the operation

The quality of the cooling agent will deteriorate due to:

- use of contaminated water
- impurities
- outside oil contamination (hydraulics, gears)
- high operating temperatures
- lack of air circulation
- wrong concentration

If the solution is too weak:

- corrosion protection is diminished
- lubrication decreases
- microbial attack is more likely

If the solution is too strong:

- the cooling ability is decreased
- foam behavior increases
- emulsions stability deteriorates
- sticky residue develops

4.6.3. Chips disposal

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

- Let the chips drip excess fluid!
- Put the chips into a watertight container. Make sure that the container does not leak, because even after a long dripping time, the chips still contain coolant residues.
- *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 micronisation device, the chips must also be handed over to a disposal company.

4.7. Gearbox oils and greases

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 DIN 51517 specification for the gearboxes. Select the ISO VG viscosity class according to the original oil.

Attention:
When replacing the oil, use oils recommended by BOMAR or oils from other manufacturers, which have comparable parameters. Do not forget, that mineral and synthetic oils must not be mixed!

Check the transmission seal oil regularly for leaks - at least three times a month.

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

Band saw	Gearbox oil	Capacity
ProfiCut 275.230 GANC	Paramo PP7	2,0 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. Lubrication greases

For lubrication we recommend using lithium based class NGLI-2 saponified grease. Different greases are mixable, if their oil bases and density classes 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

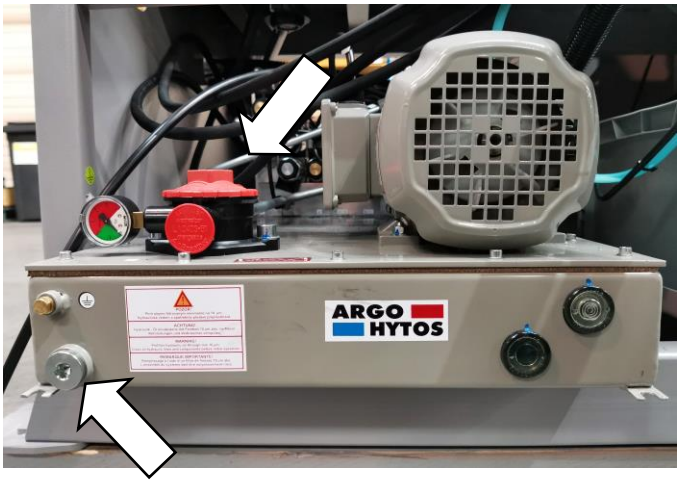
There are several assemblies on the machine,that have to be lubricated to ensure the correct function of the machine.

Place for lubrication	Description
	**The upper pivot of the lifting cylinder** drip oil once a week.
	**Linear guide of the feeder trolley** 2 lubricators Lubricate with grease once a three months (see chapter Lubricant greases). Use 3–5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3–5 times whole line of the linear guiding during lubrication.

4.7.4. Hydraulic oils

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

Filling plug is located on top of the tank, drain hole is located at the bottom of the tank.



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

Note:
When replacing the oil, use oils recommended by BOMAR or oils, from other manufacturers which have comparable parameters. Do not forget, that mineral and synthetic oils must not be mixed!

Comparative table of the hydraulic oils:

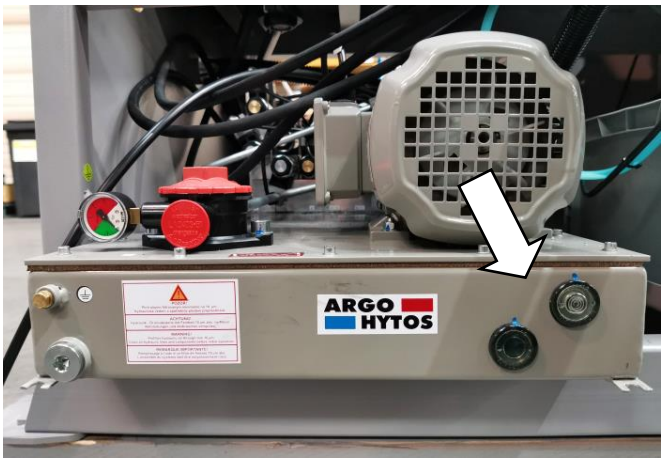
Manufacturer	Type	Manufacturer	Type
Agip	Oso 32	Ina	Hidraol 32 HD
Aral	Vitam GF 32	Klüber	Lamora HLP 32
Avia	Avilub RSL 32	Hungary	Hidrokomol P 32
Benzina	OH-HM 32	Mobil	Mobil DTE 25
BP	Energol HLP 32	ÖMV	HLP 32
Bulgaria	MX-M/32	Poland	Hydrol 30
Castrol	Hyspin AWS 32	Rumania	H 32 EP
Čepro	Mogul HM 32	Russia	IGP 30
DEA	Astron HLP 4hy6	Shell	Tellus Oil 32
Elf	Elfolna 32	Sun	Sunvis 846 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

The oil level must be located between the two halves of the glasses



- 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	-	-	•	-	-	-

4.8. Machine cleaning

Clean the machine off cooling agent and impurities after every shift. Conserve the guiding surfaces, mainly.

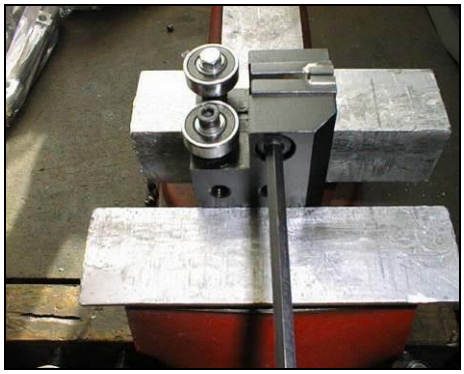
- Guiding of the clamping jaws of the main and feeder vice.
- Guiding of the feeder.
- The loading surface of the main and feeder vice
- Thread rod of the main and feeder vice

4.9. Worn pieces replacement

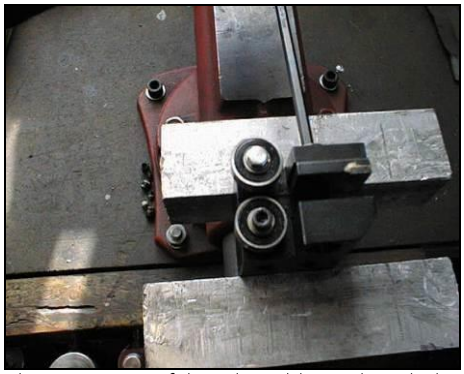
4.9.1. Hard metal guides replacement

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

1. Remove the hosepipe leading to the cooling agent and dismantle saw band and saw band guiding cube.



2. Fasten the guiding cube to the vice and screw out the screws of both the hard metal desks.



3. Screw out the adjusting screw of the adjustable guiding desk as far from the guide cube so that it is not possible to see it from the inner side.
4. Now insert new hard metal guides and fasten them tightly and fasten the guide cube to the gib.
5. Install the saw band and adjust guide cube and hard metal guides.

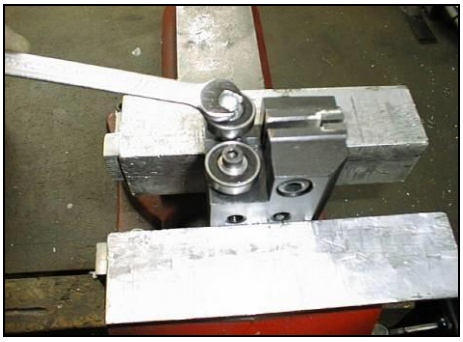
Attention!
Vice must has aluminum jaws or should be placed in a vice aluminum produc, that avoid damage to the pin during clamping.

4.9.2. Saw band guiding rollers replacement

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

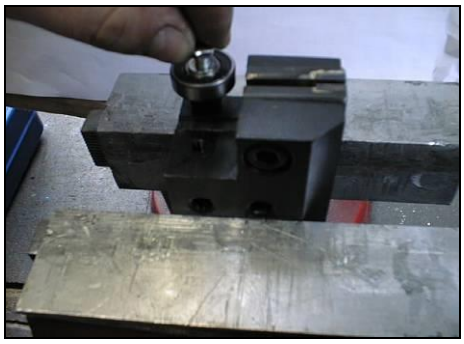
Attention! Guiding rollers must be replaced together on both guide cubes!

1. Remove the hosepipe leading to the cooling agent and dismantle saw band and saw band guide cube.

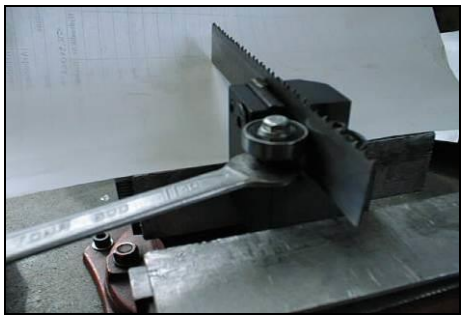


2. Grip the guide cube in the vice and screw out both fastening screws of the eccentrics.

3. Pull both guide rollers from their eccentrics.



4. Put new guide rollers on the eccentrics and screw the eccentrics to the guide cube.



5. Now insert a test piece of saw band (cca 15 - 20 cm) into the guide cube. Adjust both eccentrics so that the band runs in the middle of milled groove. This groove is located between both eccentrics. Guide rollers may not press too much on the band, but they must spin freely.

Optimal distance between band and roller is 0,05mm.

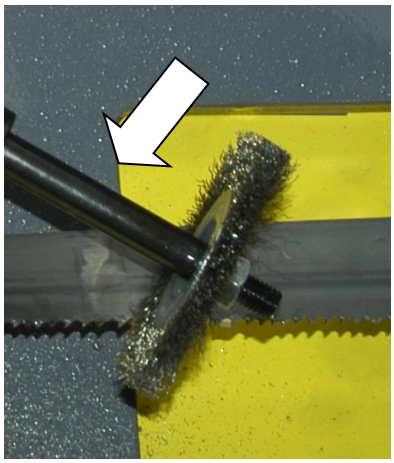
6. Install the cube on the gib. Install the saw band and adjust guiding cubes.

Attention!
Vice must has aluminum jaws or should be placed in a vice aluminum produc, that avoid damage to the pin during clamping.

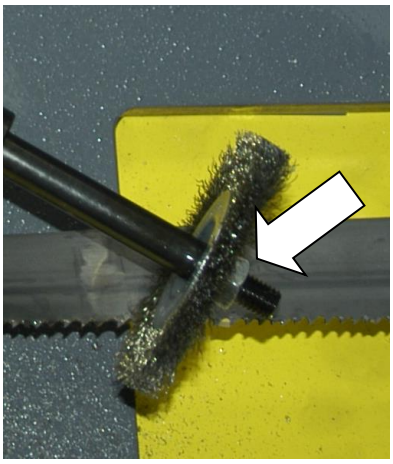
4.9.3. Round brush replacement

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

1. Open the cover of the band arm
2. Hold shaft of the brush by wrench.



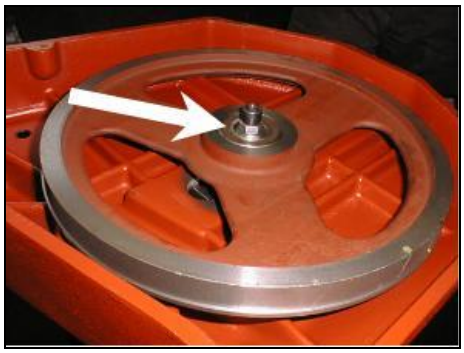
3. Release the nut on the brush, replace worn brush on the new brush, screw on the nut.



4. Adjust the brush to the saw band
5. Close saw arm cover

4.9.4. Stretching wheel replacement

1. Dismantle the saw band.



2. Screw off the stretching wheel screw and remove the washer.
3. Screw the auxiliary screw onto the shaft of the stretching wheel.

4. Put on the three-leg puller on the stretching wheel and pull off it from the shaft.

5. If the lower bearing stays on the shaft, pull of it from the shaft with a two-leg puller. Check both bearings; eventually replace them for new ones.

6. Insert the retaining ring into the hole of the new stretching wheel.

7. Insert a bearing into the hole in the wheel and push it to the retaining ring.

8. Clean the shaft and oil it. Install the new stretching wheel on the shaft.

9. Install the distance ring on the shaft and push it to the lower bearing.

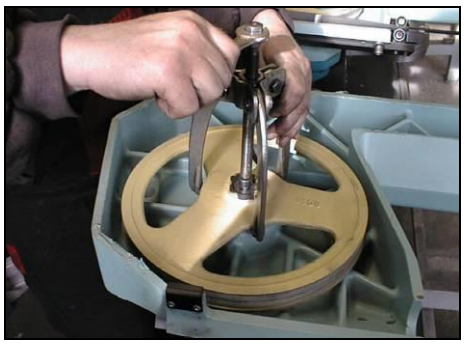
10. Install second bearing on the shaft and push it to the distance ring.

11. Install the washer and screw on the stretching wheel.
12. Install the saw band. Wheel replacement is done.

4.9.5. Driving wheel replacement

1. Dismantle the saw band.

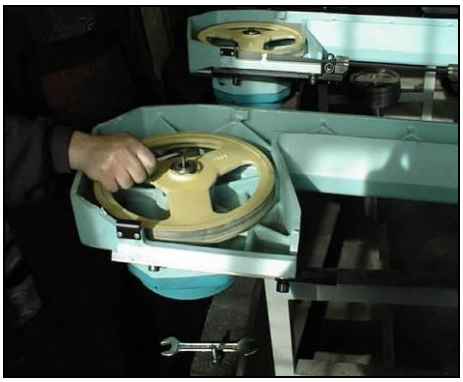
2. Screw of the fastening screw of the driving wheel and pull off the washer.
3. Screw on the auxiliary screw to the driving shaft.



4. Install the three-leg puller on the driving wheel and pull off it from the shaft.

5. Check, if the spring and the driving shaft are not damaged. Contact your supplier for parts replacement.

6. If the shaft and the feather are in good order, clean them, oil them and install them on the driving shaft.



7. Install the washer and screw on the driving wheel.
8. Install the saw band.

5. Závady / Störungen / Troubleshooting

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5.1. Mechanical problems

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

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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.	- Backslash 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 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

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Note:

Frequency Inverter
Do install the bandsaw machine at electrical Installation that corresponds recommended technical standards. We recommend to protect the machine using current protectores by characteristics U, able to compansate interchanges of rising current which escapes fromfilter of Frequency Inverter, so that additionalequipments to the machine will not be required than. We don't reccomend to protect a machine by a standard protector current, equipped by a smaller type under 100 mA. Standard used is 30 mA because of currnet escape in accordance of Frequency Inverters fitted on machine. Alternative soulutionshould be used currentprotector (FI) by sensitivity of 100 mA.

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6. Schémata / Schemas / Schematics

6.1. Elektrické schéma / Elektroschema / Wiring diagrams

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Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SA1	SPÍNAČ ČERNÝ 3 polohy - Harmony Switch black 3 positions - Harmony Schalter schwarz 3 Positionen - Harmony	ZB5-AD3	TELEMECANIQUE	91.060.024	1	/12.6
-SB1	hlavice zelená prosvětléná - Harmony Head green backlit - Harmony Kopf grün Hintergrundbeleuchtung - Harmony	ZB5AW33	TELEMECANIQUE	91.060.019	1	/12.3
-ZD1	Napájecí zdroj - 15VAC/24VDC; 20VAC/28VDC Power supply unit - 15VAC/24VDC; 20VAC/28VDC Netzteil - 15VAC/24VDC; 20VAC/28VDC	ZDR-03	Bomar	265.915	1	/8.3
-BM1	Bezpečnostní relé 24VDC, 3NO Safety relay 24VDC, 3NO Sicherheitsrelais 24VDC, 3NO	BT50	ABB	91.051.063	1	/15.5
-CU1	Klávesnice - fóliová Touch-sensitive keyboard Folientastatur	31.BC230-257	AKI ELECTRONIC, spol.s.r.o.	31.BC230-257	1	/16.0
-FA2	Motorový spouštěč - 4A Motor starter - 4A Motorstarter - 4A	MS116-4,0	ABB	91.045.022	1	/7.4
-CU1	Řídící obvod Control circuit Die Steuerschaltung	PRO-5.xU	Bomar	91.995.226	1	/16.0
-FU1	Pojistka trubičková - 500mA/250V, pomalá, 5x20 Tube fuse - 500mA/250V, slow, 5x20 Rohrsicherung - 500 mA / 250 V, langsam, 5x20	T500mA/250V	ESKA	91.230.011	1	/8.5
-FU3	Pojistka trubičková - 6,3A/250V, pomalá, 5x20 Tube fuse - 6,3A/250V, slow, 5x20 Rohrsicherung - T6,3A / 250V, langsam, 5x20	T6,3A/250V	ESKA	91.230.002	1	/8.5
-LQ1	Reflexní světelná závora Retro-reflective sensor Reflexlichtschranke	IFM.O6P203	IFM electronic	91.401.032	1	/13.7
-LQ1	Odrazka Reflector Reflektor	IFM.E20452	IFM electronic	91.175.015	1	/13.7
-RCF1	Filtr RFC vývodový Efferent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/7.1

The manufacturer reserves right to use an equivalent replacement device.

2

Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-RCF2	Filtr RFC vývodový Efferent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/7.3
-RCF3	Filtr RFC vývodový Efferent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/7.6
-RCF11	Filtr RFC vývodový Efferent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/6.5
-RCF12	Filtr RFC vývodový Efferent RFC filter Ableitenden RFC Filter	FBOPR1624	Ing. Miroslav Vlček	91.041.015	1	/6.7
-FA1	Motorový spouštěč - 0.4A Motor starter - 0.4A Motorstarter - 0.4A	MS116-0,4	ABB	91.045.017	1	/7.2
-FA1	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/7.2
-FA2	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/7.4
-FA3	Motorový spouštěč - 4A Motor starter - 4A Motorstarter - 4A	MS116-4,0	ABB	91.045.022	1	/7.7
-FA3	Pomocné kontakty - 1xNO+1xNC Auxiliary contacts - 1xNO+1xNC Hilfskontakte - 1xNO+1xNC	HKF1-11	ABB	91.046.002	1	/7.7
-FU1	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSi5U	WIELAND	91.251.102	1	/8.5
-FU2	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSi5U	WIELAND	91.251.102	1	/8.5
-FU2	Pojistka trubičková - 1A/250V, pomalá, 5x20 Tube fuse - 1A/250V, slow, 5x20 Rohrsicherung - 1A / 250V, langsam, 5x20	T1A/250V	ESKA	91.230.031	1	/8.5

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Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-FU3	Svorka pojistková Fuse terminal Sicherungsklemme	WK4/THSi5U	WIELAND	91.251.102	1	/8.5
-KM1	Ministykač 4kW/400V Minicontactor 4kW/400V Minischutz 4kW/400V	B6S-30-01-1.7-71	ABB	91.040.049	1	/9.3
-KM2	Ministykač 4kW/400V Minicontactor 4kW/400V Minischutz 4kW/400V	B6S-30-01-1.7-71	ABB	91.040.049	1	/9.4
-KM3	Ministykač 4kW/400V Minicontactor 4kW/400V Minischutz 4kW/400V	B6S-30-01-1.7-71	ABB	91.040.049	1	/9.6
-KM11	Ministykač 4kW/400V Minicontactor 4kW/400V Minischutz 4kW/400V	B6S-30-01-1.7-71	ABB	91.040.049	1	/15.7
-KM12	Ministykač 4kW/400V Minicontactor 4kW/400V Minischutz 4kW/400V	B6S-30-01-1.7-71	ABB	91.040.049	1	/15.8
-PA2	Pojistkový odpojovač E-90 - 2P Fuse disconnector E-90 - 2P Sicherungstrenner E90 - 2P	E 92/32	ABB	91.241.013	1	/8.1
-RE1	Paticové relé CR-P Plug-in relay CR-P Stecken Sie in Relais CR-P	CR-P024DC2	ABB	91.051.049	1	/11.8
-RE1	Patice pro relé Relay socket Relaissockel	CR-PSS	ABB	91.051.048	1	/11.8
-RE2	Paticové relé CR-P Plug-in relay CR-P Stecken Sie in Relais CR-P	CR-P024DC2	ABB	91.051.049	1	/11.9
-RE2	Patice pro relé Relay socket Relaissockel	CR-PSS	ABB	91.051.048	1	/11.9
-SA3	Přepínač 2 polohy Switch 2 positions Schalter 2 Positionen	M22 - WKV	EATON	91.060.037	1	/17.1

The manufacturer reserves right to use an equivalent replacement device.

3.a

Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-SA3	Upevňovací adaptér + 1NO Attaching adapter + 1NO Montageadapter + 1NO	M22-AK10	EATON	91.061.021	1	/17.1
-SB501	Total stop - hlavice + 2xNC Emergency-stop mushroom push - button + 2xNC Not-Aus-Pilz - Taster + 2xNC	YW1B-V4E02R	IDEC	91.060.084	1	/15.4
-TR1	Toroidal transformer - 0-230-400V/20V/15V, 150VA Toroidal transformer - 0-230-400V/20V/15V, 150VA Ringkerntransformator - 0-230V-400V/20V/15V, 150VA	400V/230V/20V/15V 6A/2A 150VA	KARBAN s.r.o.	91.080.026	1	/8.2
-SQ21	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/15.4
-SQ22	Bezpečnostní koncový spínač - 2xNC Safety Limit Switch - 2x NC Sicherheitsendschalter - 2x NC	QKS8	KEDU	91.173.012	1	/15.2
-PA2	Pojistka válcová - 2A, 10x38, pomalá Tube fuse - 2A, 10x38, slow Rohrsicherung - 2A, 10x38, langsam	PV10 2A gG	OEZ	91.230.034	2	/8.1
-SQ3	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/13.4
-SQ5	Koncový spínač - 1NC+1NO Limit switch - 1NC+1NO Endschalter - 1NC+1NO	D4N-4A31	OMRON	91.173.007	1	/13.6
-SQ1	Koncový spínač - 1NO + 1NC, kladka, pomalá akce Limit switch - 1NO + 1NC, pulley, slow action Endschalter - 1NO + 1NC, rolle, langsame Einwirkung	FR 605-M2	PIZZATO	91.173.009	1	/11.7
-SQ4	Koncový spínač - 1NO + 1NC, kladka, pomalá akce Limit switch - 1NO + 1NC, pulley, slow action Endschalter - 1NO + 1NC, rolle, langsame Einwirkung	FR 605-M2	PIZZATO	91.173.009	1	/13.5
-SB501	1xNO kontakt 1xNO contact 1xNO Kontakt	ZBE-101	TELEMECANIQUE	91.061.012	1	/12.2
-QS2	Spínač vačkový - 2 polohy Switch cam - 2 positions Switch cam - 2 positions	S10-60129	SALZER ELECTRONICS LIMITED	91.171.006	1	/7.7

The manufacturer reserves right to use an equivalent replacement device.

3.b

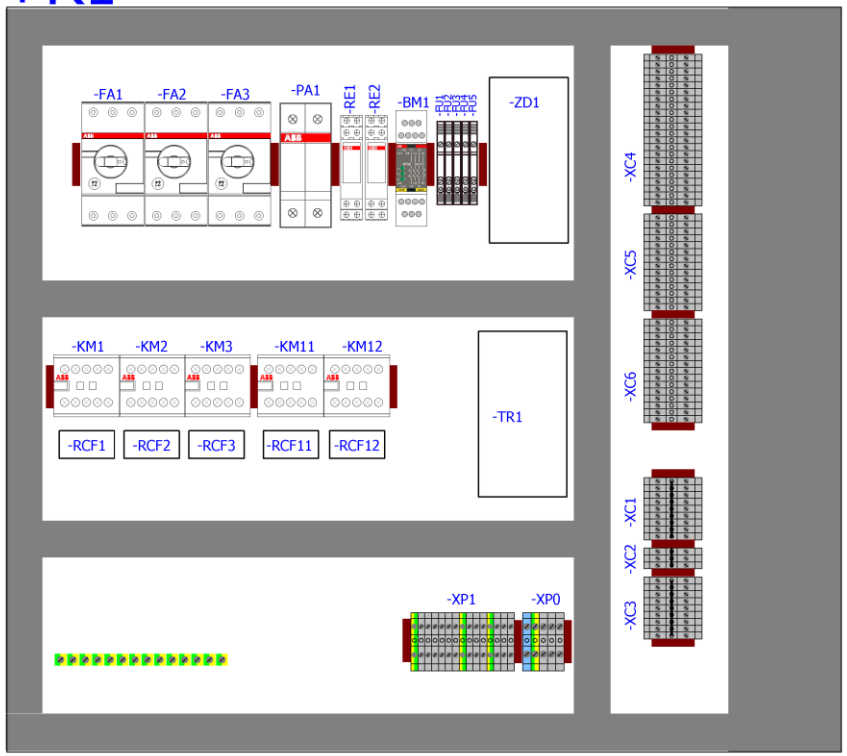
Kusovník artiklů / Parts list / Stückliste

Označení přístroje Device identification Geräteidentifikation	Typ přístroje Device description Gerätebeschreibung	Objednací číslo Type number Typennummer	Výrobce Manufacturer Hersteller	Skladové číslo Part number Lagernummer	Množství Quantity Menge	Umístění Location Stelle
-QS1	3 pólový odpínač, 16A Disconnector - 3P, 16A Trennschalter - 3P, 16A	SAP16-03-M1	SALZER YUEQING LEYI	91.170.028	1	/6.1
-M1	Čerpadlo chlazení 120W Cooling pump 120W Kühlpumpe 120W	PA70/120	SAP srl	91.020.032	1	/7.2
-M3	Dvourychlostní asynchronní motor 0,7/1,1kW; 3x400V Two speed asynchronous motor 0,7/1,1kW; 3x400V Zwei Geschwindigkeit Asynchronmotor 0,7/1,1kW; 3x400V	MSD 90L- 8/4 B14-FT115	SHANGHAI TOP MOTOR., LTD	91.001.125	1	/7.7
-LQ1	Kabel ke snímači s rovným konektorem Sensor cable with straight connector Sensorkabel mit geradem Stecker	MOD.15/4 M12 SL LC10	SICK	91.142.002	1	/13.7
-+OP1-SB3	Hlavice prosvětleného tlačítka žlutá The button head backlit yellow Der Knopf Kopf von hinten beleuchtet gelb	ZB5AW35	TELEMECANIQUE	91.060.023	1	/15.6
-SB2	Hlavice tlačítka černá Button black head Taste Mitesser	ZB5AA2	TELEMECANIQUE	91.060.013	1	/12.5
-XUSB	Konektor USB Connector USB Anschluss USB	CLIFF CP30110	CLIFF	91.141.110	1	/14.7
-XUSB	Kryt zásuvky USB USB socket cover Abdeckung der USB-Buchse	CLIFF CP30112	CLIFF	91.141.111	1	/14.7

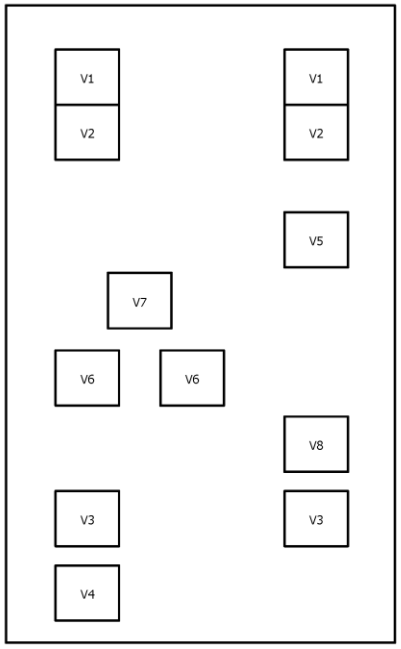
The manufacturer reserves right to use an equivalent replacement device.

3.c

+R1



Rozmístění ventilů / valve placement / Ventilplatzierung



3.d

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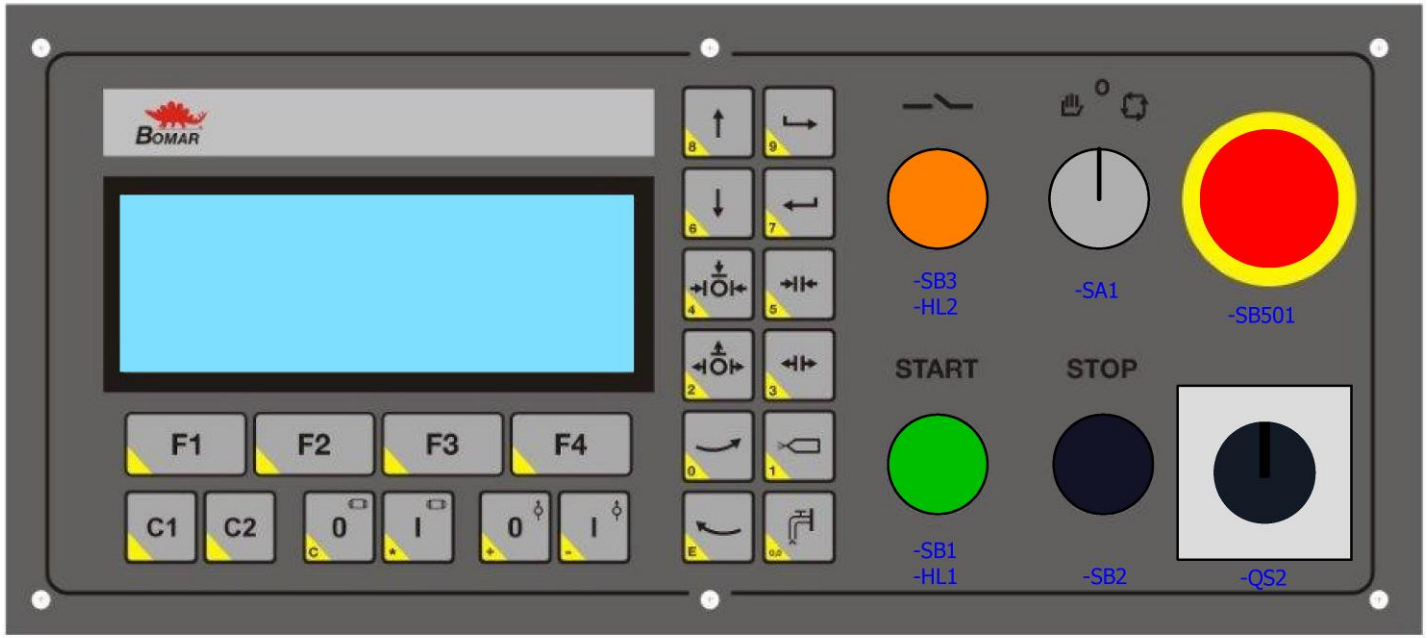
			Napájení/Power supply/Einspeisung:	3x400V+PE, 50Hz	
			Zpracoval/Processed /Hat verarbeitet:		Listů/Pages/Seiten: 21
			Datum/Date/Datum:	15.10.2019	

+OP1



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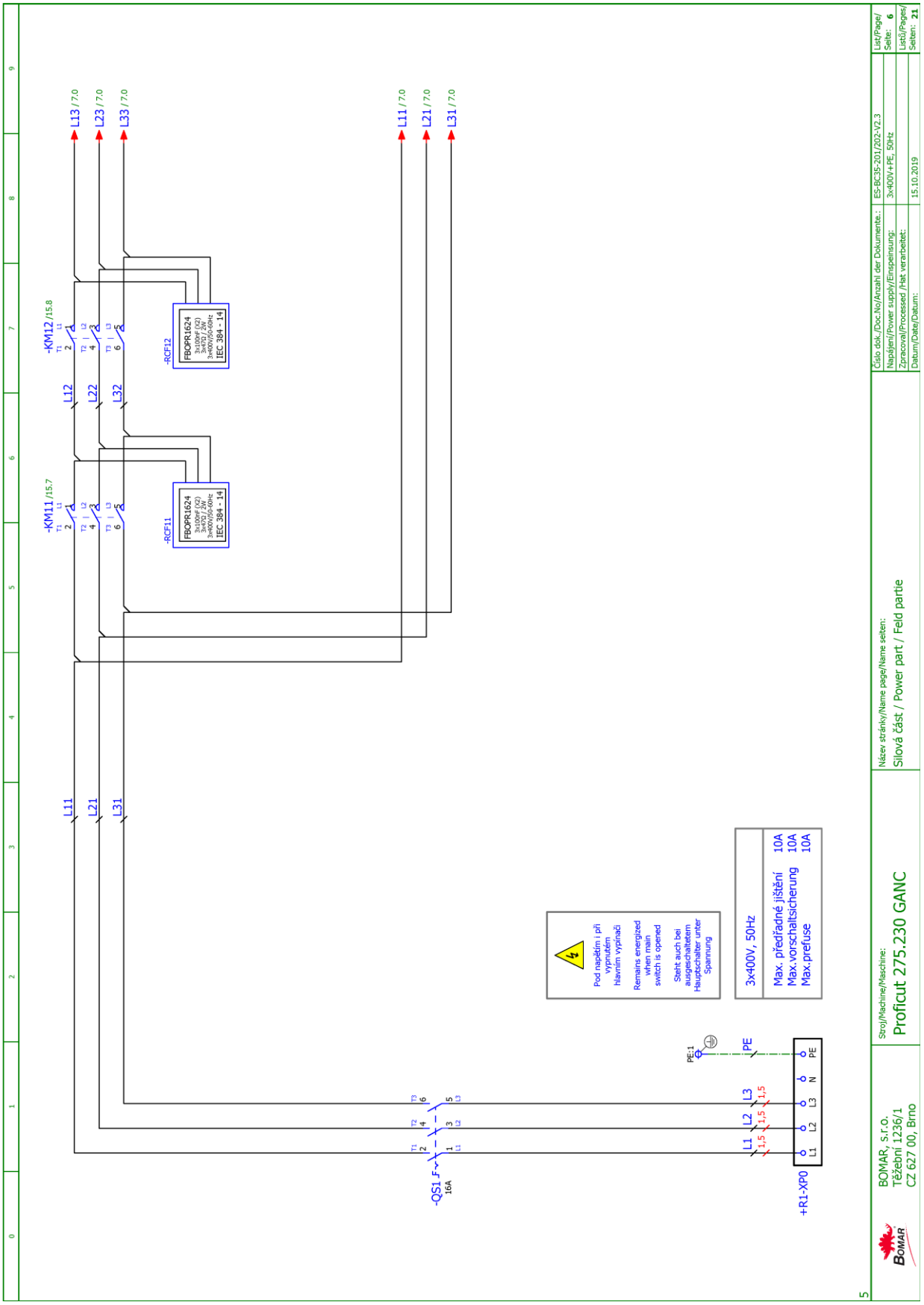
			Datum/Date/Datum:	15.10.2019	


L13 /7.0
L23 /7.0
L33 /7.0
L11 /7.0
L21 /7.0
L31 /7.0
+KM12 /15.8
+KM11 /15.7
-RCF12
-RCF11
FBOPR1624
IEC 384 - 14
L12
L22
L32
L11
L21
L31
Pod napětím i při vypnutém hlavním vypínači
Remains energized when main switch is opened
Steht auch bei ausgeschaltetem Hauptschalter unter Spannung
3x400V, 50Hz
Max. předřadné jištění 10A
Max.vorschaltsicherung 10A
Max.prefuse 10A
PE:1
PE
-QS1 F~ 16A
+R1-XP0
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Silová část / Power part / Feld partie
Číslo dok./Doc.No/Anzahl der Dokumente.:
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Napájení/Power supply/Einspeinsung:
3x400V+PE, 50Hz
Zpracoval/Processed /Het verarbeitet:
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15.10.2019
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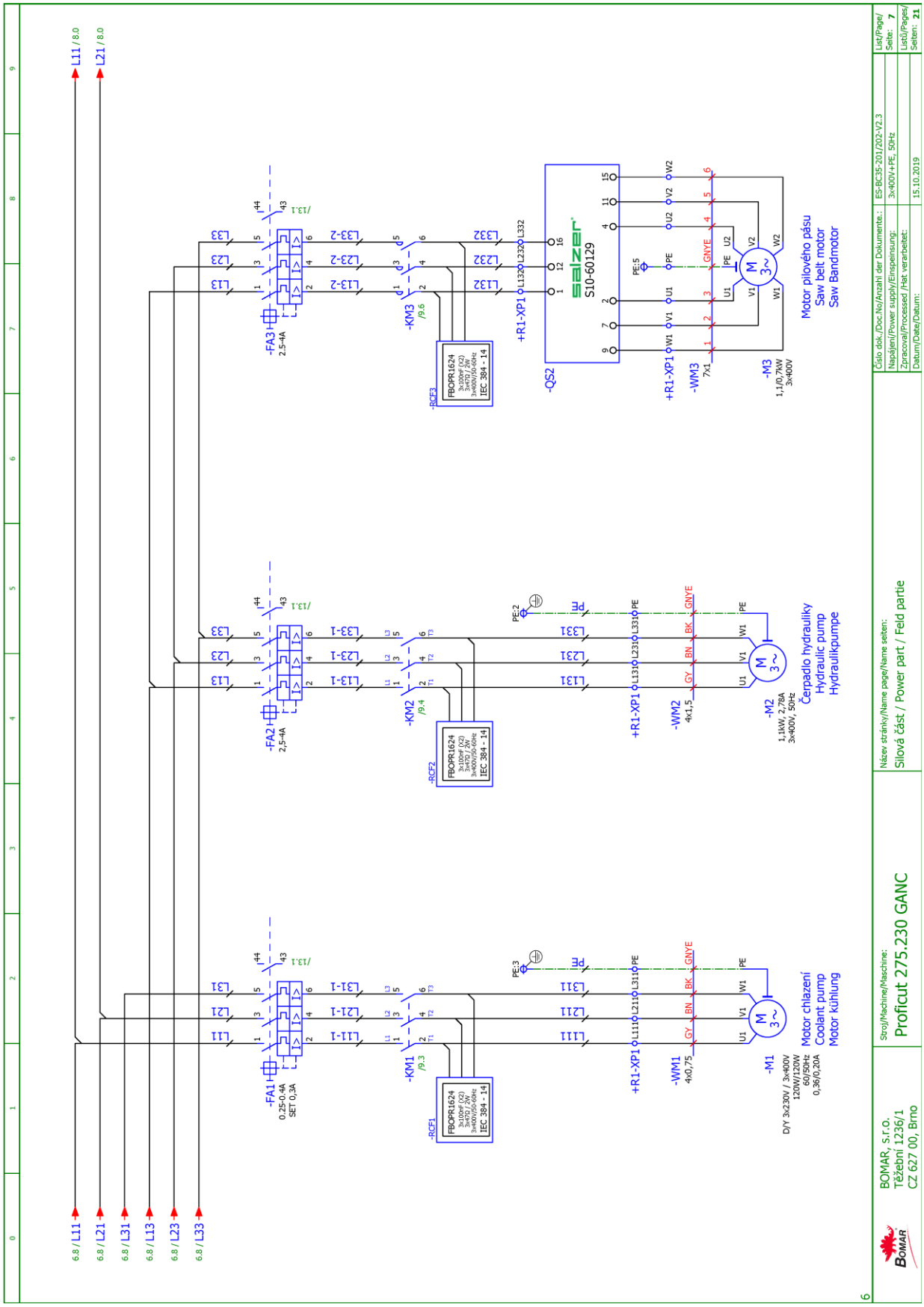
Seiten: 21


L11 / 8.0
L21 / 8.0
6.8 / L11
6.8 / L21
6.8 / L31
6.8 / L13
6.8 / L23
6.8 / L33
-FA1
0,25-0,4A
SET 0,3A
-FA2
2,5-4A
-FA3
2,5-4A
-KM1
/9.3
-KM2
/9.4
-KM3
/9.6
-RCF1
-RCF2
-RCF3
FBOPR1624
IEC 384 - 14
-QS2
elzer
S10-60129
+R1-XP1
-WM1
4x0,75
-WM2
4x1,5
-WM3
7x1
-M1
D/Y 3x230V / 3x400V
120W/120W
60/50Hz
0,36/0,20A
Motor chlazení
Coolant pump
Motor kühlung
-M2
1,1kW, 2,78A
3x400V, 50Hz
Čerpadlo hydrauliky
Hydraulic pump
Hydraulikpumpe
-M3
1,1/0,7kW
3x400V
Motor pilového pásu
Saw belt motor
Saw Bandmotor
PE:1
PE:2
PE:3
PE:5
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
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Číslo dok./Doc.No/Anzahl der Dokumente:
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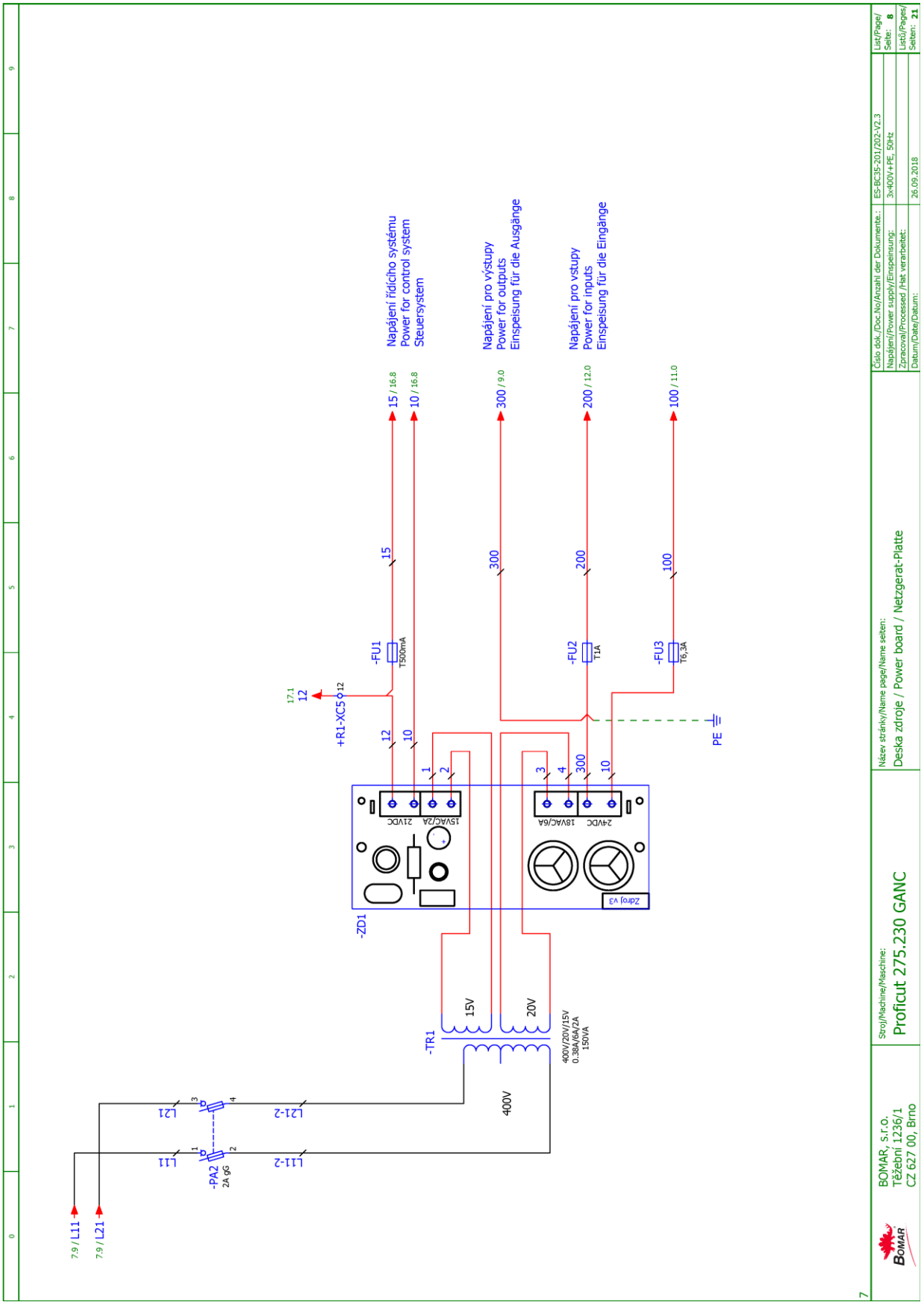
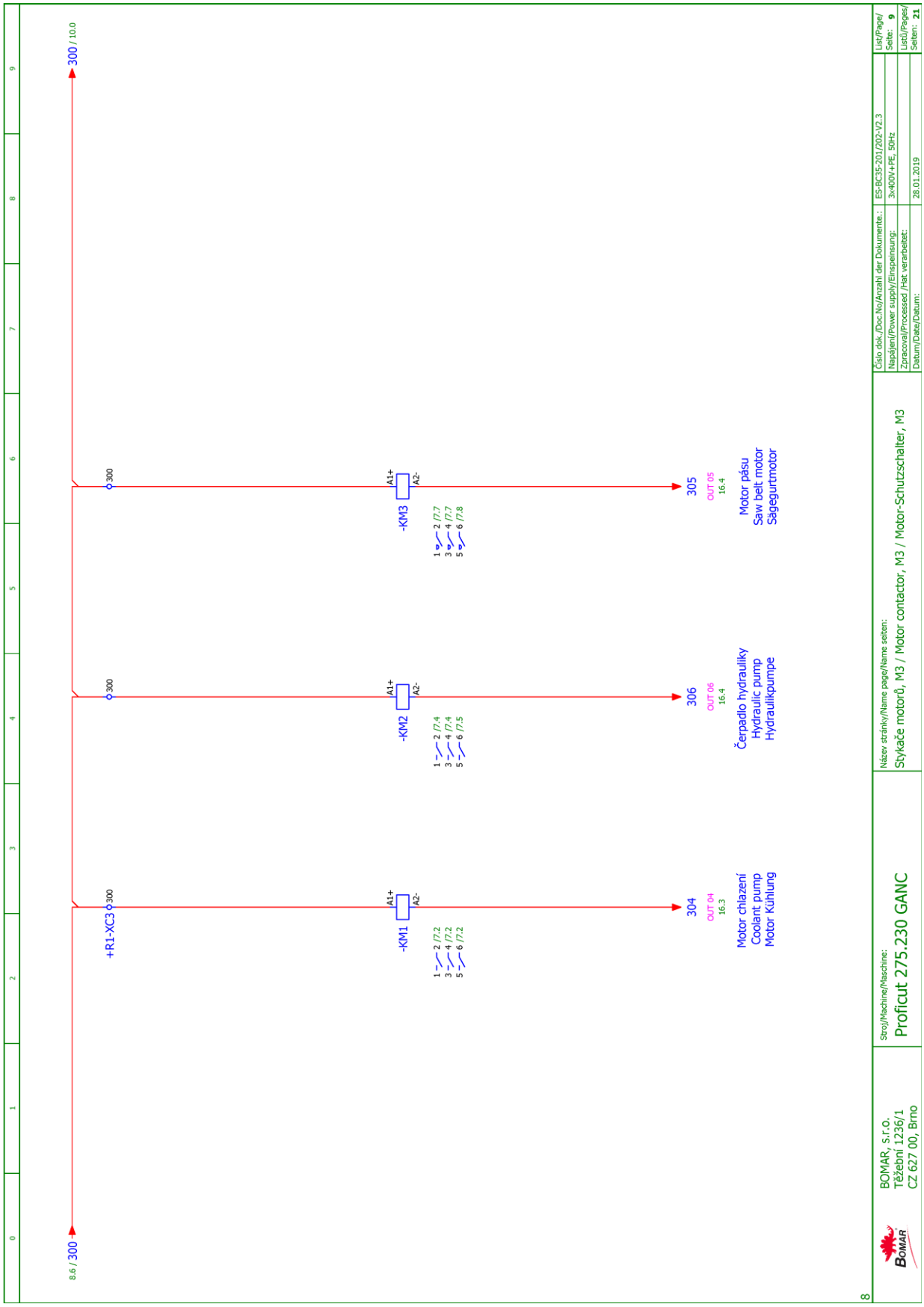
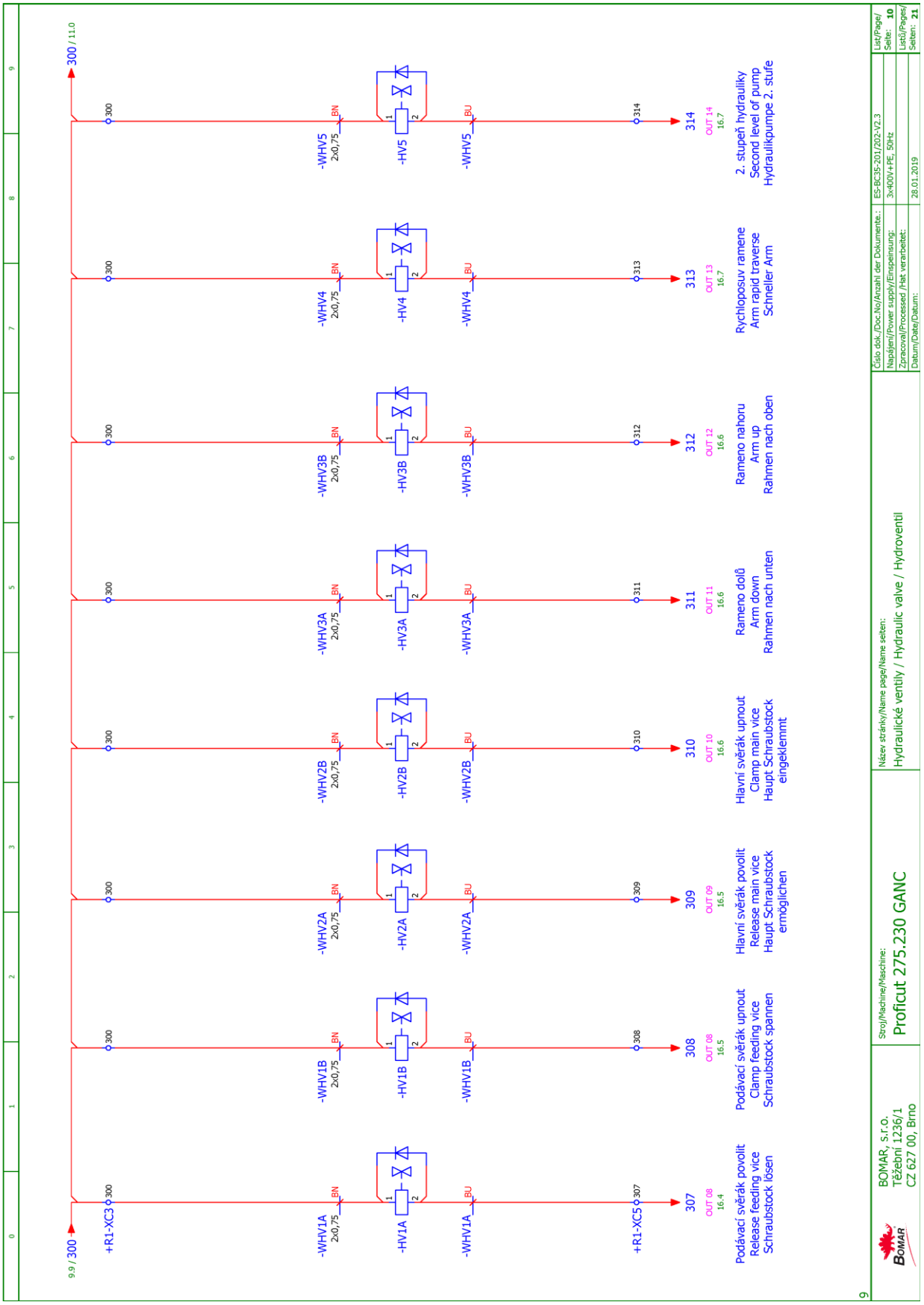
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
15.10.2019
List/Page/
Seite:
7
Listů/Pages/
Seiten:
21

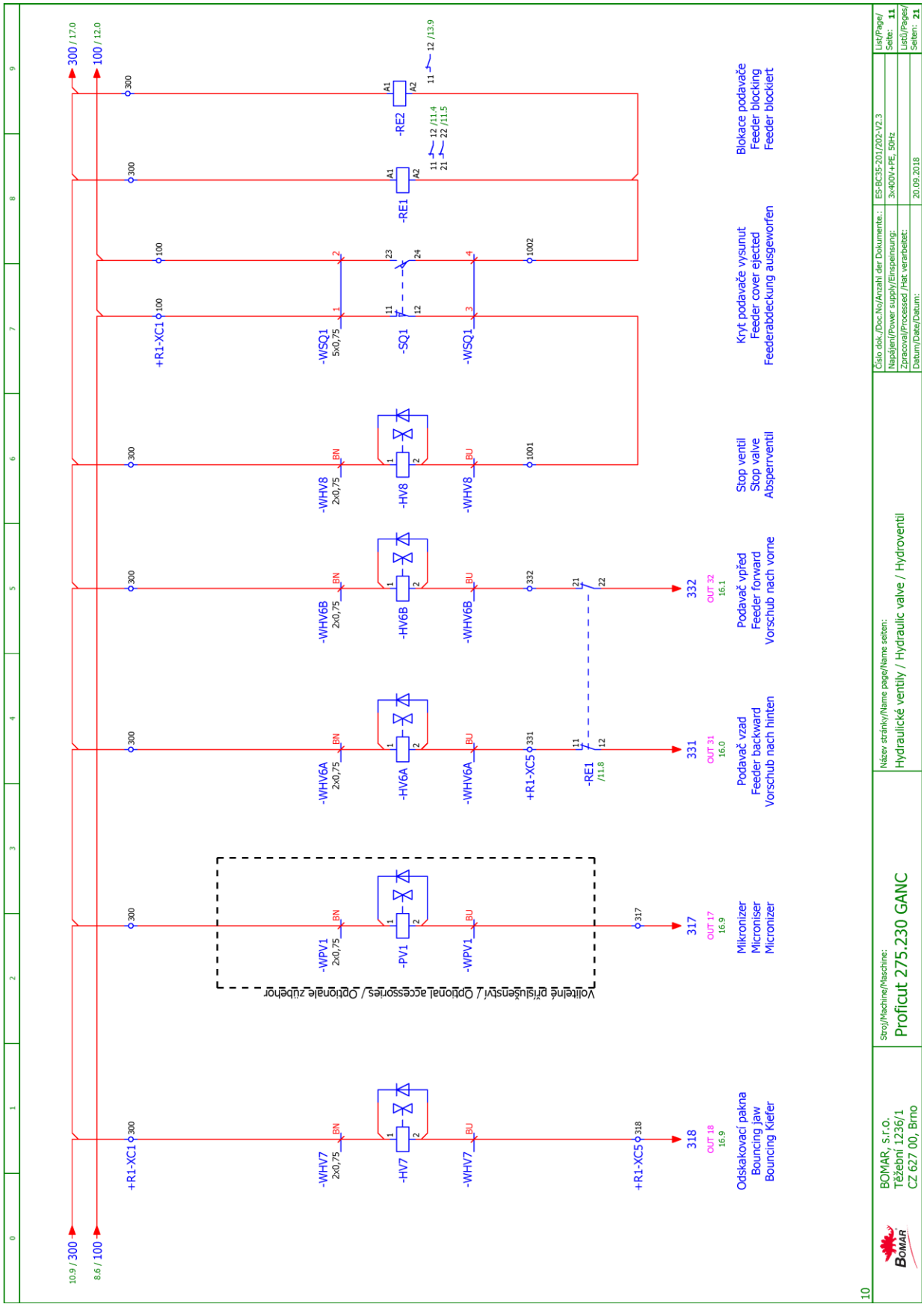


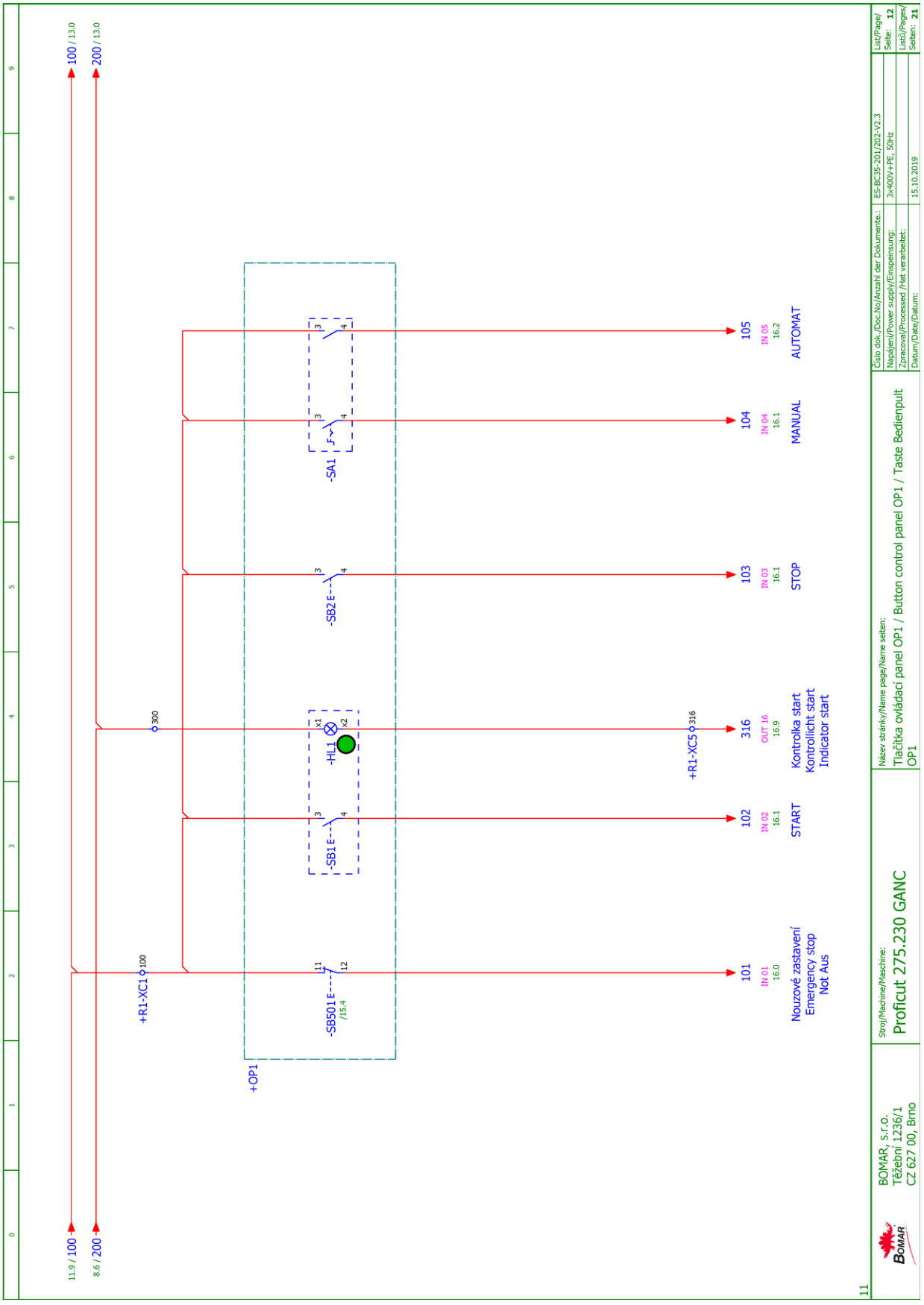
Manual version: 1.13 / March 2021
Manual rev.: 1


8.6 / 300
300 / 10.0
+R1-XC3
300
-KM1
-KM2
-KM3
A1+
A2-
1 2 /7.2
3 4 /7.2
5 6 /7.2
1 2 /7.4
3 4 /7.4
5 6 /7.5
1 2 /7.7
3 4 /7.7
5 6 /7.8
304
OUT 04
16.3
306
OUT 06
16.4
305
OUT 05
16.4
Motor chlazení
Coolant pump
Motor Kühlung
Čerpadlo hydrauliky
Hydraulic pump
Hydraulikpumpe
Motor pásu
Saw belt motor
Sägegurtmotor
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Stykače motorů, M3 / Motor contactor, M3 / Motor-Schutzschalter, M3
Číslo dok./Doc.No/Anzahl der Dokumente.:
ES-BC35-201/202-V2.3
Napájení/Power supply/Einspeisung:
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
28.01.2019
List/Page/
Seite: 9
Listů/Pages/
Seiten: 21
8

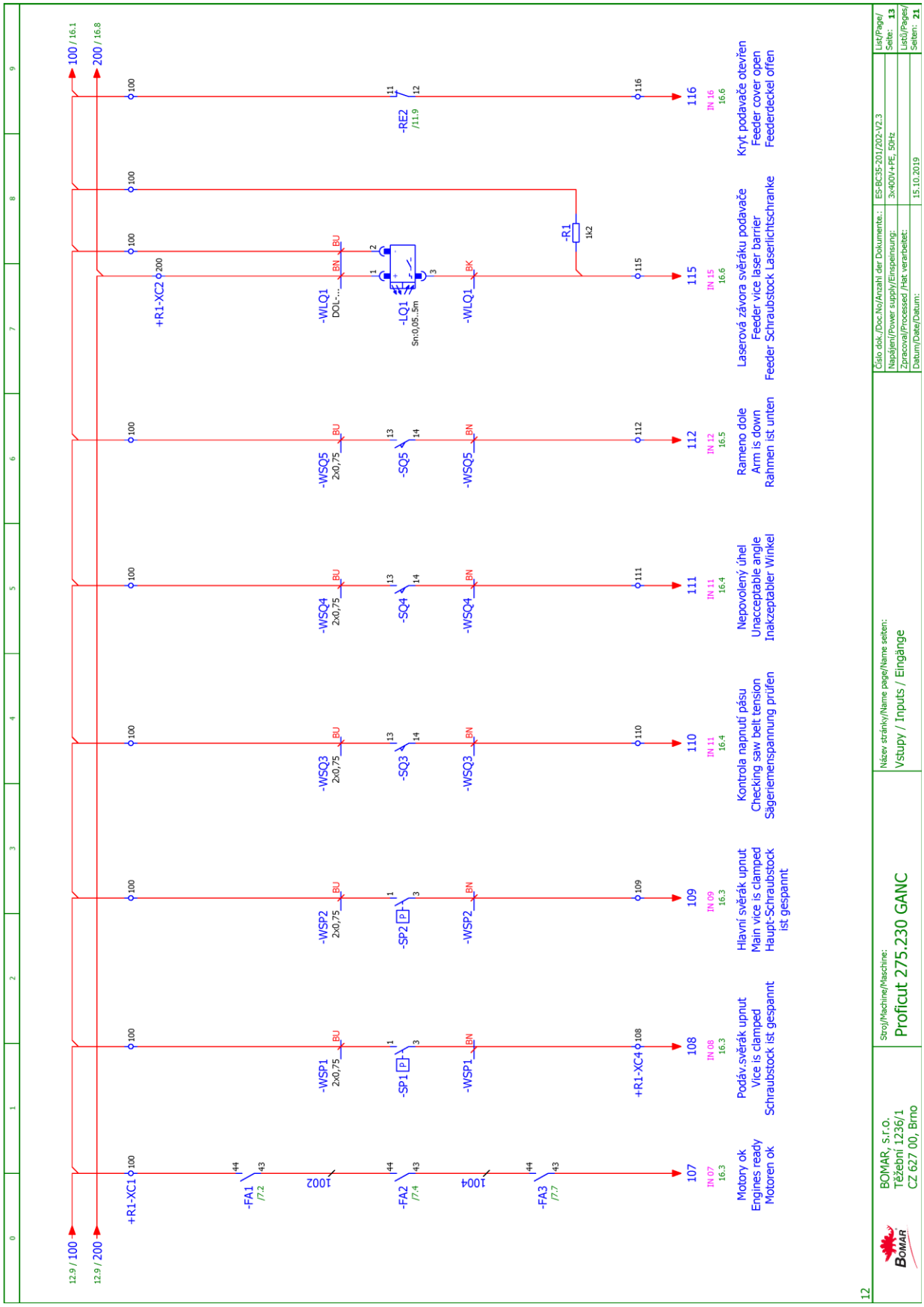


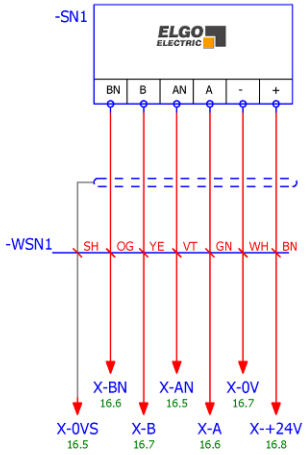
Manual version: 1.13 / March 2021
Manual rev.: 1


BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Hydraulické ventily / Hydraulic valve / Hydroventil
Číslo dok./Doc.No/Anzahl der Dokumente:
ES-BC35-201/202-V2.3
Napájení/Power supply/Einspeisung:
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
20.09.2018
List/Page/Seite: 11
Listů/Pages/Seiten: 21
10.9 / 300
8.6 / 100
300 / 17.0
100 / 12.0
+R1-XC1
+R1-XC5
-WHV7 2x0,75
-HV7
-WHV7
318
OUT 18
16.9
Odskakovací pakna
Bouncing jaw
Bouncing Kiefer
Volitelné příslušenství / Optional accessories / Optionale zubehör
-WPV1 2x0,75
-PV1
-WPV1
317
OUT 17
16.9
Mikronizer
Microniser
Micronizer
-WHV6A 2x0,75
-HV6A
-WHV6A
+R1-XC5
-RE1 /11.8
331
OUT 31
16.0
Podavač vzad
Feeder backward
Vorschub nach hinten
-WHV6B 2x0,75
-HV6B
-WHV6B
332
OUT 32
16.1
Podavač vpřed
Feeder forward
Vorschub nach vorne
-WHV8 2x0,75
-HV8
-WHV8
Stop ventil
Stop valve
Absperrventil
+R1-XC1
-WSQ1 5x0,75
-SQ1
-WSQ1
Kryt podavače vysunut
Feeder cover ejected
Feederabdeckung ausgeworfen
-RE1
-RE2
Blokace podavače
Feeder blocking
Feeder blockiert

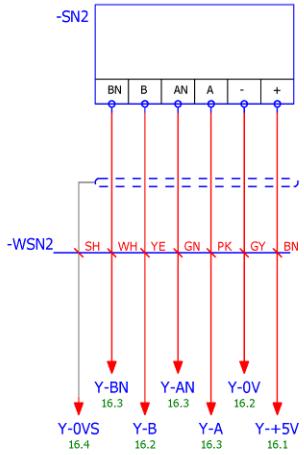


Manual version: 1.13 / March 2021
Manual rev.: 1

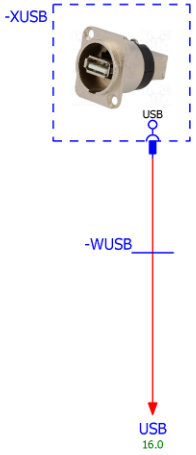

BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Vstupy / Inputs / Eingänge
Číslo dok./Doc.No/Anzahl der Dokumente:
ES-BC35-201/202-V2.3
Napájení/Power supply/Einspeisung:
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
15.10.2019
List/Page/Seite: 13
Listů/Pages/Seiten: 21
12.9 / 100
12.9 / 200
100 / 16.1
200 / 16.8
+R1-XC1
+R1-XC2
-FA1 /7.2
-FA2 /7.4
-FA3 /7.7
-WSP1 2x0,75
-WSP2 2x0,75
-WSQ3 2x0,75
-WSQ4 2x0,75
-WSQ5 2x0,75
-SP1
-SP2
-SQ3
-SQ4
-SQ5
-WLQ1 DOL-...
-LQ1 Sn:0,05..5m
-RE2 /11.9
-R1 1K2
+R1-XC4
1002
1004
Motory ok
Engines ready
Motoren ok
Podávy svěrák upnut
Vice is clamped
Schraubstock ist gespannt
Hlavní svěrák upnut
Main vice is clamped
Haupt-Schraubstock ist gespannt
Kontrola napnutí pásu
Checking saw belt tension
Sägeriemenspannung prüfen
Nepovolený úhel
Unacceptable angle
Inakzeptabler Winkel
Rameno dole
Arm is down
Rahmen ist unten
Laserová závora svěráku podavače
Feeder vice laser barrier
Feeder Schraubstock Laserlichtschranke
Kryt podavače otevřen
Feeder cover open
Feederdeckel offen
107
108
109
110
111
112
115
116
12



Senzor polohy podavače
Feeder position sensor
Feeder-Positionssensor



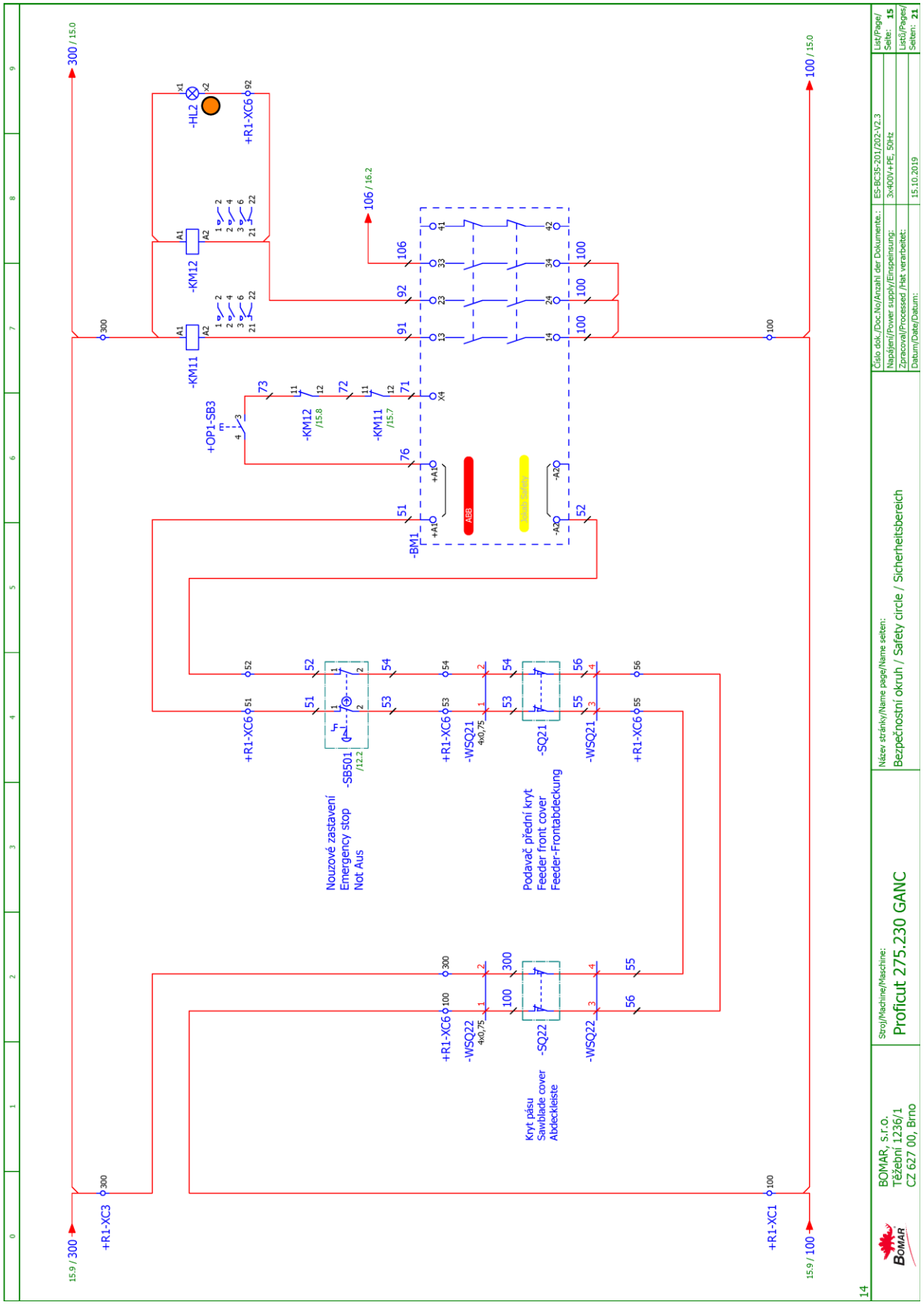
Senzor polohy ramene
Sawframe position sensor
Rahmenposition sensor

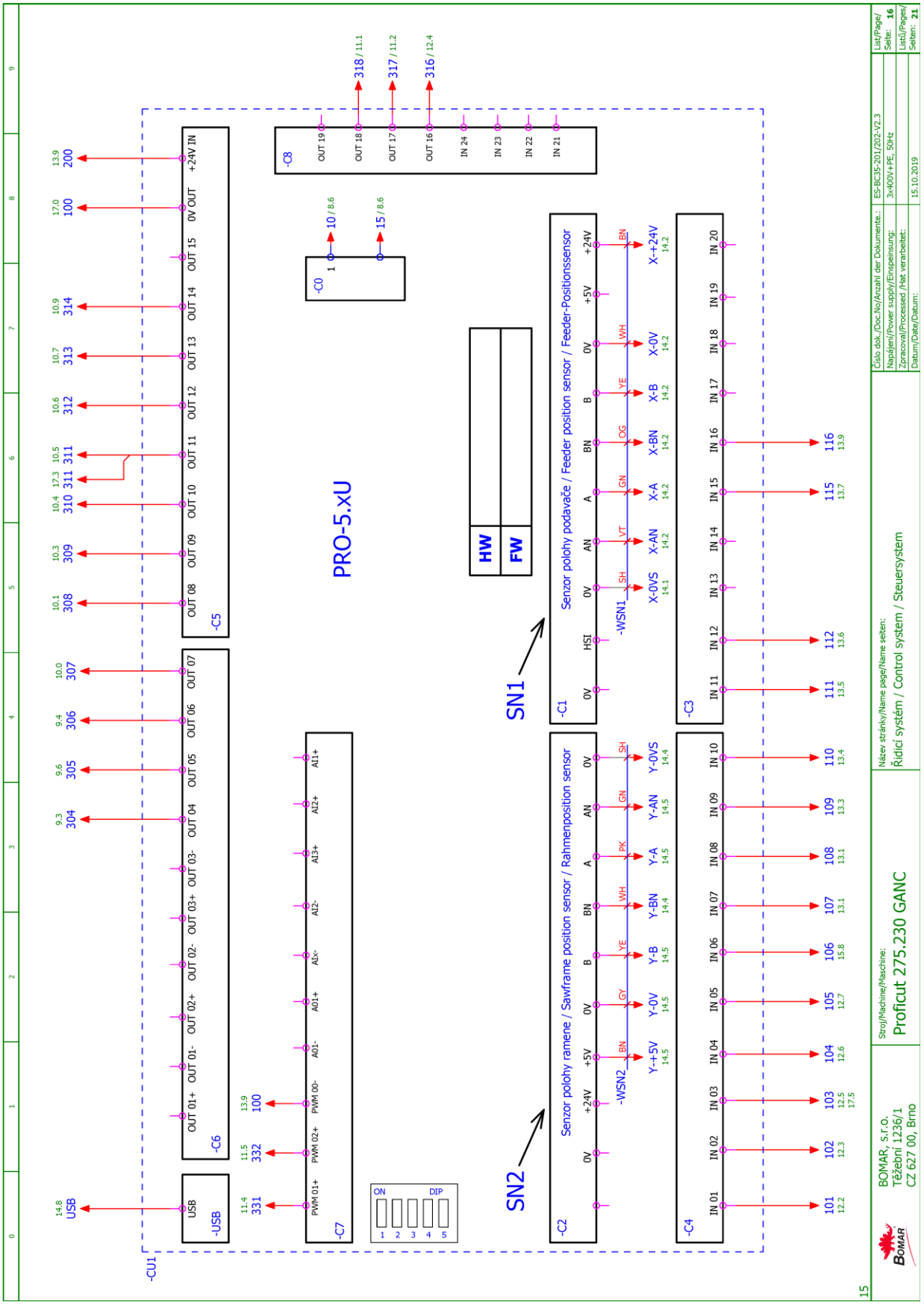


Externí připojení USB
External USB connection
Externe USB-Verbindung

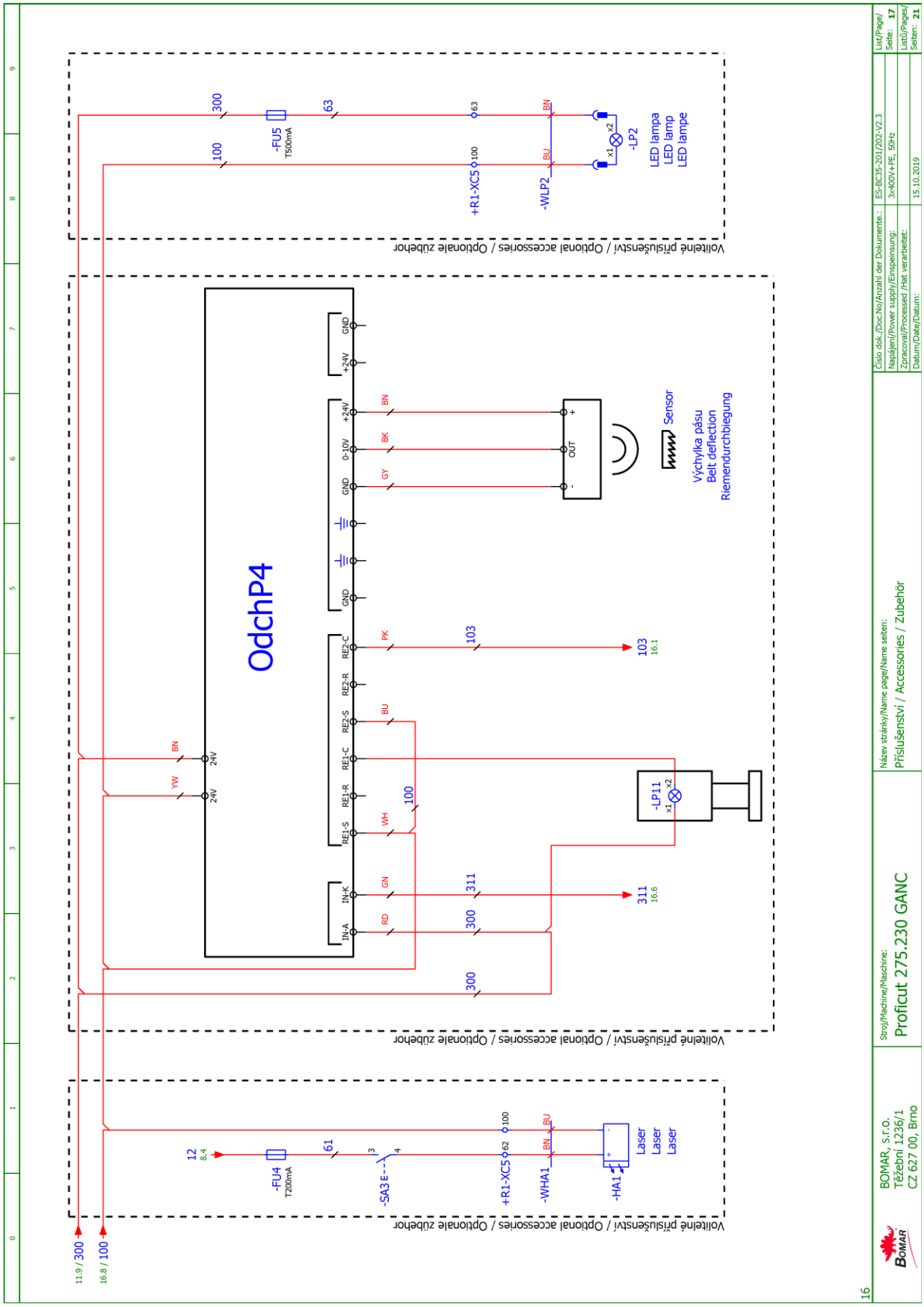
13

BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Proficut 275.230 GANC	Název stránky/Name page/Name seiten: Zapojení snímačů / Conection of sensors / Sensoranschluss	Číslo dok./Doc.No/Anzahl der Dokumente.:	ES-BC35-201/202-V2.3	List/Page/Seite: 14
			Napájení/Power supply/Einspeinsung:	3x400V+PE, 50Hz	
			Zpracoval/Processed /Hat verarbeitet:		Listů/Pages/Seiten: 21
			Datum/Date/Datum:	28.01.2019	

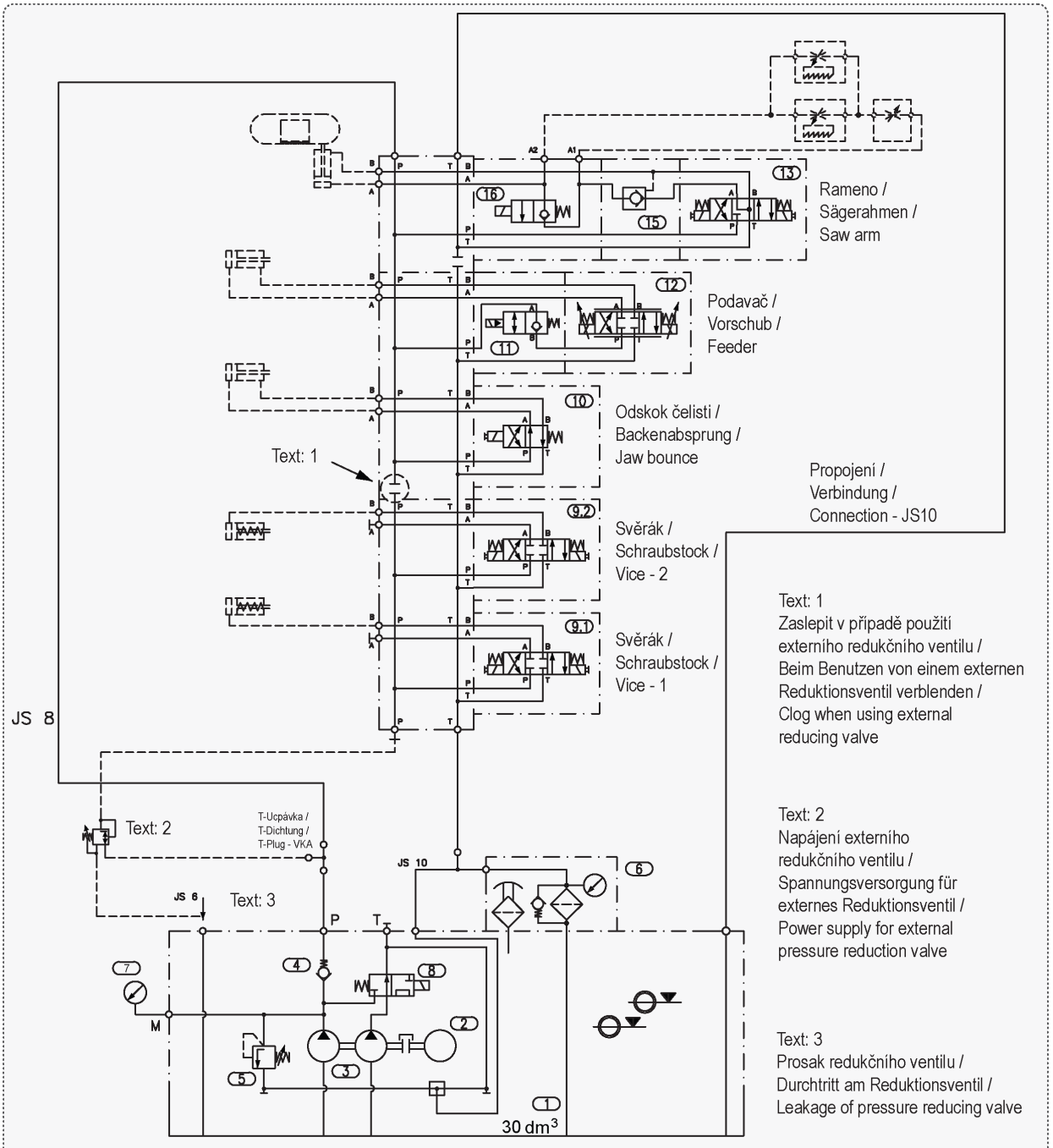

300 / 15.0
100 / 15.0
106 / 16.2
-HL2
-KM12
-KM11
+OP1-SB3
-KM12 /15.8
-KM11 /15.7
-BM1
+R1-XC6
-SB501 /12.2
-WSQ21 4x0,75
-SQ21
-WSQ22 4x0,75
-SQ22
Nouzové zastavení
Emergency stop
Not Aus
Podavač přední kryt
Feeder front cover
Feeder-Frontabdeckung
Kryt pásu
Sawblade cover
Abdeckleiste
+R1-XC3
+R1-XC1
15.9 / 300
15.9 / 100
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Bezpečnostní okruh / Safety circle / Sicherheitsbereich
Číslo dok./Doc.No/Anzahl der Dokumente:
ES-BC35-201/202-V2.3
Napájení/Power supply/Einspeisung:
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
15.10.2019
List/Page/
Seite:
15
Listů/Pages/
Seiten:
21
14



Manual version: 1.13 / March 2021
Manual rev.: 1


OdchP4
Sensor
Výchylka pásu
Belt deflection
Riemendurchbiegung
LED lampa
LED lamp
LED lampe
Laser
Laser
Laser
Volitelné příslušenství / Optional accessories / Optionale zubehör
BOMAR, s.r.o.
Těžební 1236/1
CZ 627 00, Brno
Stroj/Machine/Maschine:
Proficut 275.230 GANC
Název stránky/Name page/Name seiten:
Příslušenství / Accessories / Zubehör
Číslo dok./Doc.No/Anzahl der Dokumente:
ES-BC35-201/202-V2.3
Napájení/Power supply/Einspeisung:
3x400V+PE, 50Hz
Zpracoval/Processed /Hat verarbeitet:
Datum/Date/Datum:
15.10.2019
List/Page/
Seite:
17
Listů/Pages/
Seiten:
21
16

6.2. Hydraulické schéma / Hydraulisches Schema / Hydraulic diagram



Text: 1
Zaslepit v případě použití externího redukčního ventilu / Beim Benutzen von einem externen Reduktionsventil verblenden / Clog when using external reducing valve

Text: 2
Napájení externího redukčního ventilu / Spannungsversorgung für externes Reduktionsventil / Power supply for external pressure reduction valve

Text: 3
Prosak redukčního ventilu / Durchtritt am Reduktionsventil / Leakage of pressure reducing valve

Typ / Type / Type
ProfiCut

Hydraulický agregát / Hydroaggregat / Hydro aggregat
92.001.151 / SMA05-6216/14.0-G-SpM.0-054/02400

Neuvedené světlosti / Unerwähnt Lichtbreite / Unlisted inside diameters
JS6

Výstupní šroubení / Ausgangschraubung / Output screewing
A, B - GE8-PLR-ED (M14x1,5)

Pmax	35 bar
Q	8,4+2,2 dm^3/min^{-1}
n	1420 min^{-1}
P	0,75 kW

Manual version: 1.13 / March 2021
Manual rev.: 1

Poz.	Název položky	Typ	Popis	Poznámka	ks
Pos.	Bezeichnung	Typ	Beschreibug	Hinweis	Menge
Pos.	Item	Type	Description	Note	Pcs.
1	Nádrž / Behälter / Tank	N25	25 dm^3		1
2	Elektromotor / Elektromotor / Electromotor	FCA80B4 / PHE 230 / 400V 50Hz	0,75kW	1,75 A	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	GP1-6,2 / 1,6L-AGCG-CGBPA / GBGBGB-N014	6,2 + 1,6 cm^3 / otáčka / Drehung / revolution		1
4	Jednosměrný ventil / Einwegventil / One-way valve	VJ01-06 / SG002-1			1
5	Přepouštěcí ventil / Bypaßventil / By pass valve	SR1A-A2 / L6S-A	35 bar		1
6	Zpětný filtr / Rückfilter / Return filter	FR043-166 / 0 + DG200-06			1
	Vložka / Einfügen Insert	V3.0510-56	12 µm		1
7	Manometr / Manometer / Manometer	Ø 68, s glycerinem / Ø 68 mit Glycerin / Ø 68 with glycerin 0-60 bar			1
8	Rozvaděč / Verteilungsventil / Distributor	SD2E-A3 / H2D27			1
	Cívka / Spule / Coil	C19B-02400E1-20,8NA+K1			1
9	Rozvaděč / Verteilungsventil / Distributor	RPE3-043Z11 / 02400E1K1		92.101.010	2
10	Rozvaděč / Verteilungsventil / Distributor	RPE3-042R11 / 02400E1K1		92.101.001	1
11	Sedlový rozvaděč / Verteilungsventil / Gabled switchboard	SD3E-A2 / H2L2M9-A			1
	Cívka / Spule / Coil	C19B-02400E1-28,8NA			1
	Připojovací deska / Verbindung Platte / Connecting plate	SB-04A2-1P2-GV-B			1
12	Proporcionální ventil / Proportionalventil / Proportional valve	PRM2-043Z11 / 4M-24E1K1		92.101.053	1
13	Rozvaděč / Verteilungsventil / Distributor	RPE3-043Y11 / 02400E1K1		92.101.005	1
14					
15	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	VJR1-04 / MA3-010		92.103.002	1
16	Sedlový rozvaděč / Verteilungsventil / Gabled switchboard	ROE3-062S2 / 02400E1K1			1

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Manual rev.: 1

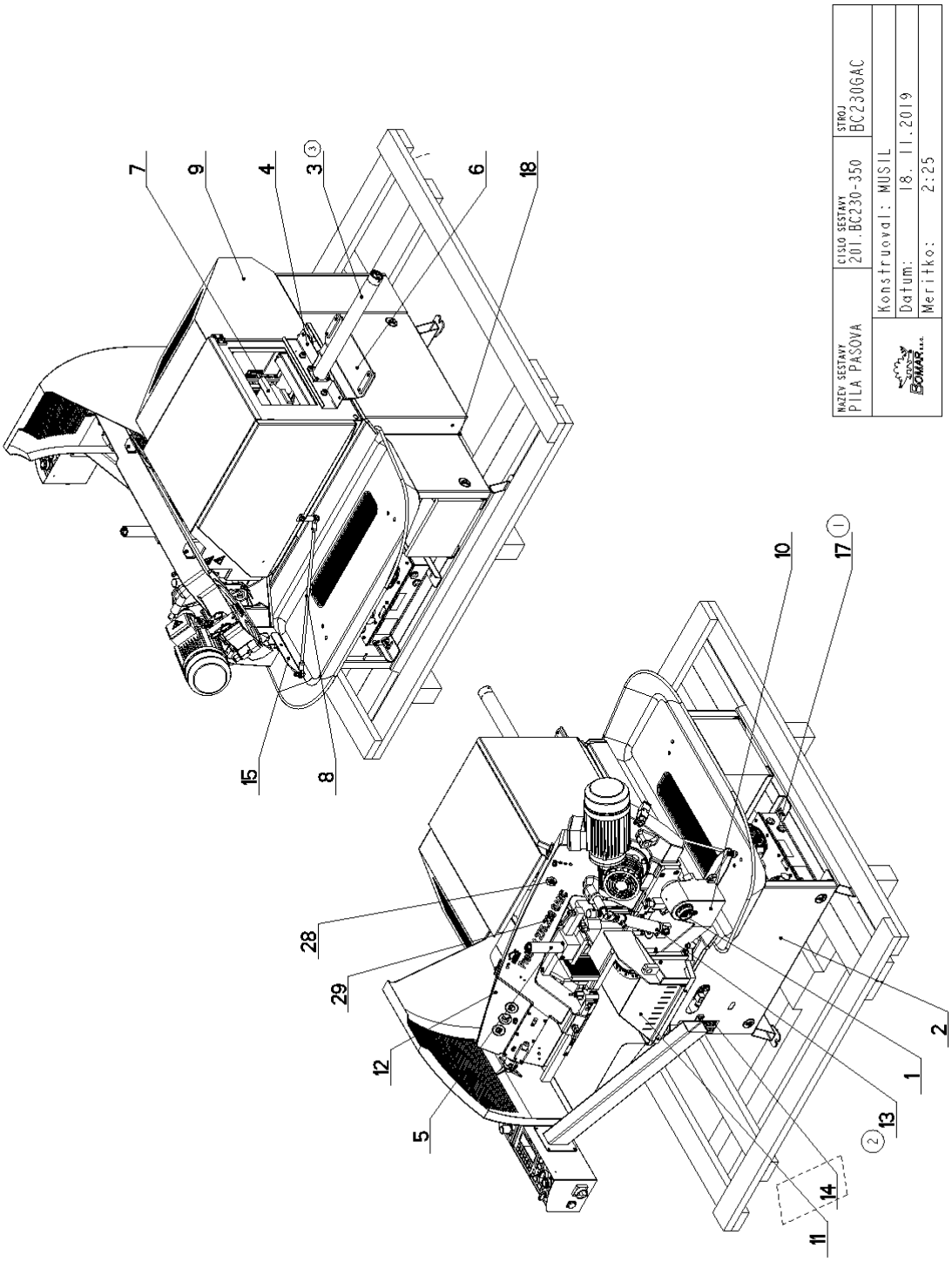
7. Výkresy sestav pro objednání náhradních dílů / Zeichnungen für Bestellung der Ersatzteile / Drawing assemblies for spare parts order

- Při objednávání náhradních dílů vždy uvádějte: typ stroje (např. ProfiCut 275.230 GANC) , výrobní číslo (např. 125) a rok výroby (např. 1999).

- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. ProfiCut 275.230 GANC), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).

- For spare parts order, you must always to allege: type of machine (for example ProfiCut 275.230 GANC), serial number (for example 125, see cover page) and year of construction (for example 1999).

7.1. ProfiCut 275.230 GANC



Manual version: 1.13 / March 2021
Manual rev.: 1

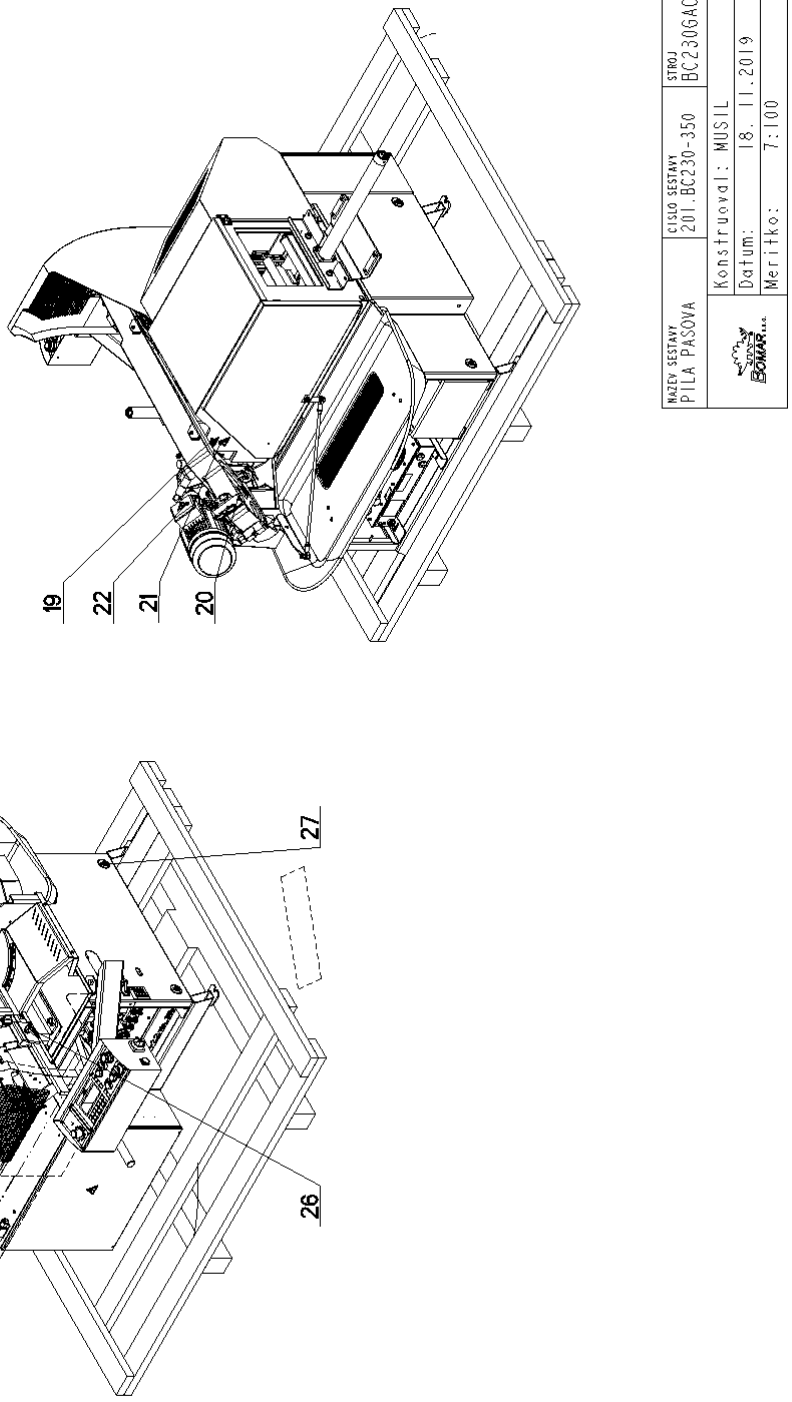
Cislo Sestavy	Ver.	Nazev sestavy
201.BC230-350	3	PILA PASOVA/BAND SAW/BANDSÄGE

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.0614-200	1	ODMEROVANI / MEASURING / GEHRUNGSMESSUNG		1
2	201.BC231-360	3	PODSTAVEC / BASE / UNTERSATZ		1
3	201.BC2311-000 (3)	0	PODAVAC / FEEDER / VORSCHUB		1
4	201.BC2314-200	0	DIL PRIPOJOVACI / ATTACHMENT PART / ANSCHLUSSTEIL		1
5	201.BC2314-240	0	UPINANI HORNI / TOP CLAM / SPANNVORRICHTUNG OBEN		1
6	201.BC2314-310	0	DIL PRIPOJOVACI / ATTACHMENT PART / ANSCHLUSSTEIL		1
7	201.BC2314-320	1	UPINANI HORNI / TOP CLAM / SPANNVORRICHTUNG OBEN		1
8	201.BC2314-325	0	PAKA / LEVER / HEBEL		1
9	201.BC2318-350	1	KRYTY / COVERS / ABDECKUNGEN		1
10	201.BC232-350	2	KONZOLA OTOCNA / TURNABLE CONSOL / DREHKONSOLE		1
11	201.BC233-350	2	SVERAK / VICE / SCHRAUBSTOCK		1
12	201.BC234-350	9	RAMENO / SHOULDER / SÄGERAHMEN		1
13	201.BC237-450 (2)	0	VALEC ZVEDACI / LIFTING CYLINDER / HEBEZYLINDER		1
14	30.BC299-201	0	STITEK TYPOVY / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	1
15	30.ER332-355	0	DRZAK / HOLDER / HALTER	P 4x77	1
16	31.0599-005	0	SAMOLEPKA / STICKER / AUFKLEBER		1
17	92.001.151 (1)	0	AGREGAT HYDRAULICKY / HYDRAULIC GENERATOR / HYDRAULIKAGGREGAT	41919400	1
18	97.001.03B	4	PALETA PREPRAVNI / /	SESTAVA	1
19	99.900.039	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP.STLACENI	1
20	99.900.040	0	SAMOLEPKA / STICKER / AUFKLEBER		1
21	99.900.044		SAMOLEPKA / /		1
22	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		1
23	99.900.047	0	SAMOLEPKA / STICKER / AUFKLEBER		1
24	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		1
25	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		1
26	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		1
27	99.900.06B	0	SAMOLEPKA / STICKER / AUFKLEBER	pouziti vysokozivzneno vazikku	4
28	99.901.032	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNI SAMOLEPKA	1
29	99.901.102	0	SAMOLEPKA / STICKER / AUFKLEBER		1

1.ZRUS. AGREGAT 92.001.136 A NAHR. AGREGATEM 92.001.151. 278/ZM383 13.09.2019 BENDA
2.ZRUSEN VALEC ZVEDACI 201.BC237-200 A NAHR.201.BC237-450. 236/ZM095 26.2.2020 SLEZACKOVA
3.ZRUSEN PODAVAC 201.BC2311-360 A NAHR.201.BC2311-000. 230/ZM308 2.9.2020 MUSIL

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

7.3. ProfiCut 275.230 GANC



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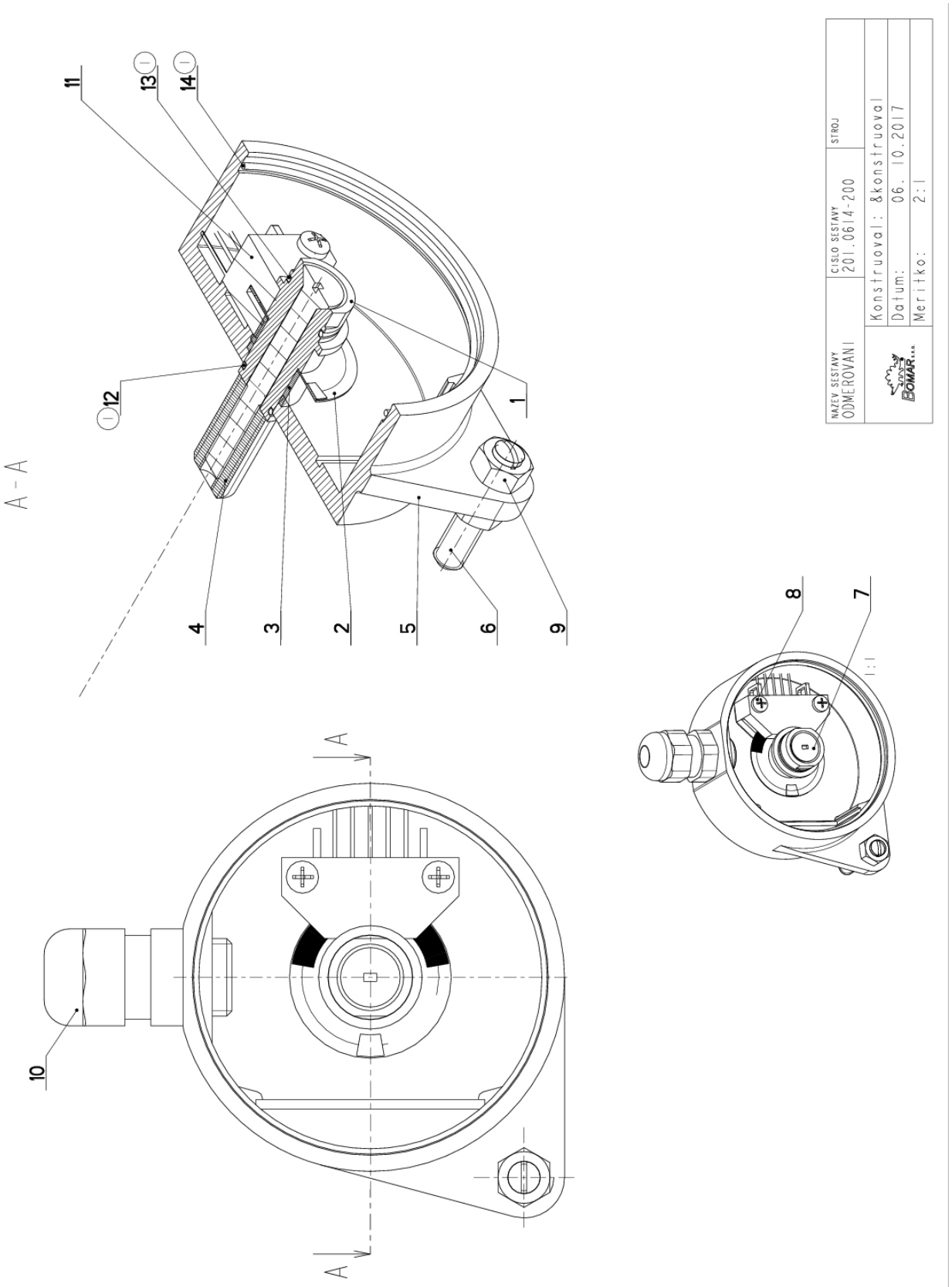
Manual rev.: 1

35	99.900.048	0	SAMOLEPKA / STICKER / AUFKLEBER		1
36	99.900.049	0	SAMOLEPKA / STICKER / AUFKLEBER		1
37	99.900.053	0	SAMOLEPKA / STICKER / AUFKLEBER		1
38	99.900.068	0	SAMOLEPKA / STICKER / AUFKLEBER	pouziti vysokozvizneno vozikku	4
39	99.901.032	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNI SAMOLEPKA	1
40	99.901.104	0	SAMOLEPKA / STICKER / AUFKLEBER		1

1.ZRUS. RAMENO 201.ER254-600 A NAHR. 201.ER254-700. 127/ZM166 25.4.2019 IVICIC
2.ZRUS.VALEC ZVEDACI 201.ER257-310 A NAHR.201.ER257-510. 031/ZM036 27.2.2020 SLEZACKOVA
3.PRID.SOUCASTI Z RAMENE - 30.ER254-305;2x90.150.50.004;2x90.013.27.012;30.ER254-106;2x90.013.27.114;2x90.152.50.001;
91.173.012;2x90.013.9Z.103;2x90.152.50.005;CEP 30.ER254-003. 171/ZM311 29.9.2020 SLEZACKOVA

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

7.5. Odměřování / Measuring / Gehrungsmessung



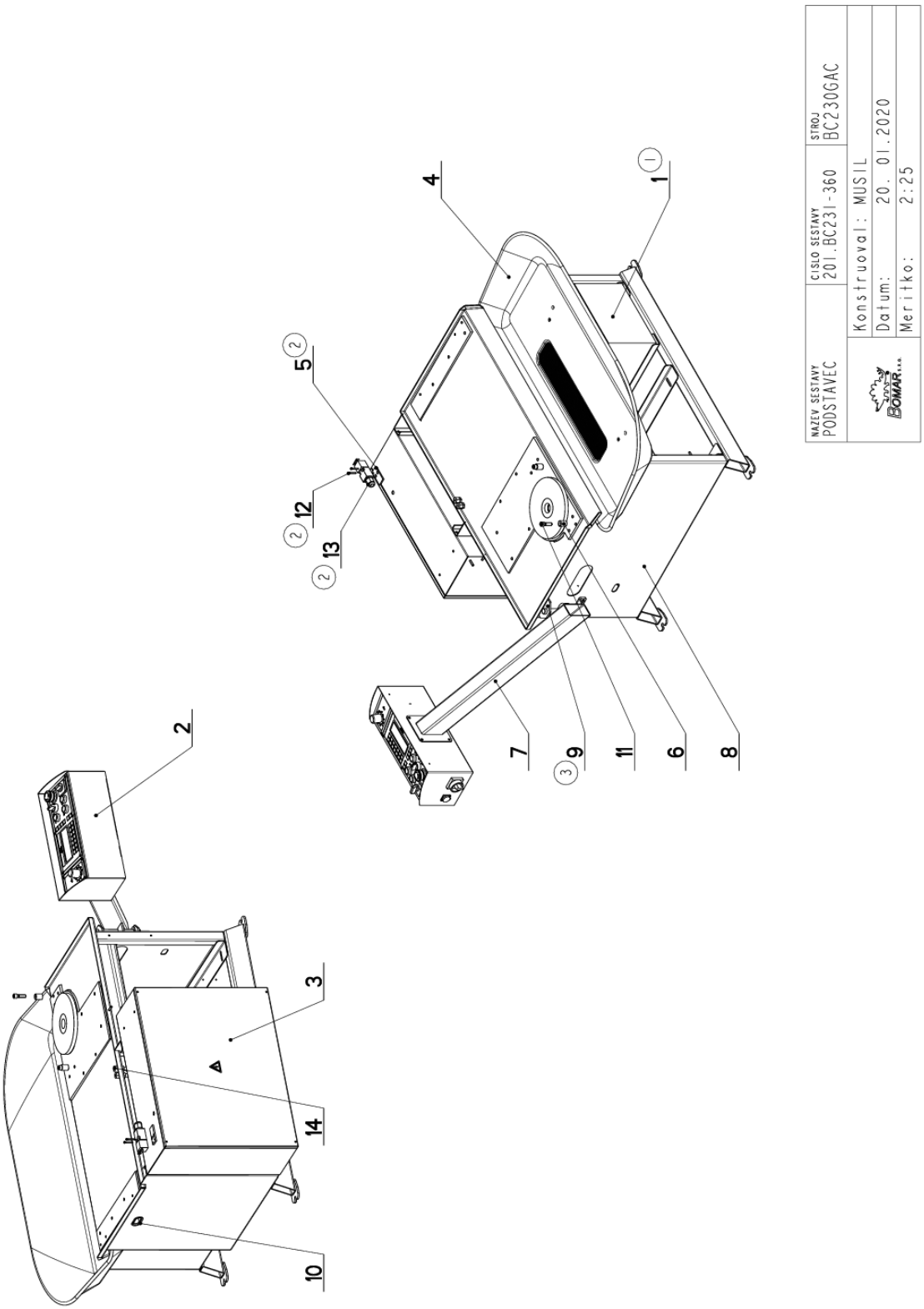
Cislo Sestavy	Ver.	Nazev sestavy
201.0614-200	1	ODMEROVANI/MEASURING/GEHRUNGSMESSUNG

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0614-201	0	CEP / LUG / BOLZEN	d 16	1
2	30.0614-203	0	CLONA / CURTAIN / SCHÜRZE	FOLIE 0.3	1
3	30.0614-204	0	POUZDRO / SLEEVE / BÜCHSE	TR 13x1	1
4	30.0614-208	0	SROUB / BOLT / SCHRAUBE	TYC M10	1
5	31.0614-202	0	KRABICE / BOX / DOSE	VYLISEK-PLAST	1
6	90.002.20.027	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5X25	1
7	90.011.27.019	0	ZAPUSTNY IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M5X40	1
8	90.014.50.004	0	SROUB / BOLT / SCHRAUBE	M2.5x14	2
9	90.100.55.003	0	MATICE / NUT / MUTTER	MATICE _ M5	2
10	91.070.010	0	PRUCHODKA / LEADTHROUGH / DURCHFÜHRUNG	M12x1.5 CERNA	1
11	91.400.043	0	SNIMAC / SENSOR / SENSOR		1
12	96.001.020 (1)	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	9x1	1
13	96.001.021 (1)	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	11x1	1
14	96.002.027 (1)	0	KROUZEK TESNICI / SEAL RING / DICHTUNGSRING	50x1	1

1.PRID. KROUZKY STATICKE 96.001.020 A 96.001.021, KROUZEK TESNICI 96.002.027. ZM028 23.1.2019 SZABARI

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

7.7. Podstavec / Base / Untersatz



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Cislo Sestavy	Ver.	Nazev sestavy
201.BC231-360	3	PODSTAVEC/BASE/UNTERSATZ

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.BC231-100 (1)	1	CHLAZENI / COOLING / KÜHLUNG		1
2	201.BC231-280	2	OVLADACI PANEL / CONTROL PANEL / BEDIENPULT		1
3	201.BC2313-330	0	ROZVADEC ELEKTRO / ELECTRO DISTRIBUTOR / SCHALTSCHRANK		1
4	201.ER251-302	2	VANA / TANK / WANNE		1
5	30.7901-032 (2)	0	DRZAK / HOLDER / HALTER	HR 30x5	1
6	30.BC231-202	0	EXCENTR / CAM / EXZENTER	D 20	2
7	30.BC231-204	0	KONZOLA / CONSOLE / KONSOLE		1
8	30.BC231-361	0	PODSTAVEC / BASE / UNTERSATZ		1
9	30.M201-011 (3)	1	KONZOLA / CONSOLE / KONSOLE	P 6x74	2
10	61.353.003	0	TESNENI / SEALING / DICHTUNG		1
11	90.001.25.049	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X35	2
12	90.013.9Z.104 (2)	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M4x30	2
13	91.173.012 (2)	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		1
14	92.008.101	0	PRUCHODKA / /	P-GSV 08L	2

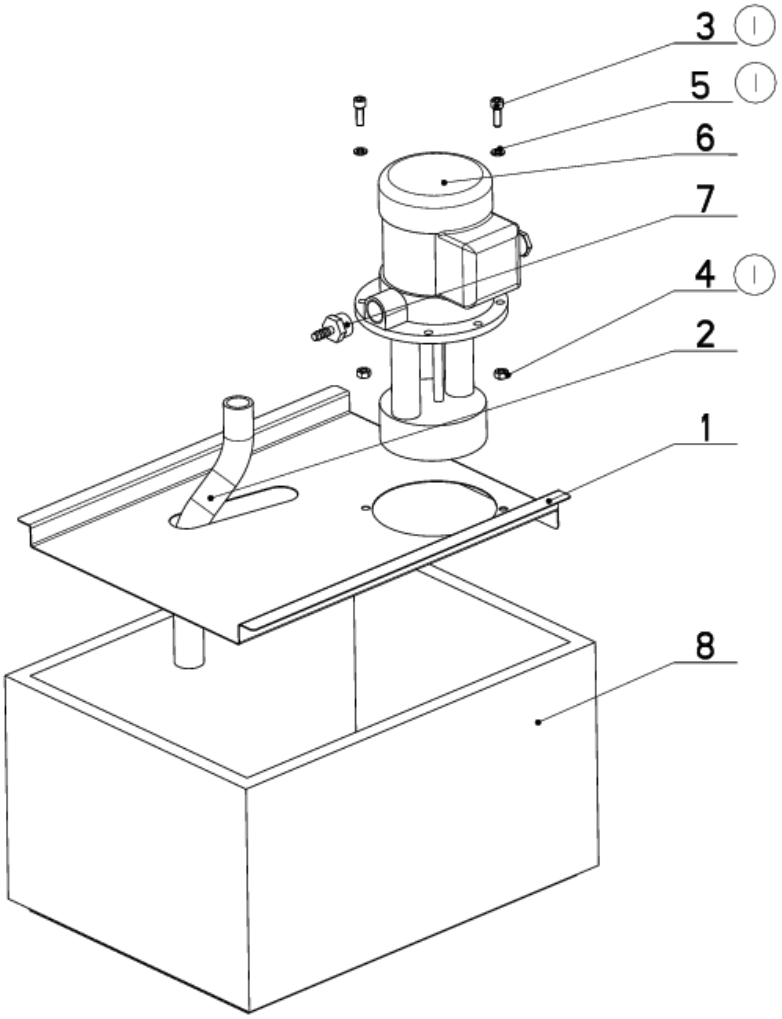
1.ZRUSENO CHLAZENI 201.0506-100 A NAHRAZENO CHLAZENIM 201.BC231-100 90/ZM173 16.5.2018 SZABARI

2.PRIDAN DRZAK 30.7901-032; 2x90.013.9Z.104; ZM. POLOHY 91.173.012; 172/ZM293 23.8.2018 SCERBA

3.ZR.2xKONZOLA 30.BC231-303 A NAHR. 2xKONZOLA 30.M201-011. 023/ZM031 20.01.2020 KOSYK

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

7.9. Chlazení / Cooling / Kühlung



NAZEV SESTAVY	CISLO SESTAVY	STROJ
CHLAZENI	201.BC231-100	ERGO250
	Konstruoval: NEUMANN	
	Datum: 15. 08.2018	
	Meritko: 1:5	

7.10. Kusovník / Piece list / Stückliste - Chlazení / Cooling / Kühlung

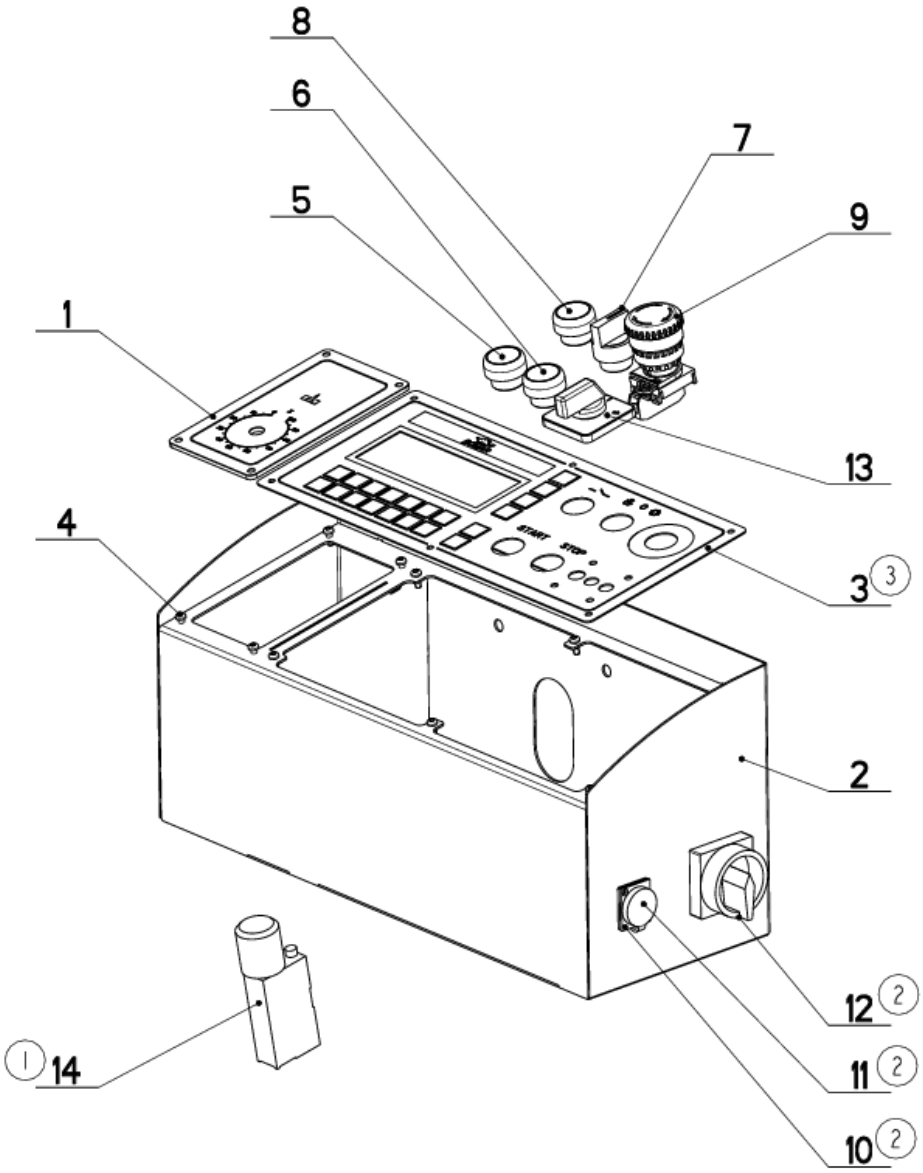
Cislo Sestavy	Ver.	Nazev sestavy
201.BC231-100	1	CHLAZENI/COOLING/KÜHLUNG

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.8006-501	2	VIKO / COVER / DECKEL	P 0,8 x329	1
2	42.020.003	0	HADICE / HOSE / SCHLAUCH	19x3	1
3	90.001.25.076 (1)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X18	2
4	90.100.55.004 (1)	0	MATICE / NUT / MUTTER	MATICE - M6	2
5	90.152.50.001 (1)	0	PODL VEJIROVA ZN / /	6.4	2
6	91.020.032	0	CERPADLO CHLAZENI / COOLING PUMP / KÜHLMITTELPUMPE	230/400V	1
7	94.202.020	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	1/2"-6	1
8	94.403.003	0	NADRZ / CONTAINER / BEHALTER		1

1.ZM. POCTU ZE 4 DILU SROUBENI NA 2: 90.001.25.076, 90.100.55.004, 90.152.50.001. 159/ZM284 15.8.2018 SZABARI

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

7.11. Ovladací panel / Control panel / Bedienpult



NAZEV SESTAVY	CISLO SESTAVY	STROJ
OVLADACI PANEL	201.BC231-280	BC230GAC
	Konstruoval: NEUMANN	
	Datum: 19. 03.2020	
	Meritko: 1:4	

Cislo Sestavy	Ver.	Nazev sestavy
201.BC231-280	3	OVLADACI PANEL/CONTROL PANEL/BEDIENPULT

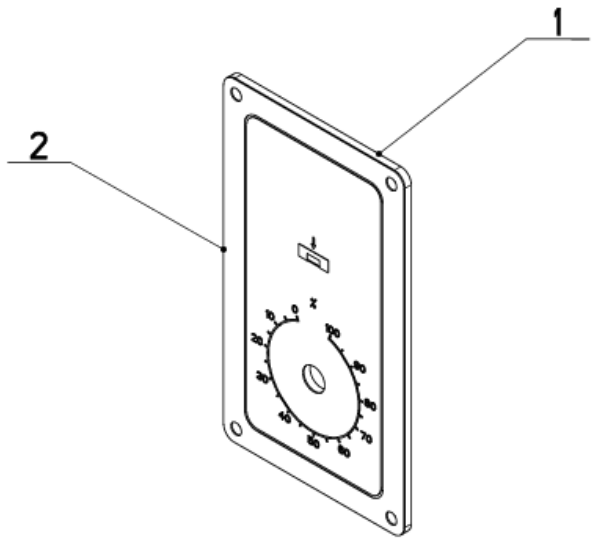
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	281.265	0	DESKA / BOARD / PLATTE		1
2	30.BC231-281	0	NOHA / LEG / STANDER		1
3	31.BC230-257 (3)	0	SAMOLEPKA / ELECTRO PANEL / PANEL	P 3x150	1
4	90.013.27.015	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M4x10	10
5	91.060.031	0	HLAVICE / HEAD / KOPF		1
6	91.060.035	0	HLAVICE / HEAD / KOPF		1
7	91.060.051	0	PREPINAC / SWITCH / UMSCHALTER		1
8	91.060.053	0	HLAVICE / HEAD / KOPF		1
9	91.060.084	0	TOTAL-STOP / TOTAL STOP / TOTALSTOPP	TOTAL STOP	1
10	91.141.110 (2)	0	KONEKTOR / CONNECTOR / STECKVERBINDER	USB	1
11	91.141.111 (2)	0	KONEKTOR / /		1
12	91.170.028 (2)	0	VYPINAC / SWITCH / SCHALTER	VYPINAC	1
13	91.171.006	0	SPINAC VACKOVY / CAM SWITCH / SCHALTER		1
14	92.152.001 (1)	0	VENTIL SKRTICI / CHOKE VALVE / DROSSELVENTIL	VS01-04/R 2.5-O	1

1. ZRUSEN VENTIL 92.153.013 A NAHRAZEN 92.152.001 140/ZM147 13.07.2018 NEDUCHAL
2.ZRUS.KONEKTOR 91.141.093 A NAHR.91.141.110 A 91.141.111;SOUC.91.170.018,91.180.015 A NAHR.91.170.028. 030/ZM040
31.1.2019 SCERBA
3.ZRUS.SAMOLEPKA 31.BC231-257 A NAHR.31.BC230-257. 080/ZM131 19.3.2020 SLEZACKOVA

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

Cislo Sestavy	Ver.	Nazev sestavy
281.265	0	DESKA/BOARD/PLATTE

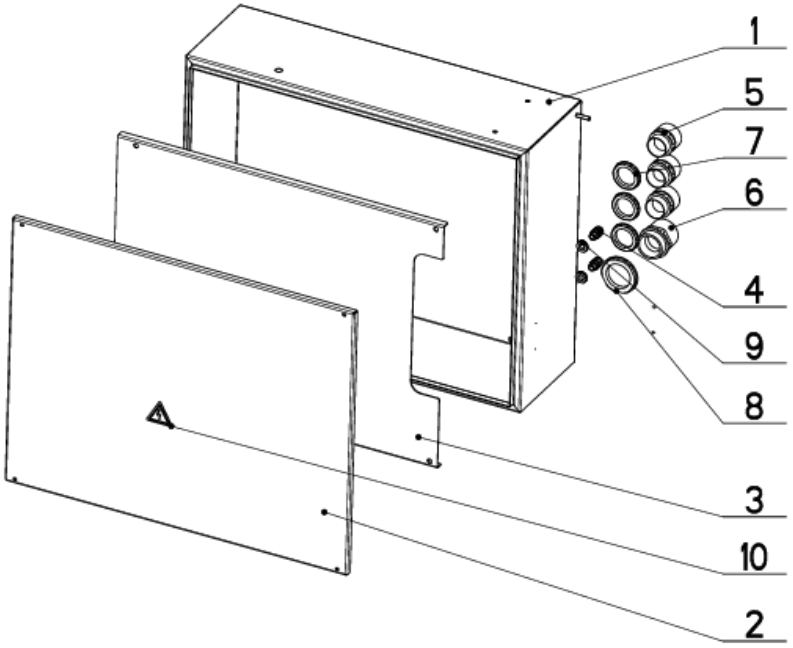
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC231-272	0	PLECH / PLATE / BLECH	P 3x86	1
2	31.BC231-273	0	SAMOLEPKA / STICKER / AUFKLEBER		1



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

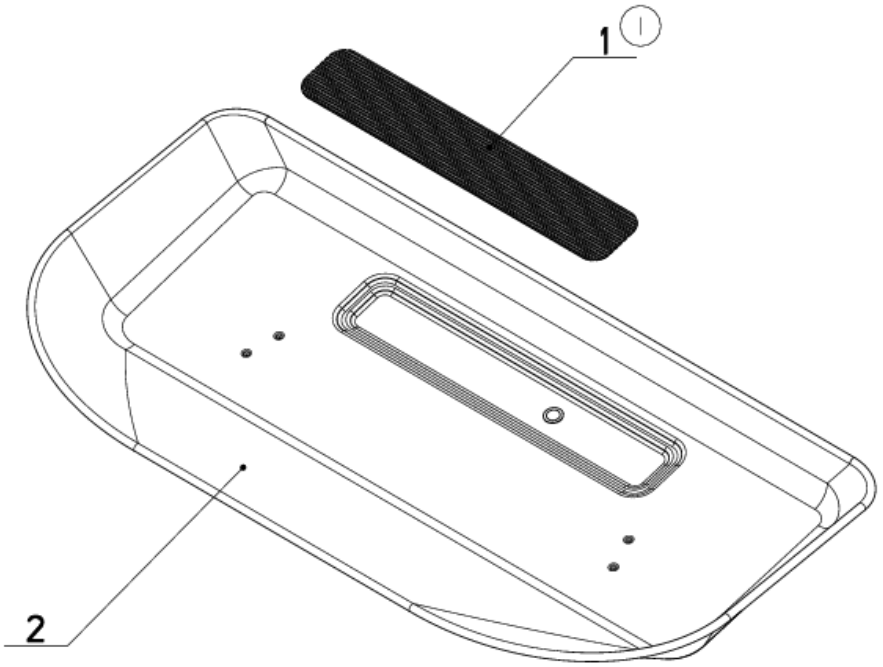
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2313-330	0	ROZVADEC ELEKTRO/ELECTRO DISTRIBUTOR/SCHALTSCHRANK

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC2313-331	0	ROZVADEC ELEKTRO / ELECTRO DISTRIBUTOR / SCHALTSCHRANK		1
2	30.BC2313-332	0	VIKO / COVER / DECKEL		1
3	30.BC2313-333	0	PANEL / PANEL / PANEL	P 1.5x495	1
4	91.070.010	0	PRUCHODKA / LEADTHROUGH / DURCHFÜHRUNG	M12x1.5 CERNA	2
5	91.071.004	0	VYVODKA / BUSHING / TÜLLE	VYVODKA	3
6	91.071.005	0	PRUCHODKA / LEADTHROUGH / DURCHFÜHRUNG		1
7	91.072.007	0	MATICE / NUT / MUTTER	MATICE	3
8	91.072.008	0	MATICE / NUT / MUTTER		1
9	91.072.010	0	MATICE / NUT / MUTTER	M12x1,5	2
10	99.900.045	0	SAMOLEPKA / STICKER / AUFKLEBER		1



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

7.15. Vana / Tank / Wanne



NAZEV SESTAVY	CISLO SESTAVY	STROJ
VANA	201.ER251-302	ERGO.250
	Konstruoval: FABER	
	Datum: 23. 10.2017	
	Meritko: 13:100	

Cislo Sestavy	Ver.	Nazev sestavy
201.ER251-302	2	VANA/TANK/WANNE

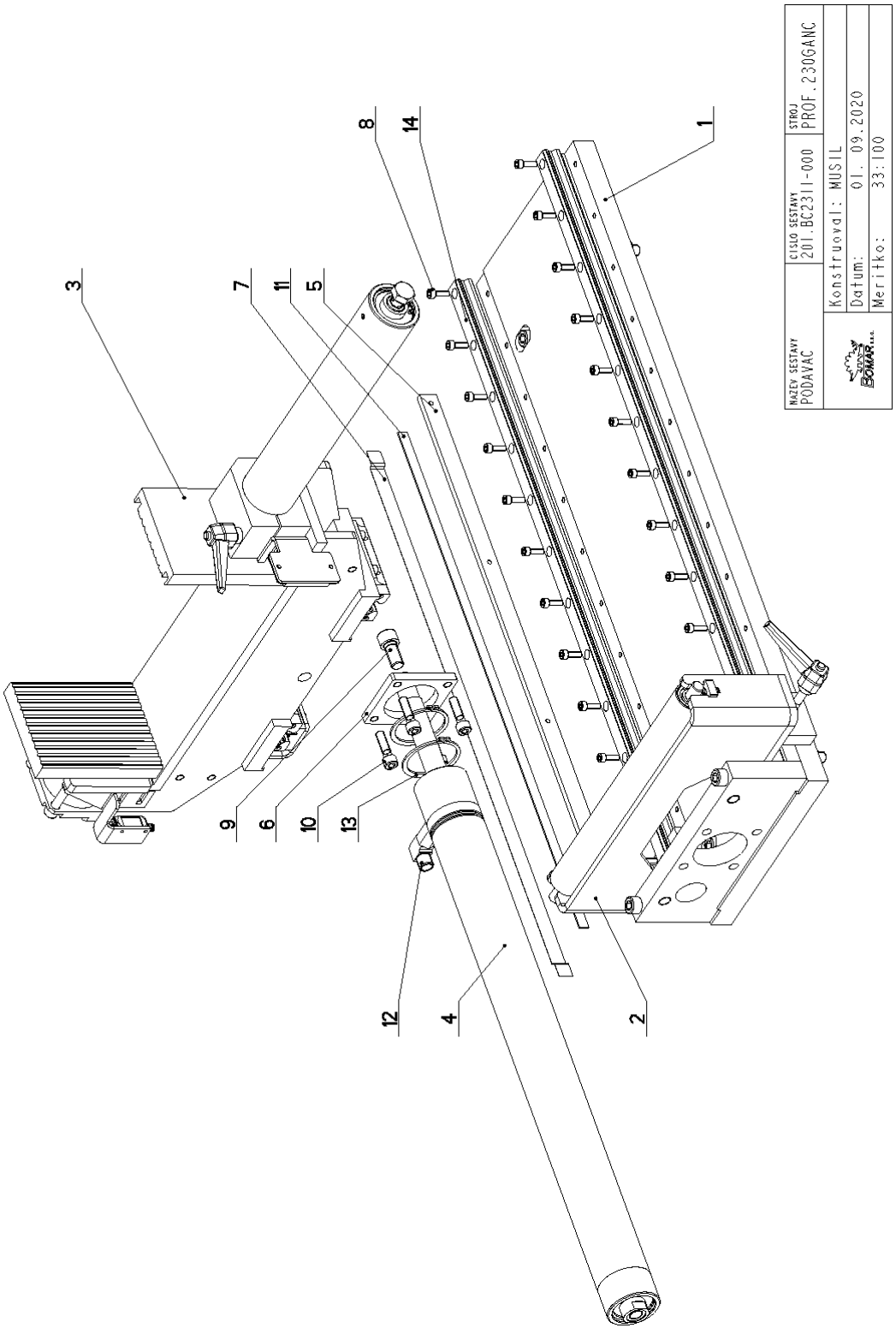
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.ER251-304 (1)	0	SITO / SIEVE / GITTERWERK	P1x95	1
2	30.ER251-305	1	VANA / TANK / WANNE		1

1.PRIDAN KROUZEK 20x2(96.002.046),PODLOZKA 20(90.167.00.001),ZRUS.VANA 31.ER251-302.1 A NAHR.30.ER251-305.
213/ZM177 9.6.2016 SLEZACKOVA

2.ZRUS.TRUBKA 30.ER251-303,PODLOZKA 90.167.00.001,KROUZEK 96.002.046. 265/ZM345 21.10.2016 SLEZACKOVA

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

7.17. Podavač / Feeder / Vorschub



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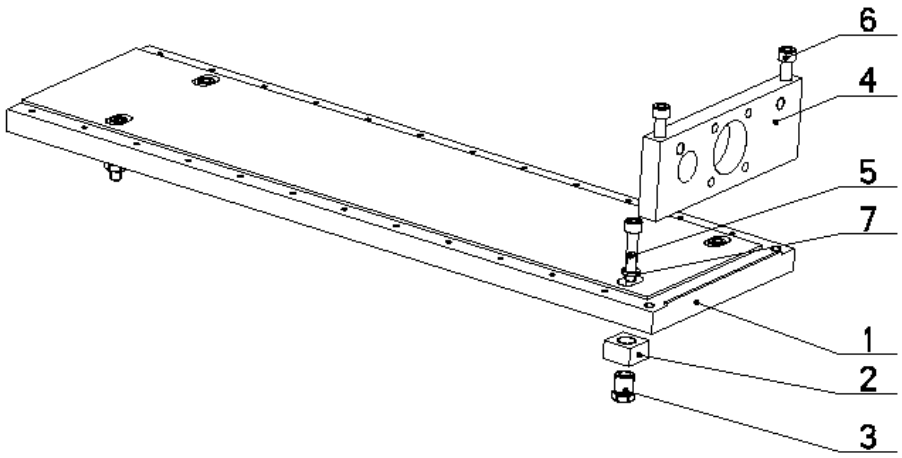
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2311-000	0	PODAVAC/FEEDER/VORSCHUB

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.BC2311-010	0	DESKA / BOARD / PLATTE		1
2	201.BC2311-030	0	VALECEK / CYLINDER / ROLLE		1
3	201.BC2311-350	2	PODAVAC / FEEDER / VORSCHUB		1
4	201.BC2317-200	0	VALEC / ROLLER / ZYLINDER		1
5	30.BC2311-206	0	LISTA / TRIM / LEISTE	ALU PROFIL	1
6	30.D311-109	1	PRILOZKA / STRAP / LASCHE	P 8x70	1
7	55.800.009	0	PLECH / PLATE / BLECH	P 0,3x15	1
8	90.001.25.009	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X16	24
9	90.001.25.057	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x25	1
10	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X30	4
11	91.271.002	0	PASKA MAGNETICKA / MAGNETIC TAPE / MAGNETBAND	ELGO MB20-50	1
12	92.004.001	0	SROUBENI UHLOVE / ANGLE BOLTING / WINKELVERSCHRAUBUNG	37701	1
13	95.800.019	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 52	2
14	99.200.272	0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	MSA20R	2

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

Cislo Sestavy	Ver.	Nazev sestavy
201.BC2311-010	0	DESKA/BOARD/PLATTE

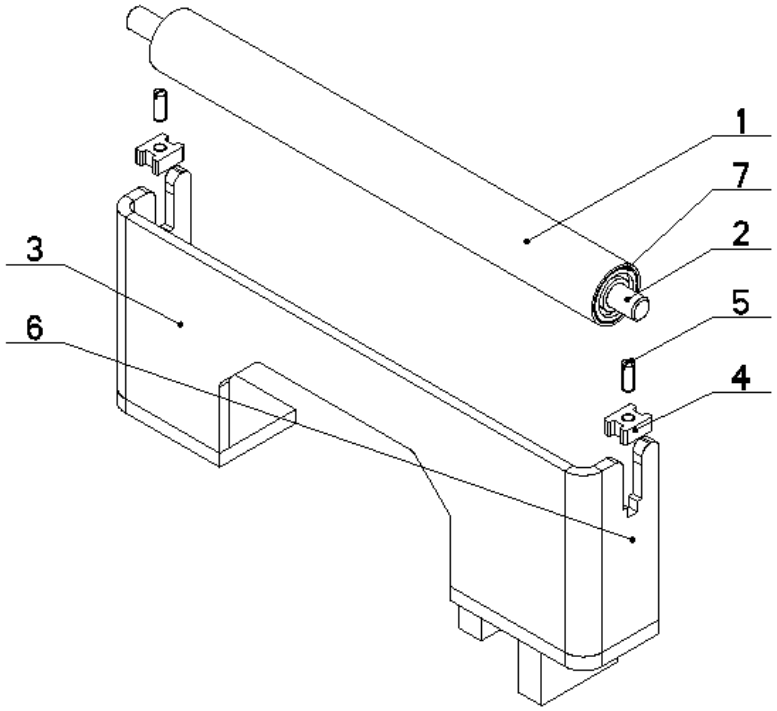
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC2311-011	0	DESKA / BOARD / PLATTE	HR 250x25	1
2	30.BC2311-012	0	MATICE / NUT / MUTTER	HR 30x30	4
3	30.BC2311-013	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	GHR 19	4
4	30.BC2311-015	0	DESKA / BOARD / PLATTE	HR 80x20	1
5	90.001.25.052	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X50	4
6	90.001.25.149	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X90	2
7	90.163.00.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	4



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

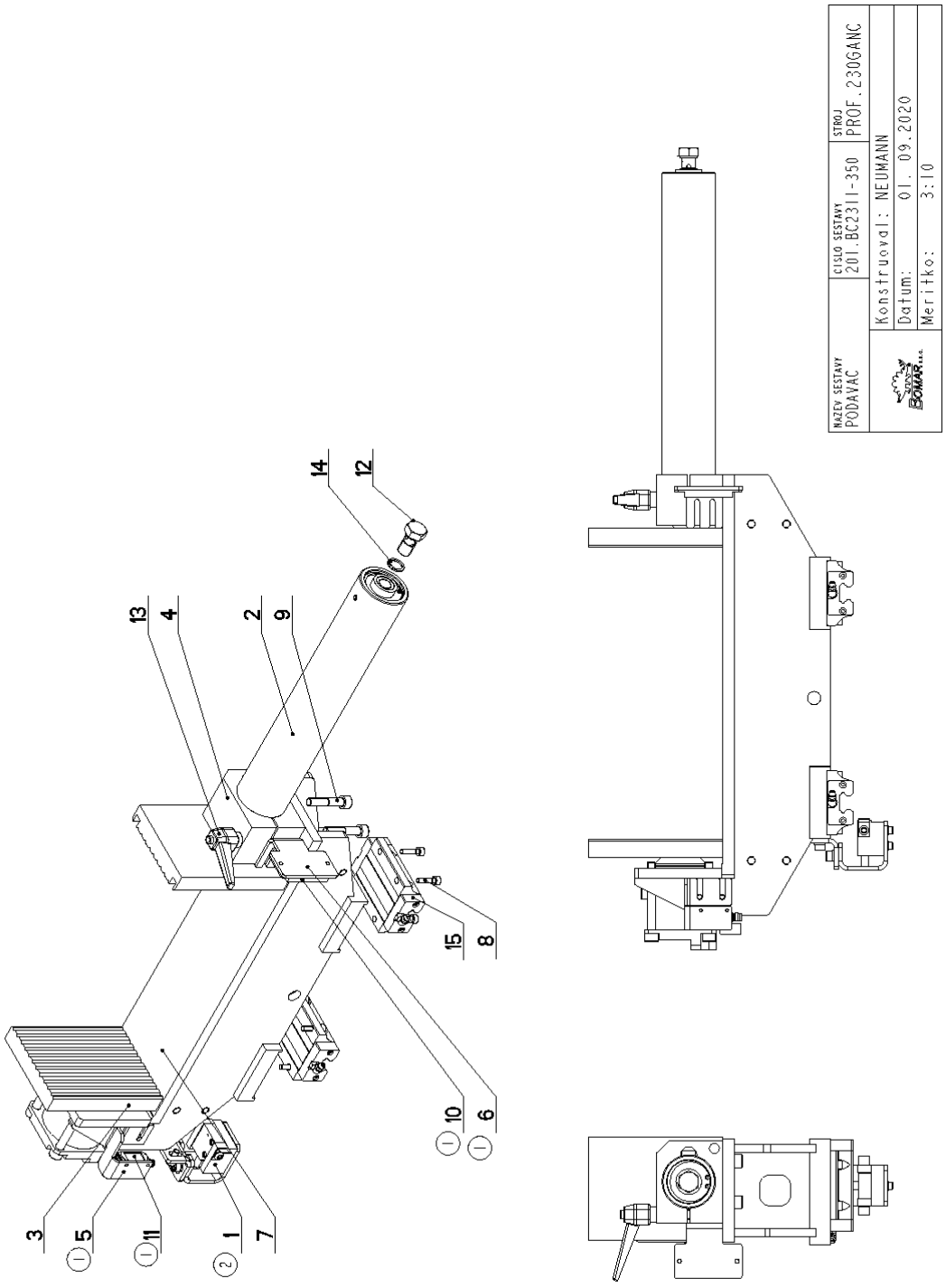
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2311-030	0	VALECEK/CYLINDER/ROLLE

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2311-212	2	VALECEK / CYLINDER / ROLLE	TR 32x3	1
2	30.2311-213	0	TYC / POLE / STANGE	d12	1
3	30.BC2311-031	0	KONZOLA / CONSOLE / KONSOLE		1
4	30.BC2311-332	0	MATICE / NUT / MUTTER	P 8x14.5	2
5	90.002.2D.008	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6X16	2
6	94.008.003	0	PAKA UPINACI / ATTACHMENT LEVER / SPANNHEBEL	M8x40	1
7	95.001.005	0	LOZISKO / BEARING / LAGER	6001 2RS	2



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

7.21. Podavač / Feeder / Vorschub



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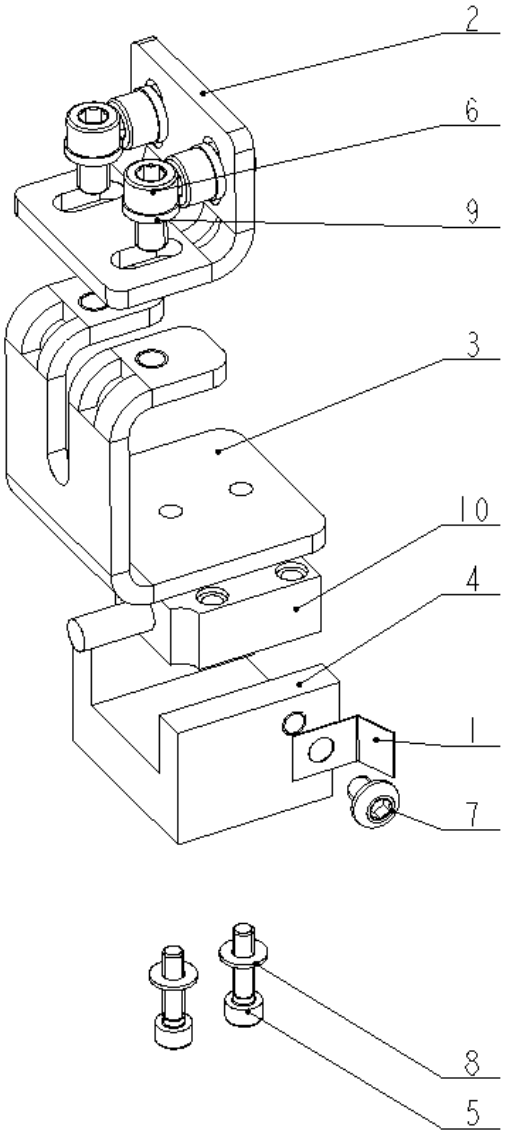
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2311-350	2	PODAVAC/FEEDER/VORSCHUB

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.BC2314-370 (2)	0	ODMEROVANI / MEASURING / GEHRUNGSMESSUNG		1
2	201.BC237-220	1	VALEC UPINACI / FIXING CYLINDER / SPANNZYLINDER		1
3	201.BC237-350	3	VALEC UPINACI / FIXING CYLINDER / SPANNZYLINDER		1
4	30.BC2311-205	0	DRZAK / HOLDER / HALTER	HR 80x50	1
5	30.BC2311-342 (1)	0	DRZAK / HOLDER / HALTER	P 3x50	1
6	30.BC2311-343 (1)	0	DRZAK / HOLDER / HALTER	P 3x66	1
7	30.BC2311-351	1	PODAVAC / FEEDER / VORSCHUB		1
8	90.001.25.010	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X20	8
9	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X40	2
10	91.175.015 (1)	0	ODRAZKA / STUB / RUCKSTRAHLER	E20452	1
11	91.401.032 (1)	0	ZAVORA OPTICKA / /	06P203	1
12	93.010.002	0	SROUB / BOLT / SCHRAUBE	G1/4"	1
13	94.008.006	0	PAKA UPINACI / ATTACHMENT LEVER / SPANNHEBEL	M10	1
14	96.082.002	0	TESNENI / SEAL RING / DICHTUNGSRING	13/17x1.5 CU	2
15	99.201.062	0	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFUHRUNGSWAGEN	MSA20LE	2

1. ZRUSENO ODMEROVANI BC2311-340 A NAHRAZENO ZAVOROU 91.401.032, ODRAZKOU 91.175.015 A DRZAKY 30.BC2311-342 A 30.BC2311-343. 294/ZM40130.09.2019 BENDA
2.ZRUS.SOUCASTI 30.1504-017,30.BC2311-214,30.XBWWI-DD9,90.150.50.003,90.D13.27.003,90.013.27.DD1,90.150.50.002,91.27D.007 A NAHR.SESTAVOU ODMEROVANI 201.BC2314-370,
ZM.POLOHY ODMEROVANI PODAVACE .230/ZM308 1.9.2020 SLEZACKOVA

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

7.23. Odměřování / Measuring / Gehrungsmessung



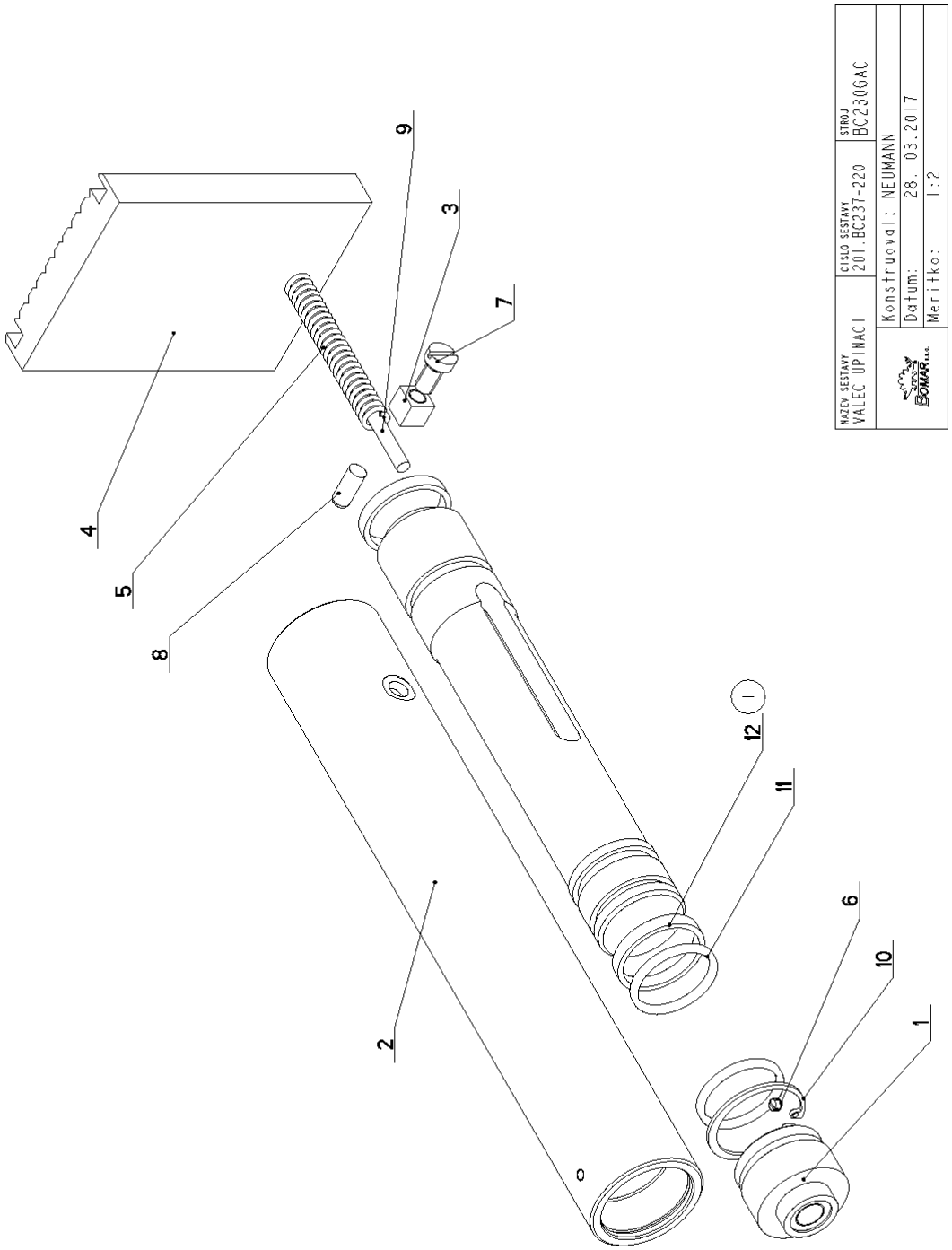
NAZEV SESTAVY	CISLO SESTAVY	STROJ
ODMEROVANI	201.BC2314-370	PROF.230GANC
	Konstruoval: MUSIL	
	Datum: 01. 07.2020	
	Meritko: 1:1	

Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-370	0	ODMEROVANI/MEASURING/GEHRUNGSMESSUNG

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.1504-017	0	STERAC / WIPER / ABSTREIFER	P 0,3x11	2
2	30.BC2314-362	0	DRZAK / HOLDER / HALTER	P4x40	1
3	30.BC2314-371	0	DRZAK / HOLDER / HALTER	P4x40	1
4	30.V302-131	0	DRZAK / HOLDER / HALTER	HR 25x35	1
5	90.001.25.004	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4X16	2
6	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	4
7	90.013.27.002	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M5X6	2
8	90.150.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 4,3	2
9	90.163.00.012	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	4
10	92.270.018	0	SNIMAC MAGNET. / MAGNETIC SENSOR / MAGNETSENSOR	ELGO	1

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

7.25. Válec upínací / Fixing cylinder / Spannzylinder



Manual version: 1.13 / March 2021
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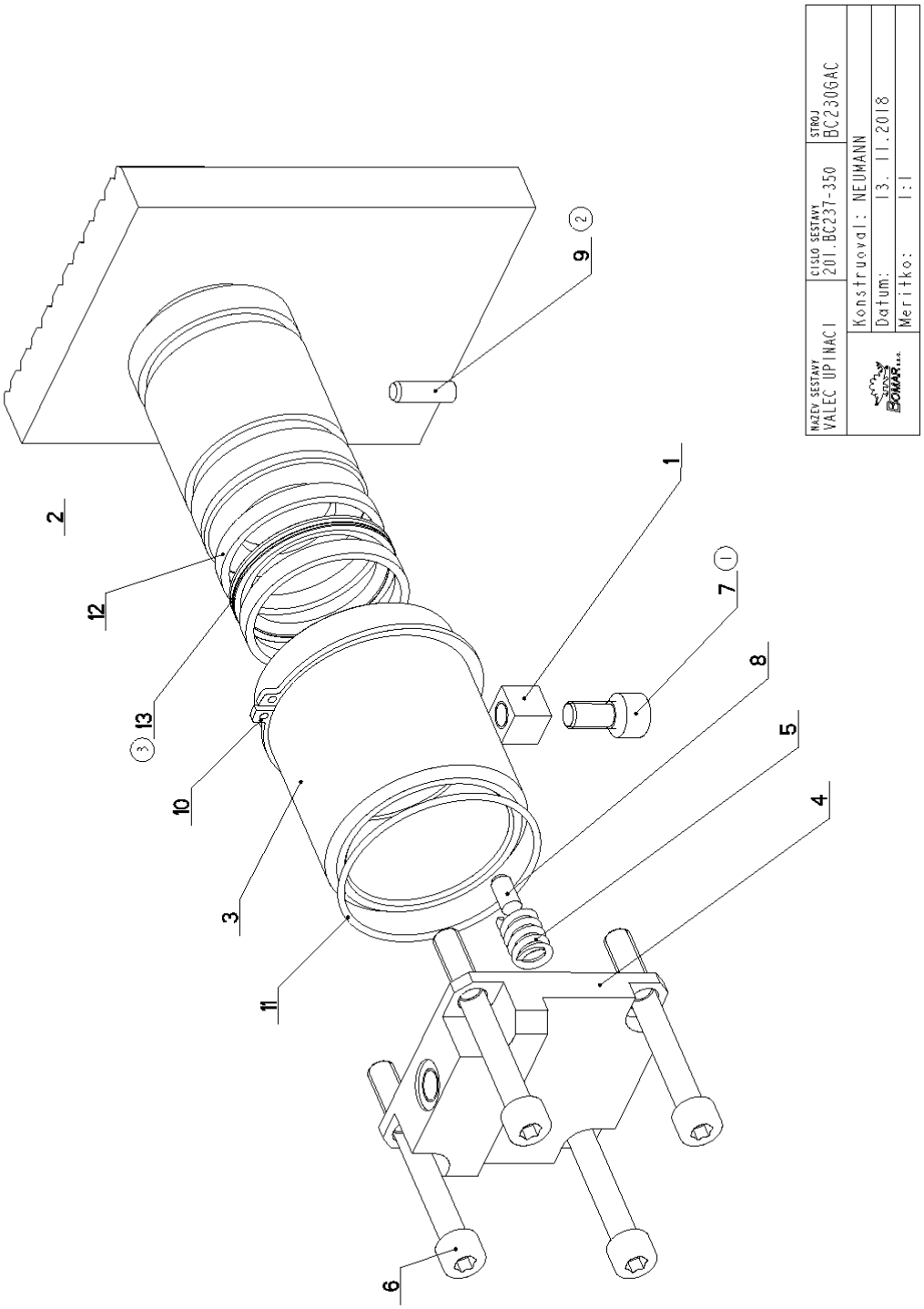
Cislo Sestavy	Ver.	Nazev sestavy
201.BC237-220	1	VALEC UPINACI/FIXING CYLINDER/SPANNZYLINDER

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2107-203	0	VIKO / COVER / DECKEL	d 45	1
2	30.2107-204	1	VALEC / ROLLER / ZYLINDER	TR 52/42	1
3	30.2107-205	0	DORAZ / STOP PIECE / ANSCHLAG	HR12	1
4	30.BC237-221	0	CELIST / JAW / BACKE		1
5	31.2107-206	0	PRUZINA / SPRING / FEDER	2x12x84x25,5	1
6	90.003.20.001	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5X8	1
7	90.012.50.012	0	SR. S VALC. HLAV. / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M8X16	1
8	90.301.07.008	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 8X20	1
9	90.301.07.017	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 6X45	1
10	95.801.006	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 42	1
11	96.002.017	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	34x3 NBR 70SH	2
12	96.084.010		KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500400-T47	2

1.ZRUS. VODICI KROUZ. 1x95.780.001 A NAHRAZ. VOD. KROUZ. 2x96.084.010 077/126. 28.3.2017 VLACH

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

7.27. Válec upínací / Fixing cylinder / Spannzylinder



Manual version: 1.13 / March 2021
Manual rev.: 1

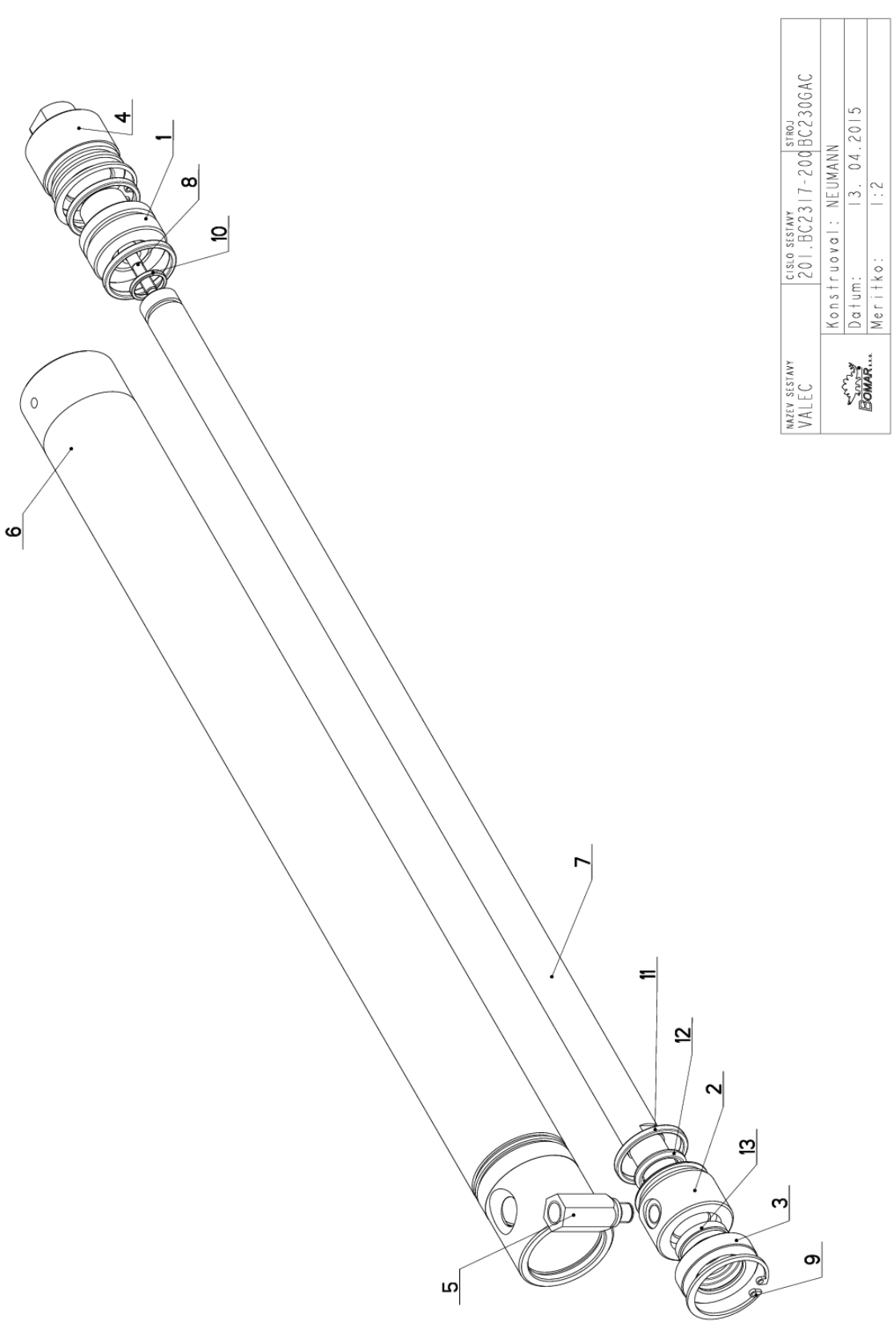
Cislo Sestavy	Ver.	Nazev sestavy
201.BC237-350	3	VALEC UPINACI/FIXING CYLINDER/SPANNZYLINDER

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2107-205	1	DORAZ / STOP PIECE / ANSCHLAG	HR12	1
2	30.BC237-351	1	CELIST / JAW / BACKE		1
3	30.BC237-354	3	VALEC / ROLLER / ZYLINDER	TR 62/50	1
4	30.BC237-355	0	VIKO / COVER / DECKEL	TYC 70x20	1
5	31.1509-204	0	PRUZINA / SPRING / FEDER	2x12x17x5	1
6	90.001.25.095	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X70	4
7	90.001.25.216 (1)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	1
8	90.301.02.003	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 6X12	1
9	90.301.02.020 (2)	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 6X20	1
10	95.800.021	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 62	1
11	96.001.030	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	58x2	1
12	96.084.001	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500500-T47	2
13	96.900.001 (3)	0	TESNENI KOMBINOVANE / COMBINATION SEALING / KOMBIDICHTUNG	PW4200500-Z20N	1

1.ZRUSEN SROUB M8x16 Zn(90.012.50.012) A NAHRAZEN M8x16 CERNY(90.001.25.216).95/ZM192 22.6.2018 SLEZACKOVA
2.PRIDAN KOLIK 6x20 90.301.02.020. 143/ZM249 16.7.2018 SZBARI
3.ZRUS. TESNENI 96.020.005 A NAHR. TESNENIM 96.900.001. 249/ZM421 20.11.2018 SZABARI

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

7.29. Válec / Cylinder / Zylinder



Manual version: 1.13 / March 2021
Manual rev.: 1

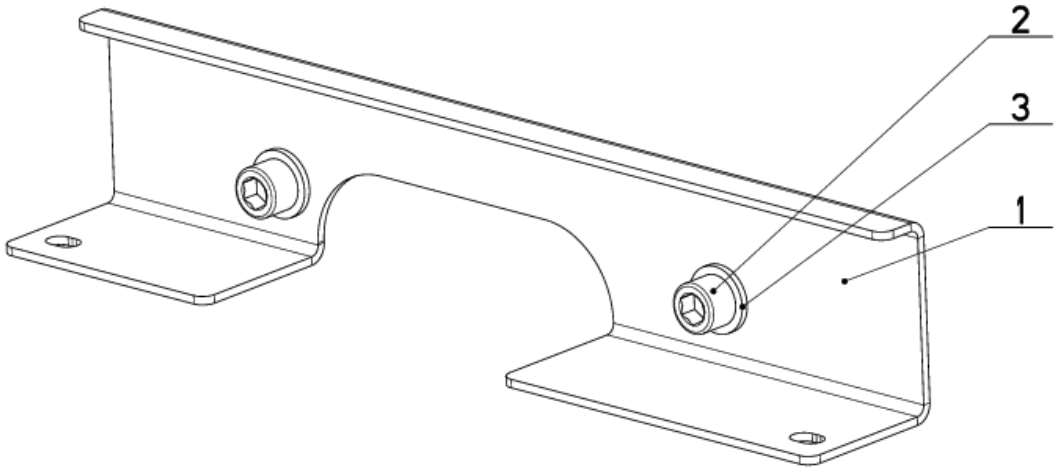
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2317-200	0	VALEC/ROLLER/ZYLINDER

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2107-001	0	PIST / PISTON / KOLBEN	d 45	1
2	30.2107-002	0	PRIRUBA / FLANGE / FLANSCHE	TYC 45	1
3	30.2107-003	0	VIKO / COVER / DECKEL	d 45	1
4	30.2107-004	0	VIKO / COVER / DECKEL	d45	1
5	30.2111-011	1	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	TYC 17	1
6	30.BC2317-201	0	VALEC / ROLLER / ZYLINDER	TR 52/40H8	1
7	30.BC2317-202	0	PISTNICE / PISTON ROD / KOLBENSTANGE	d 20	1
8	90.001.25.019	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X25	1
9	95.801.006	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 42	2
10	96.002.007	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	16x2 NBR 70SH	1
11	96.002.017	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	34x3 NBR 70SH	3
12	96.041.002	0	TESNENI / SEALING / DICHTUNG	20/28x4	1
13	96.060.002	0	KROUZEK STIRACI / SCRAPER RING / ABSTREIFRING	KROUZEK STIRACI 20	1

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

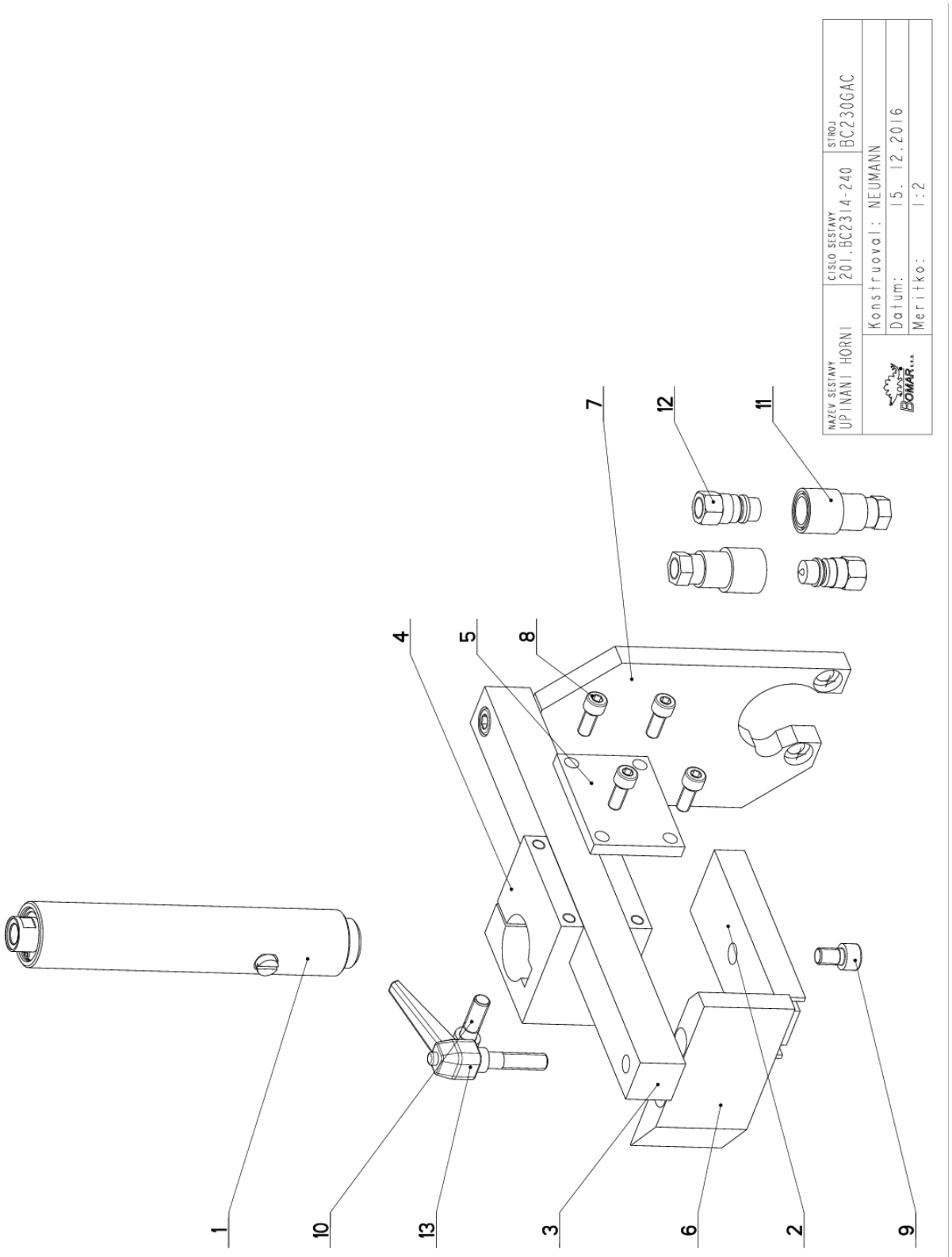
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-200	0	DIL PRIPOJOVACI/ATTACHMENT PART/ANSCHLUSSTEIL

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC2314-201	0	DIL PRIPOJOVACI / ATTACHMENT PART / ANSCHLUSSTEIL	P 3x140,2	1
2	90.001.25.056	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x20	2
3	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	2



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

7.32. Upínání horní / Top clam / Spannvorrichtung oben



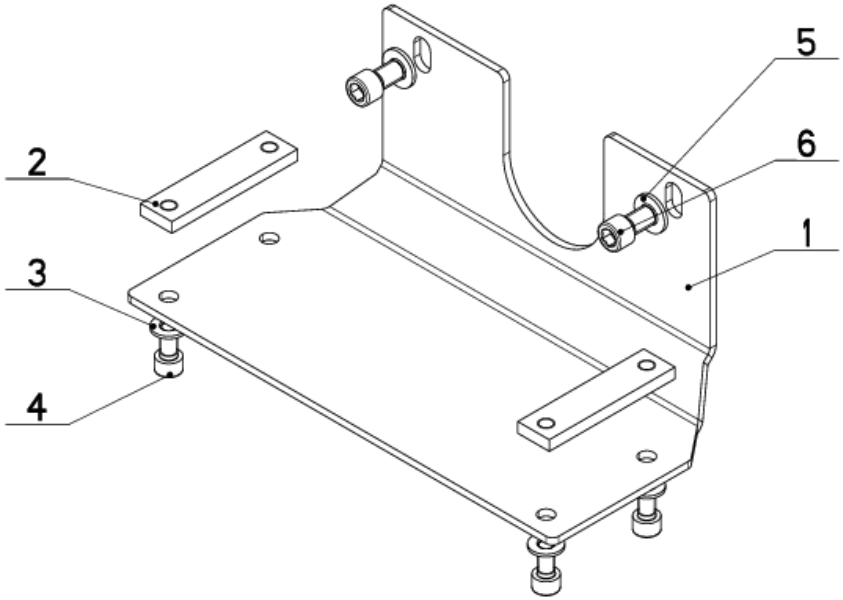
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-240	0	UPINANI HORNI/TOP CLAM/SPANNVORRICHTUNG OBEN

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.2114-330	0	VALEC HOR. UP. / /		1
2	30.2314-006	0	CELIST UPINACE / /	TYC 50x20	1
3	30.BC2314-241	0	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	HR 30x30	1
4	30.BC2314-243	0	KOSTKA / CUBE / WÜRFEL	HR 80x80	1
5	30.BC2314-244	0	DESKA / BOARD / PLATTE	P 8x60	1
6	30.BC2314-248	0	NASTAVEC CELISTI / /	TYC 60x20	1
7	30.BC2314-249	0	DESKA / BOARD / PLATTE	P 15x115	1
8	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	4
9	90.001.25.045	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X16	1
10	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X30	2
11	92.060.007	0	RYCHLOSPOJKA / QUICK CONNECT / SCHNELLKUPPLUNG	6 G1/4"	2
12	92.060.008	0	RYCHLOSPOJKA / QUICK CONNECT / SCHNELLKUPPLUNG	6 G1/4"	2
13	94.008.013	0	PAKA UPINACI / ATTACHMENT LEVER / SPANNHEBEL	M10	1

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

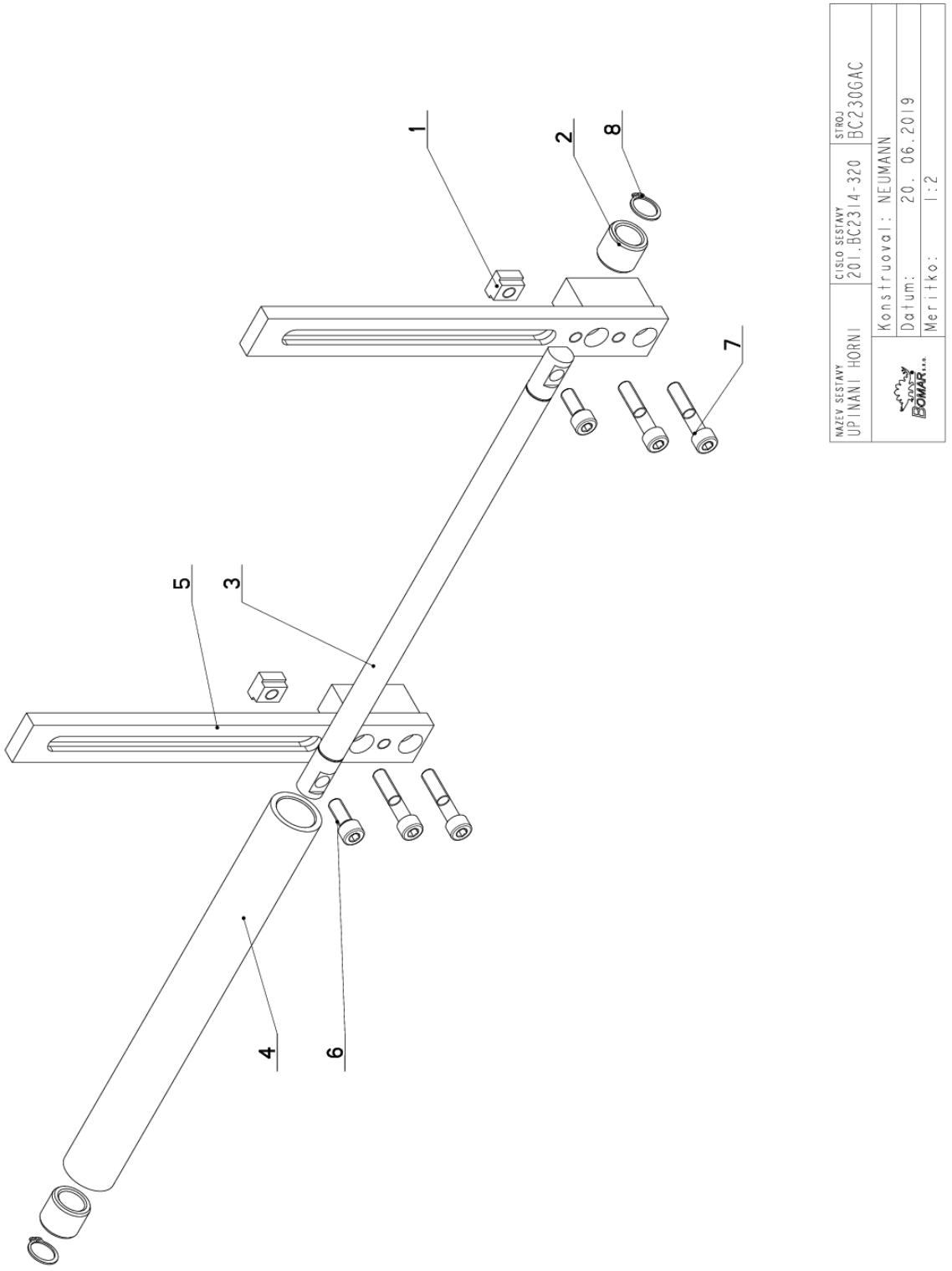
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-310	0	DIL PRIPOJOVACI/ATTACHMENT PART/ANSCHLUSSTEIL

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC2314-311	0	DIL PRIPOJOVACI / ATTACHMENT PART / ANSCHLUSSTEIL	P 5x286	1
2	30.X104-603	2	PRILOZKA / STRAP / LASCHE	HR 25x8	2
3	90.150.50.006	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 10,5	4
4	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X20	4
5	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	2
6	90.001.25.056	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x20	2



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

7.35. Upínání horní / Top clam / Spannvorrichtung oben



Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-320	1	UPINANI HORNI/TOP CLAM/SPANNVORRICHTUNG OBEN

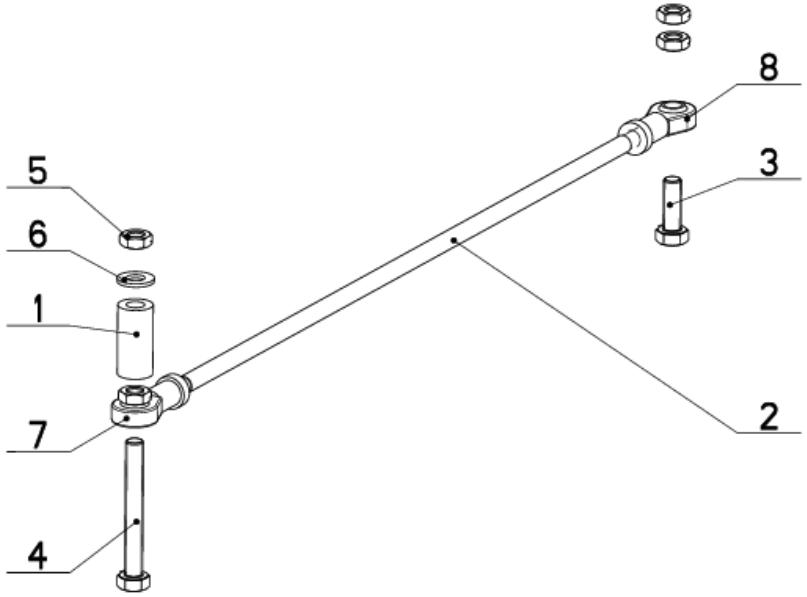
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2114-308	1	MATICE / NUT / MUTTER	HR 16x10	2
2	30.2114-311	0	POUZDRO / SLEEVE / BUCHSE	d 25	2
3	30.2314-001	0	TYC / /	d 16h11	1
4	30.2314-002	0	VALECEK / /	TR32x5	1
5	30.BC2314-319	1	DRZAK / HOLDER / HALTER		2
6	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	2
7	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X40	4
8	95.800.007	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 16	2

1.ZRUS. LISTA 30.BC2314-318, ZRUS. SROUB M6x20 90.001.25.018. 196/ZM267 20.6.2019 SZABARI

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

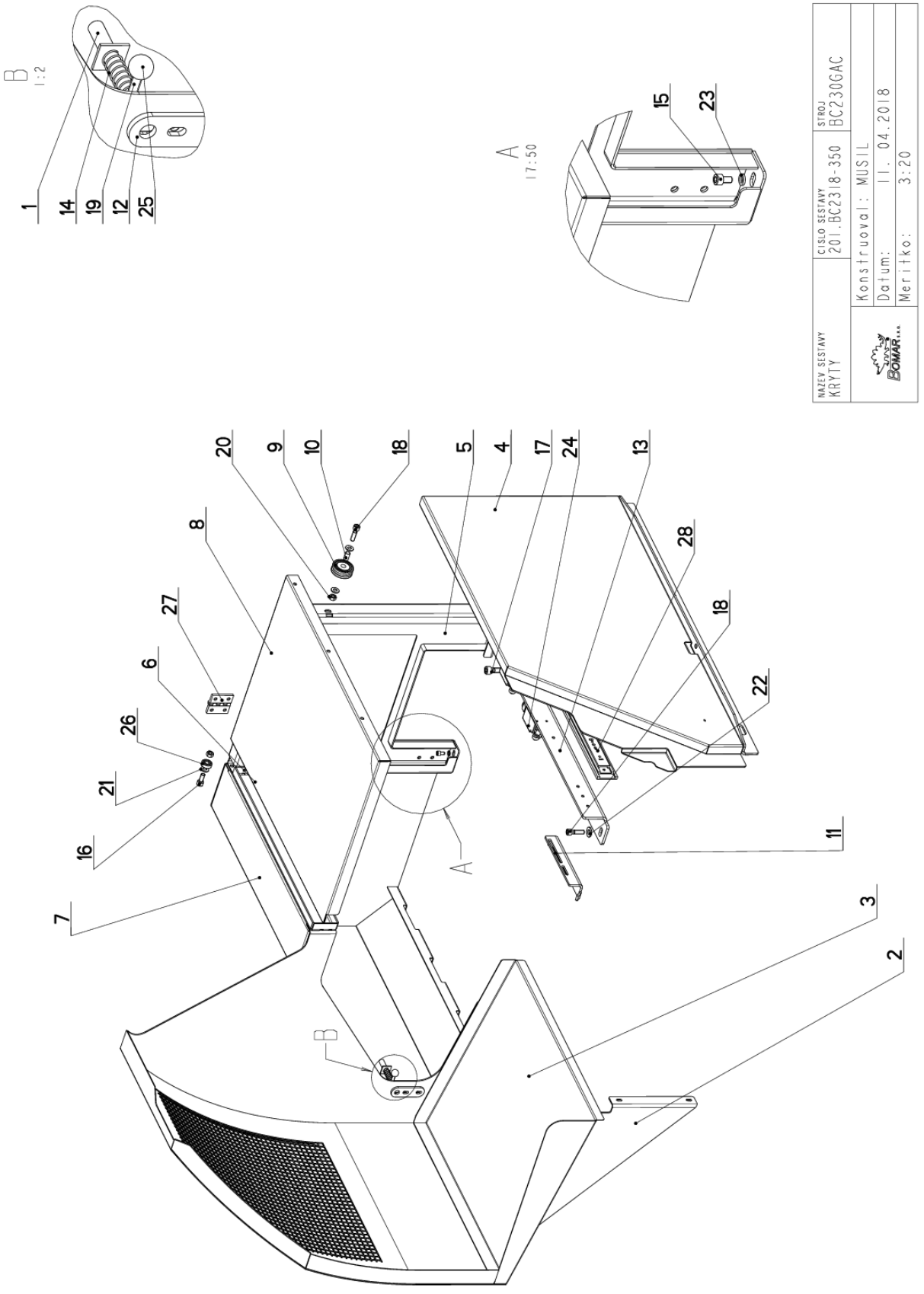
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2314-325	0	PAKA/LEVER/HEBEL

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.BC2314-324	0	TYC / POLE / STANGE	TR 20x5	1
2	30.BC2314-326	0	TYC / POLE / STANGE	D 10	1
3	90.005.55.025	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X30	1
4	90.005.55.080	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X80	1
5	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	4
6	90.150.50.006	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 10,5	1
7	95.170.001	0	HLAVICE / HEAD / KOPF	M10x1,25	1
8	95.170.007	0	HLAVICE / HEAD / KOPF	M10-LEVY	1



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

7.38. Kryty / Covers / Abdeckungen



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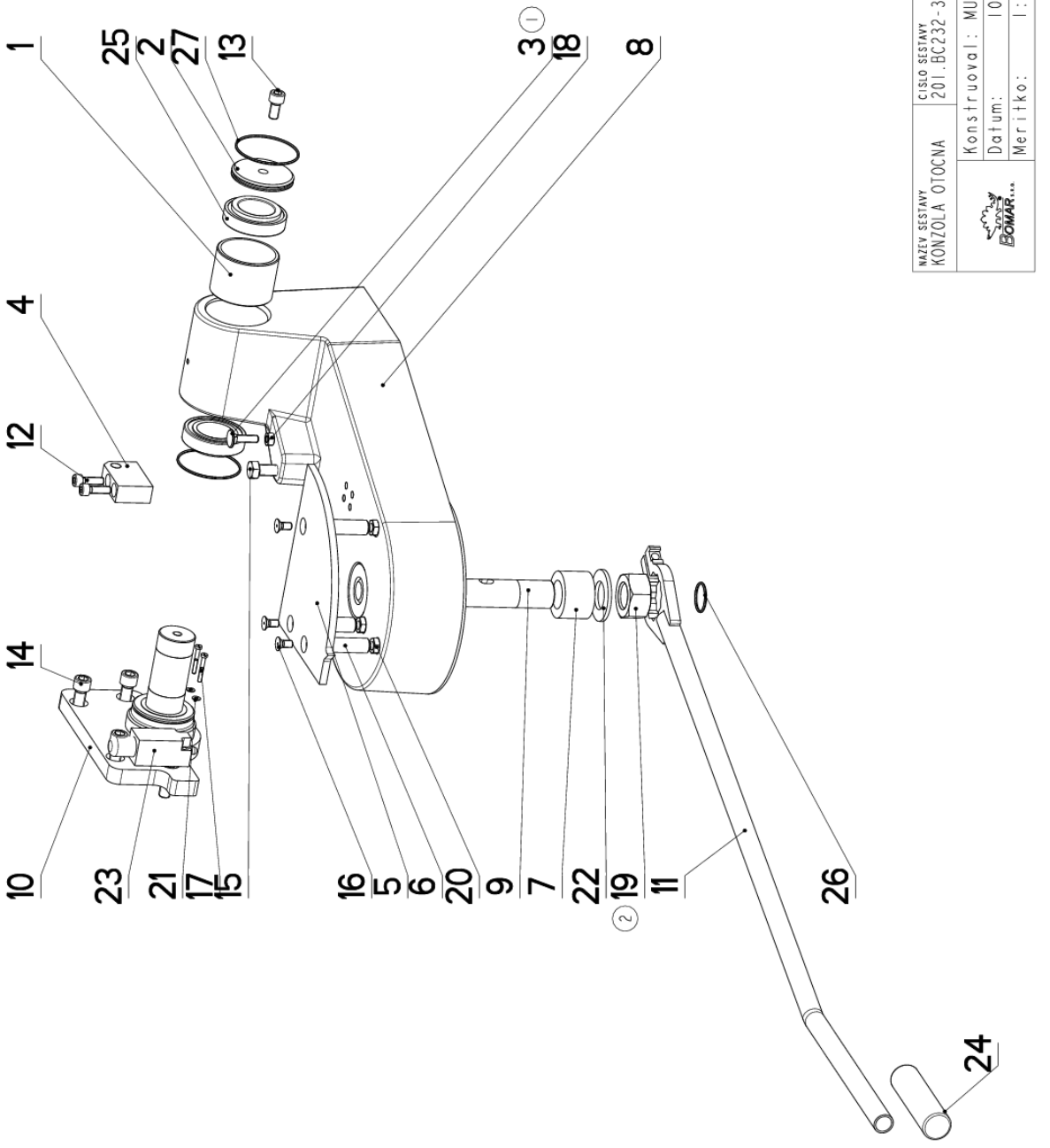
Cislo Sestavy	Ver.	Nazev sestavy
201.BC2318-350	1	KRYTY/COVERS/ABDECKUNGEN

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2801-008	0	TYC / POLE / STANGE	d 10	1
2	30.BC2318-210	0	DRZAK / HOLDER / HALTER	P 2.5x331,5	1
3	30.BC2318-351	0	KRYT / COVER / ABDECKUNG		1
4	30.BC2318-353	0	KRYT / COVER / ABDECKUNG		1
5	30.BC2318-355	0	KRYT / COVER / ABDECKUNG		1
6	30.BC2318-356	0	VZPERA / PROP / STREBE	P 3x93	1
7	30.BC2318-359	0	KRYT PODAVACE / FEEDER COVER / VORSCHUBABDECKUNG		1
8	30.BC2318-361	0	KRYT / COVER / ABDECKUNG	P 1,5x482	1
9	30.BC2318-362	0	ROLNA / PULLEY / ROLLE		1
10	30.BC2318-363	0	DISTANC / DISTANCE / DISTANZ	TR 10x1	1
11	30.BC2318-364	1	DORAZ / STOP PIECE / ANSCHLAG	P 4x57	1
12	30.ER318-358	0	PLECH / PLATE / BLECH	P 4x25	1
13	30.ER318-362	1	PLECH / PLATE / BLECH	P 5x106	1
14	31.2801-014	0	PRUZINA / SPRING / FEDER	1x12.5x60x12	1
15	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	3
16	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	1
17	90.001.25.049	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X35	1
18	90.001.55.083	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X30	2
19	90.004.20.005	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6X35	1
20	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	2
21	90.150.50.005	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 8,4	3
22	90.163.00.011	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	2
23	90.163.00.012	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	3
24	91.173.009	0	SPINAC KONC.S KLADK. / END SWITCH WITH PULLEY / ENDSCHALTER MIT ROLLE	PZ-FR605-M2	2
25	94.001.001	0	RUKOJET / HANDLE / GRIFF	M6 PRUMER 16	1
26	95.001.001	0	LOZISKO / BEARING / LAGER	608 2RS	1
27	99.100.011	0	PANT / HINGE / TÜRBAND	TYP 2189104	2
28	99.205.002	0	PROFIL / PROFILE / PROFIL		1

1.ZRUS. PODLOZKA 30.BC2318-206. 244/ZM345 20.8.2019 SZABARI

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

7.40. Konzola otočná / Turnable consol / Drehkonsole



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Manual rev.: 1

Cislo Sestavy	Ver.	Nazev sestavy
201.BC232-350	2	KONZOLA OTOCNA/TURNABLE CONSOL/DREHKONSOLE

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0702-008	0	POUZDRO / SLEEVE / BÜCHSE	TR 70x5	1
2	30.0702-012	2	VIKO / COVER / DECKEL	P 8x70	1
3	30.0702-013 (1)	0	SROUB / BOLT / SCHRAUBE	M8	1
4	30.BC232-203	0	DRZAK / HOLDER / HALTER	TYC 40x20	1
5	30.BC232-207	1	DESKA / BOARD / PLATTE	P 8x160	1
6	30.BC232-208	0	CEP / LUG / BOLZEN	D 16	3
7	30.BC232-209	0	DISTANC / /	TR 51x10	1
8	30.BC232-301	1	KONZOLA / CONSOLE / KONSOLE		1
9	30.BC232-305	0	CEP / LUG / BOLZEN	SVARENO	1
10	30.BC232-314	2	KONZOLA / CONSOLE / KONSOLE		1
11	30.ER332-304	0	PAKA / LEVER / HEBEL	SVARENO	1
12	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	2
13	90.001.25.046	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X20	1
14	90.001.25.057	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x25	4
15	90.005.55.034	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M12X40	1
16	90.011.27.012	0	ZAPUSTNY IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8X16	3
17	90.012.50.007	0	SROUB / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M4X30	2
18	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
19	90.100.55.014 (2)	0	MATICE / NUT / MUTTER	MATICE _ M30 ZN	1
20	90.101.55.002	0	MATICE / NUT / MUTTER	MATICE M10	3
21	90.150.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 4,3	2
22	90.150.50.018	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 31	1
23	91.173.007	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	-RIWK	1
24	94.004.502	0	RUKOJET / HANDLE / GRIFF	D22	1
25	95.300.002	0	LOZISKO KUZELIK / BEARING / LAGER	32008AX	2
26	96.001.008	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	26x2 NBR 70SH	1
27	96.001.018	0	O-KROUZEK STATIC / STATIC O RING / O-RING STATISCH	63X2	2

1.ZRUS. SROUB 90.005.55.015 A NAHR. 30.0702-013. 099/ZM139 3.4.2019 SZABARI
2.ZR.MATICE 90.100.25.001 A NAHR. 90.100.55.014. 050/068 10.02.2020 KOSYK

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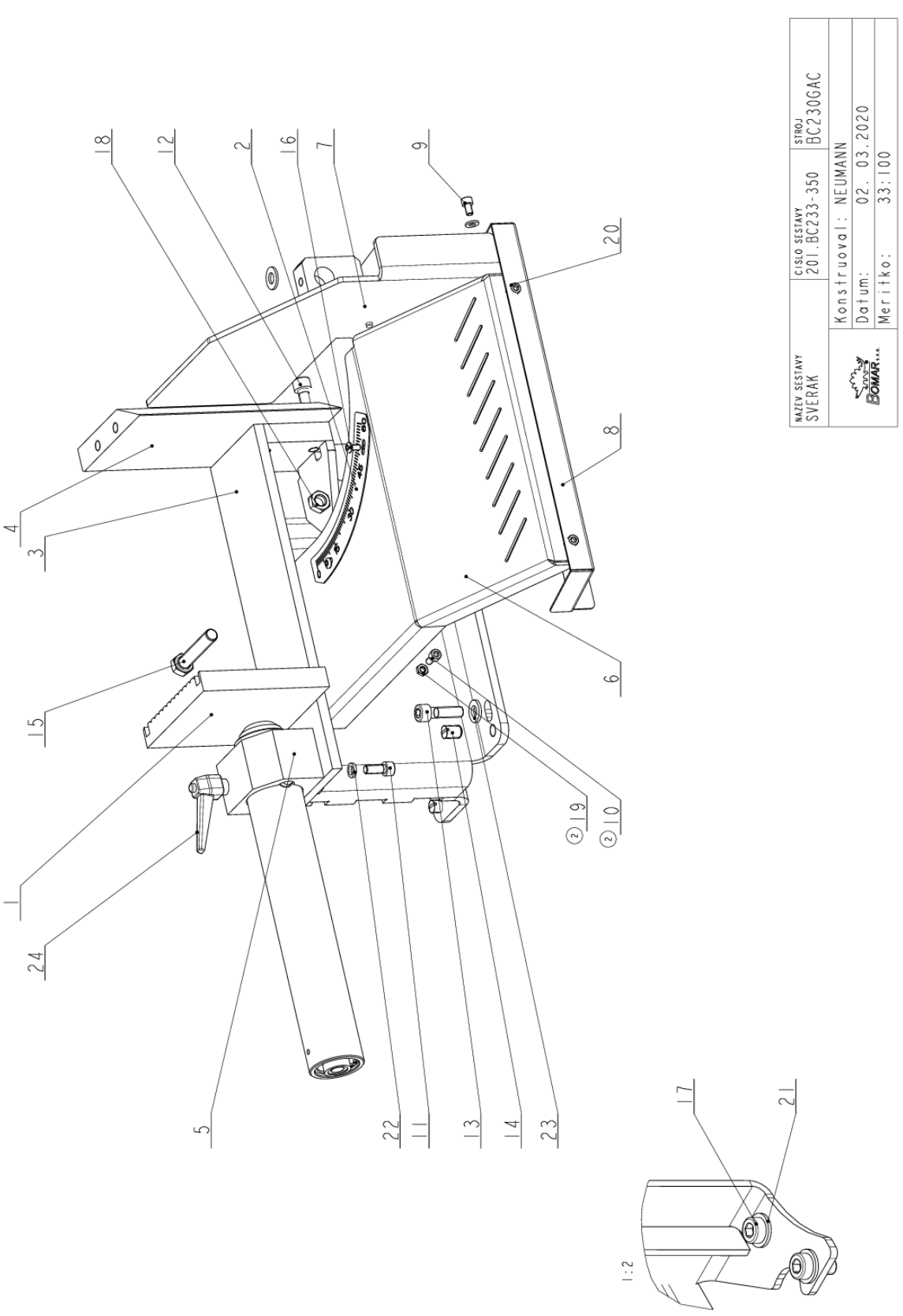
7.42. Svěrák / Vice / Schraubstock



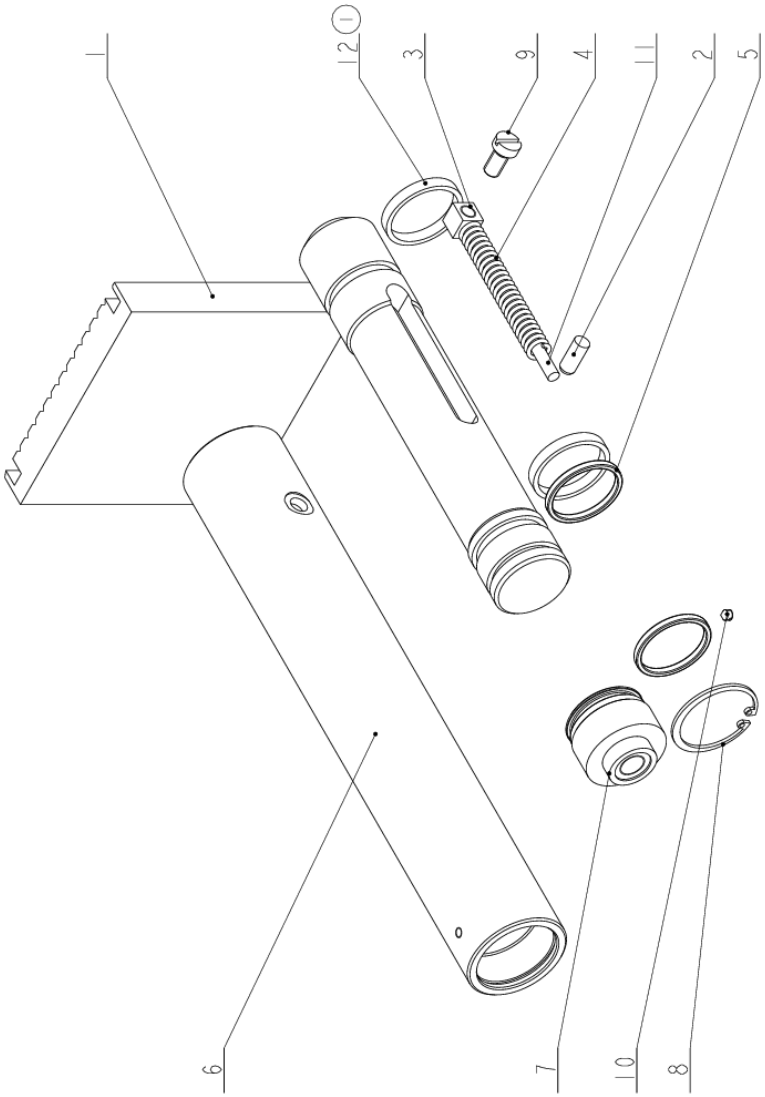
Cislo Sestavy	Ver.	Nazev sestavy
201.BC233-350	2	SVERAK/VICE/SCHRAUBSTOCK

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.2307-220	1	VALEC UPINACI / FIXING CYLINDER / SPANNZYLINDER		1
2	30.BC233-209	1	DESKA / BOARD / PLATTE	P 1x114	1
3	30.BC233-301	0	SVERAK / VICE / SCHRAUBSTOCK		1
4	30.BC233-305	0	CELIST / JAW / BACKE	HR 130x25	1
5	30.BC233-306	0	DRZAK / HOLDER / HALTER	TYC 80x50	1
6	30.BC233-307	2	ROST / /	P 3x340	1
7	30.BC233-353	0	BOCNICE / SIDE PLATE / SEITENTEIL		1
8	30.BC233-354 (1)	1	SKLUZ / SLIDE / RUTSCH	P 1,5x145	1
9	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	4
10	90.001.25.016 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X12	2
11	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	4
12	90.001.25.047	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X25	4
13	90.001.25.049	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X35	4
14	90.002.2D.XXX	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M12X18	4
15	90.005.55.XXX	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M12X65	1
16	90.013.27.003	0	SROUB / BOLT / SCHRAUBE	M5X10	2
17	90.015.25.013	0	SROUB IMBUS / /	M10	2
18	90.101.55.006	0	MATICE / NUT / MUTTER	MATICE M12	1
19	90.101.55.008 (2)	0	MATICE / NUT / MUTTER	MATICE M6	2
20	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 6,4	4
21	90.150.50.006	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 10,5	2
22	90.163.00.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	4
23	90.163.00.011	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	4
24	94.008.006	0	PAKA UPINACI / ATTACHMENT LEVER / SPANNHEBEL	M10	1

1. ZRUS. SKLUZ 30.BC233-304 A NAHR. SKLUZEM 30.BC233-354. 255/ZM355 26.08.2019 BENDA
2.PRUS.2xSROUB 90.001.25.016;PR.2xMATICE 90.101.55.008. 071/ZM100 2.03.2020 KOSYK

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

7.44. Válec upínací / Fixing cylinder / Spannzylinder



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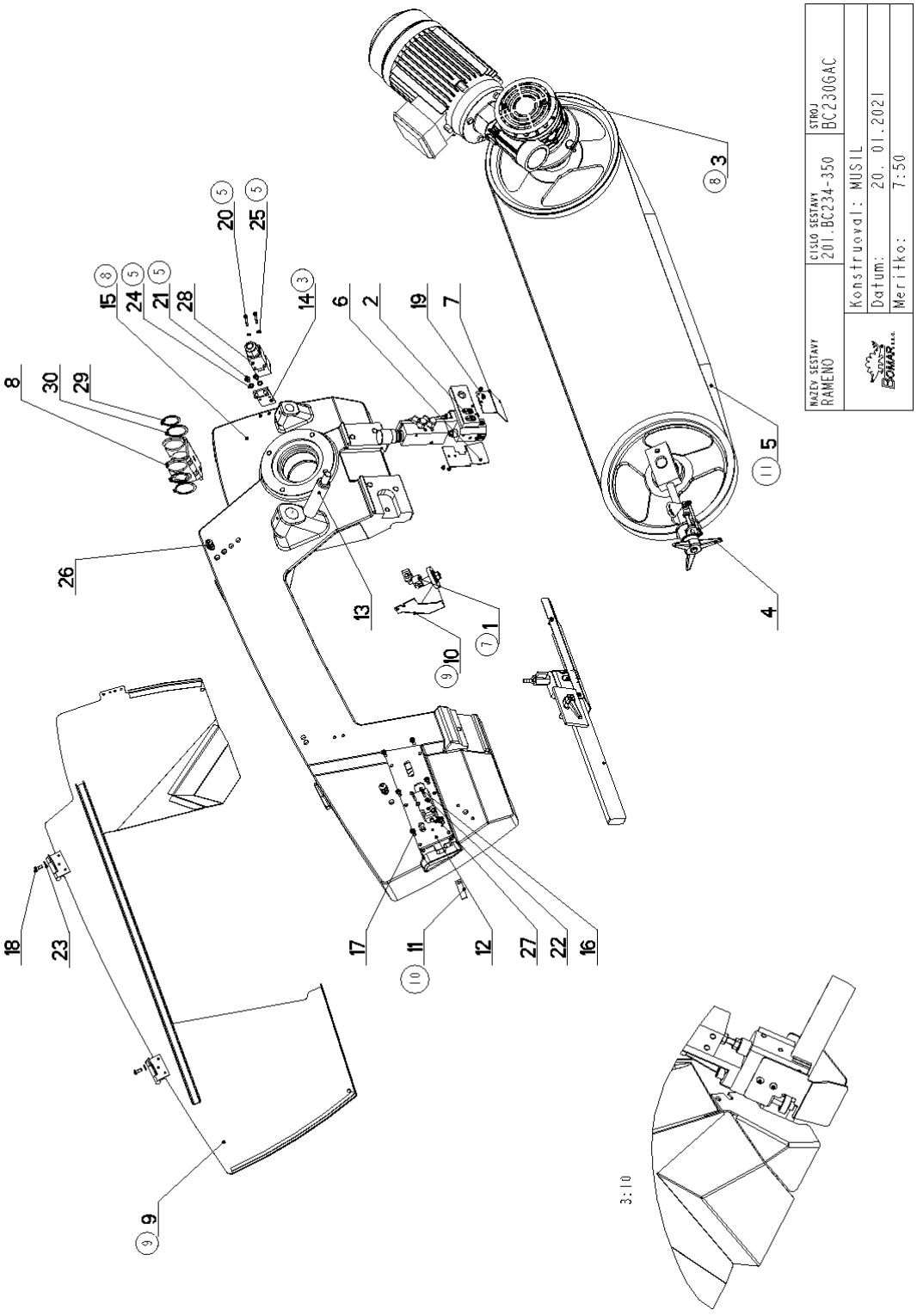
Cislo Sestavy	Ver.	Nazev sestavy
201.2307-220	1	VALEC UPINACI/FIXING CYLINDER/SPANNZYLINDER

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2307-221	2	CELIST / JAW / BACKE		1
2	90.301.0Z.008	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 8X20	1
3	30.2107-205	0	DORAZ / STOP PIECE / ANSCHLAG	HR12	1
4	31.2107-206	0	PRUZINA / SPRING / FEDER	2x12x84x25,5	1
5	96.002.017	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	34x3 NBR 70SH	2
6	30.2107-204	0	VALEC / ROLLER / ZYLINDER	TR 52/42	1
7	30.2107-203	0	VIKO / COVER / DECKEL	d 45	1
8	95.801.006	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 42	1
9	90.012.50.012	0	SR. S VALC. HLAV. / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M8X16	1
10	90.003.2D.001	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5X6	1
11	90.301.0Z.017	0	KOLIK VALCOVY / CYLINDRICAL PIN SOFT / ZYLINDERSTIFT WEICH	KOLIK 6X45	1
12	96.084.010 (1)		KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GP6500400-T47	2

1.ZRUS. VODICI KROUZ. 1x95.780.001 A NAHRAZ. VOD. KROUZ. 2x96.084.010 077/126. 28.3.2017 VLACH

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

7.46. Rameno / Shoulder / Sägerahmen



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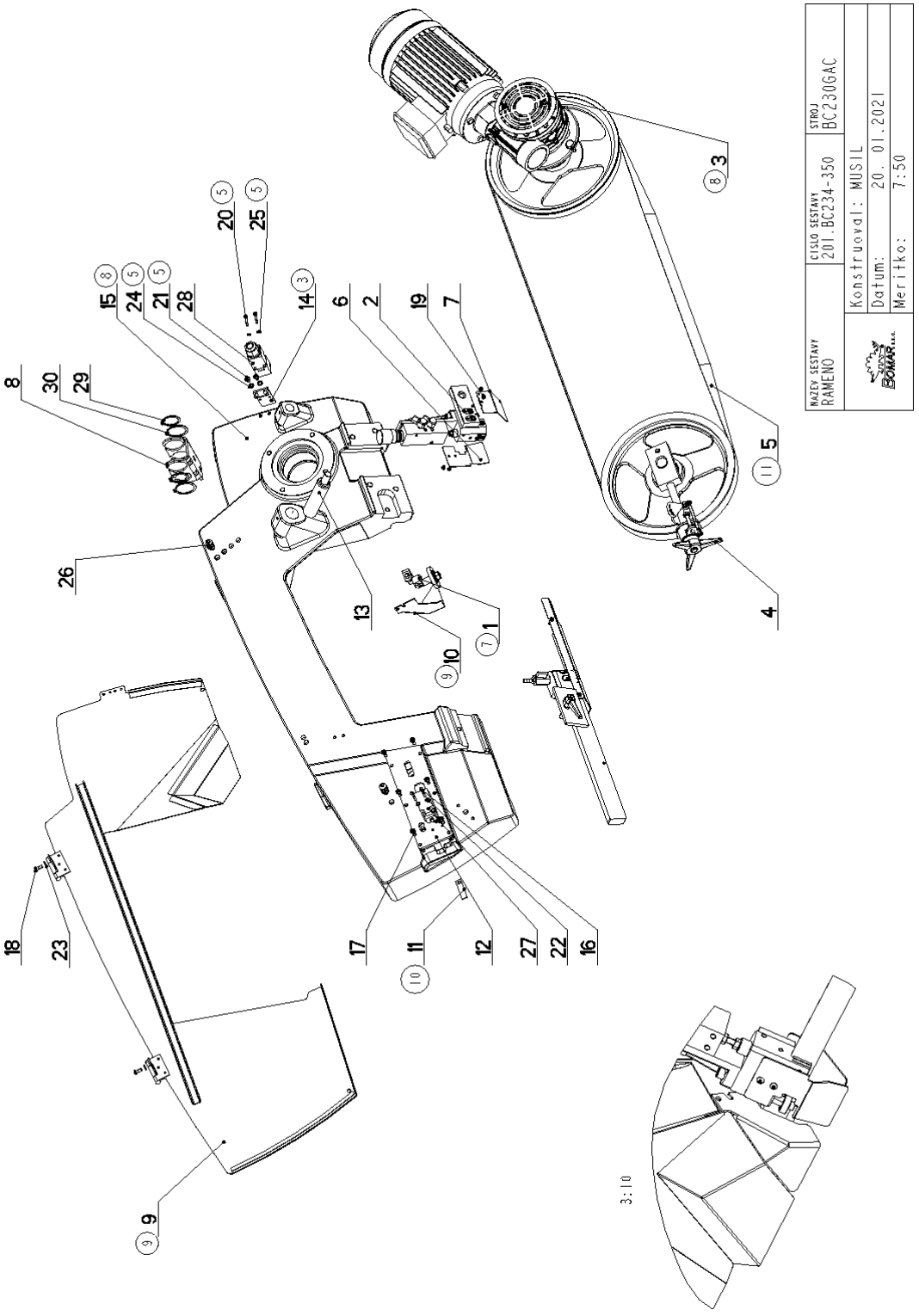
Cislo Sestavy	Ver.	Nazev sestavy
201.BC234-350	II	RAMENO/SHOULDER/SÄGERAHMEN

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	201.BC234-060 (7)	3	KARTAC / BRUSH / BÜRSTE		1
2	201.BC234-210	3	VEDENI PASU / BELT GUIDE / SÄGEBANDFÜHRUNG		1
3	201.SC235-150 (8)	1	POHON / DRIVE / ANTRIEB		1
4	201.SC238-000	0	NAPINANI / TENSIONING / SPANNUNG		1
5	30.0504-912 (11)	0	PAS PILOVY / SAW BELT / SÄGEBAND	2720x0,9x25127	1
6	30.0704-035	1	KRYT PASU / BELT COVER / BANDABDECKUNG	P1.5x56	1
7	30.BC234-202	0	KRYT PASU / BELT COVER / BANDABDECKUNG	P 1.5x60	1
8	30.BC234-302	2	DRZAK / HOLDER / HALTER	P 4x120	1
9	30.BC234-304 (9)	1	KRYT RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
10	30.BC234-305 (9)	1	KRYT / COVER / ABDECKUNG	P 2x97	1
11	30.ER254-002 (10)	1	PLECH / PLATE / BLECH	P 1,5x12	1
12	30.SC234-002	1	KRYT NAPINANI / TENSIONING COVER / BANDSPANNUNGSABDECKUNG	P 6x80	1
13	30.SC234-006	2	CEP / LUG / BOLZEN	D 30	1
14	30.SC234-106 (3)	1	DRZAK / HOLDER / HALTER	P3x32	1
15	30.SC234-111 (8)	1	RAMENO / SAW ARM / SÄGERAHMEN	ODLITEK	1
16	90.012.50.007	0	SROUB / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M4x30	2
17	90.013.27.008	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M6X16	6
18	90.013.27.012	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M6X14	2
19	90.013.27.017	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M4x6	4
20	90.013.92.103 (5)	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M4x25	2
21	90.013.92.114 (5)	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M6X10	2
22	90.150.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 4,3	2
23	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 8,4	2
24	90.152.50.001 (5)	0	PODL VEJIROVA ZN / /	6.4	2
25	90.152.50.005 (5)	0	PODLOZKA VEJIROVA / /	PODLOZKA 4,3	2
26	91.070.010	0	PRUCHODKA / LEADTHROUGH / DURCHFÜHRUNG	M12x1.5 CERNA	2
27	91.173.007	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		1
28	91.173.012	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		1

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

7.48. Rameno / Shoulder / Sägerahmen



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29	95.800.014	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 35	2
30	95.800.016	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 42	2

1.ZRUS.POHON 201.8004-520 A NAHR.201.8004-530 118/ZM218 2.7.2018 NEDUCHAL
2.PRIDAN 2xSROUB M4x30 (90.013.9Z.104). 171/ZM298 3.9.2018 NEDUCHAL
3.PRIDAN DRZAK 30.SC234-106. 164/ZM222 11.62019 SLEZACKOVA
4.ZRUS. TESNENI 96.080.001, VENTIL 99.260.003, 2xSROUB M5x10 90.013.27.003, DRZAK 30.1814-011 A REDUKCE 94.202.002. 229/ZM310 23.7.2019 SZABARI
5.PRID.2xSROUB M6x10(90.013.9Z.114);2xPODLOZKA 90.152.50.001;2xPODLOZKA 90.152.50.005;2xSROUB M4x25(90.013.9Z.103). 164/ZM399 30.9.2019 SZABARI
6.ZRUSEN POHON 201.8004-530 A NAHRAZEN 201.SC234-530. 318/ZM447 11.11.2019 SLEZACKOVA
7.ZRUS.KRYT RAMENE 30.BC234-304 A NAHR.30.BC234-404,ZRUS.KARTAC 201.SC234-060 A NAHR.201.BC234-060,PRID.KRYT KARTACKU 30.
BC234-105.336/ZM476 6.12.2019 KOSYK
8.ZRUS.POHON 201.SC234-530 A NAHR.201.SC235-150,ZRUS,RAMENO 30.SC234-101 A NAHR.30.SC234-111.060/ZM078 13.2.2020 SLEZACKOVA
9.ZRUS.KRYT RAMENE 30.BC234-404 A NAHR.30.BC234-304,ZRUS,KRYT 30.BC234-105 A NAHR.30.BC234-305. 142/ZM195 4.5.2020 SLEZACKOVA
10.PRIDAN PLECH 30.ER254-002. 213/ZM307 2.9.2020 SLEZACKOVA
11.ZRUSEN PAS 44.103.003, NAHRAZEN PASEM 30.0504-912. 305/ZM029 20.1.2021 NESPUREK

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

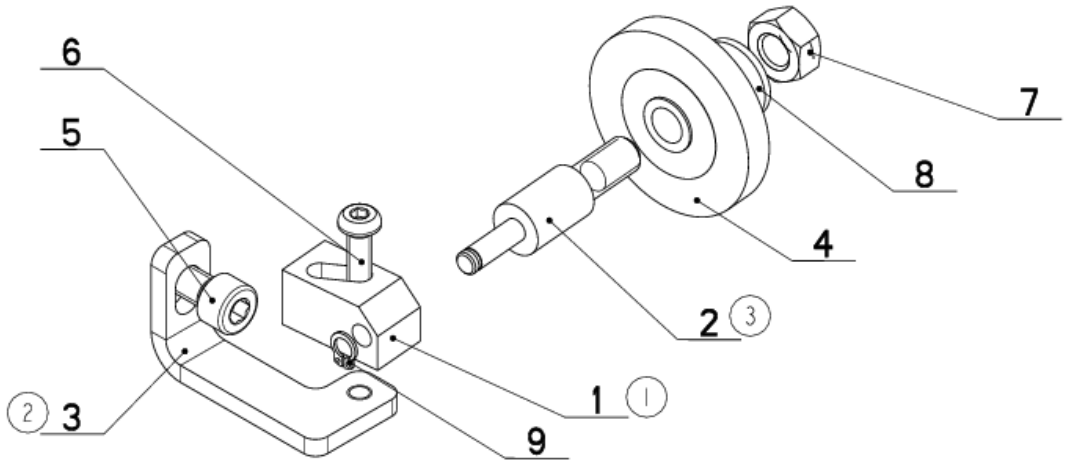
Cislo Sestavy	Ver.	Nazev sestavy
201.BC234-060	3	KARTAC/BRUSH/BÜRSTE

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0104-022	0	DRZAK / HOLDER / HALTER	HR 16x16	1
2	30.0704-029 (3)	0	HRIDEL / SHAFT / WELLE	d 14	1
3	30.BC234-062 (2)	1	DRZAK / /	P 5x30	1
4	31.0704-031	0	KARTAC / BRUSH / BÜRSTE	D 50/ d 9.5	1
5	90.001.25.029	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X12	1
6	90.013.27.009	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M6X20	1
7	90.100.55.006	0	MATICE / NUT / MUTTER	MATICE _ M10	1
8	90.150.50.006	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 10,5	1
9	95.800.001	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTNY KROUZEK 6	1

1. PRID.DRZAK 30.BC234-062; PRID.DRZAK 30.0104-022; PRID.HRIDEL 30.BC234-063; ZRUS.HRIDEL 30.0704-029. ZM.122/163 30.5.2016 SLEZACKOVA

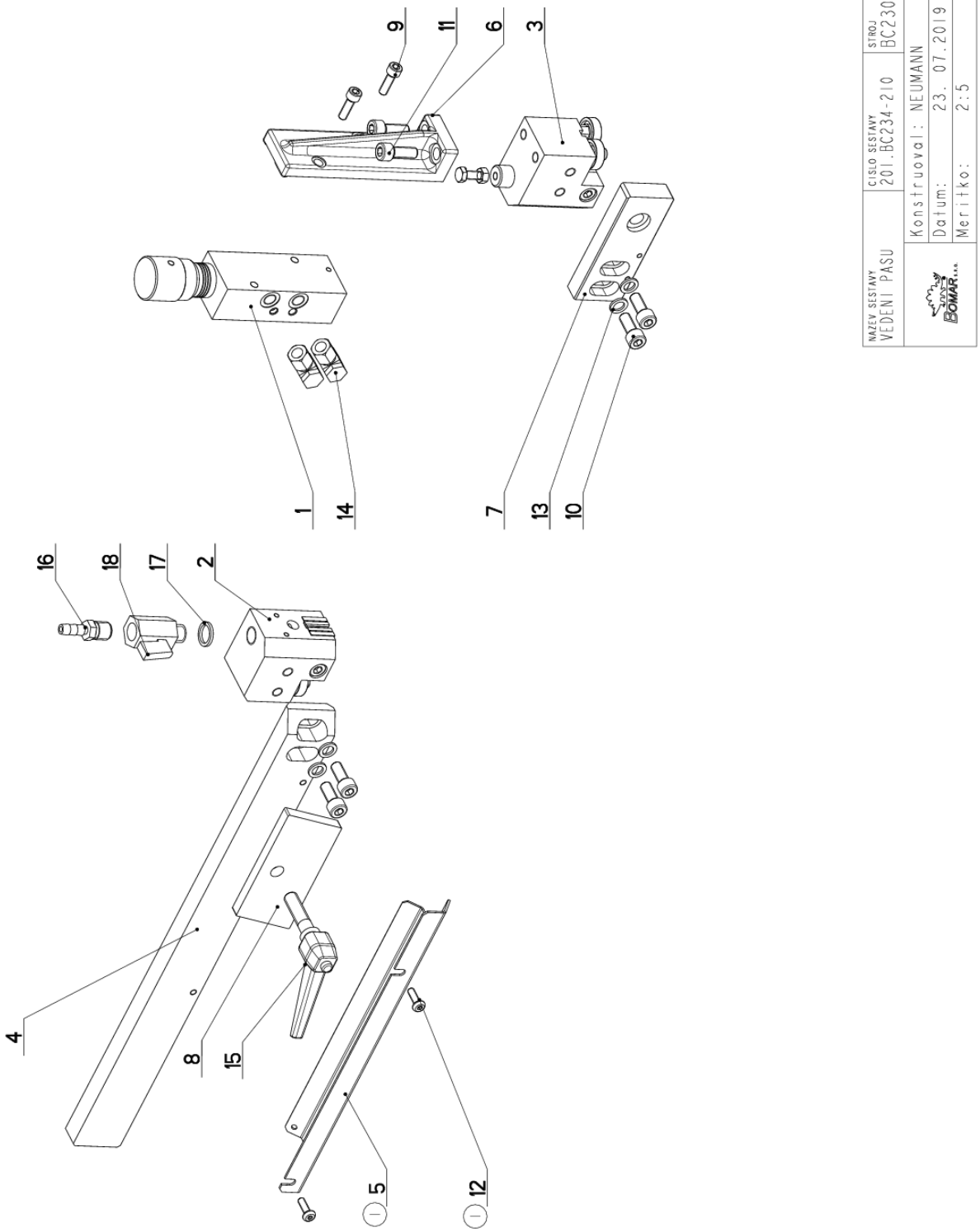
2.UP.TVARU DRZAKU 30.BC234-062,ZRUS.HRIDEL 30.BC234-063 A NAHR.30.9704-007. 067/ZM070 10.3.2017 VLACH

3.ZRUS. HRIDEL 30.9704-007 A NAHR. 30.0704-029. 152/ZM208 14.5.2019 SZABARI



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

7.51. Vedení pásu / Belt guide / Sägebandführung



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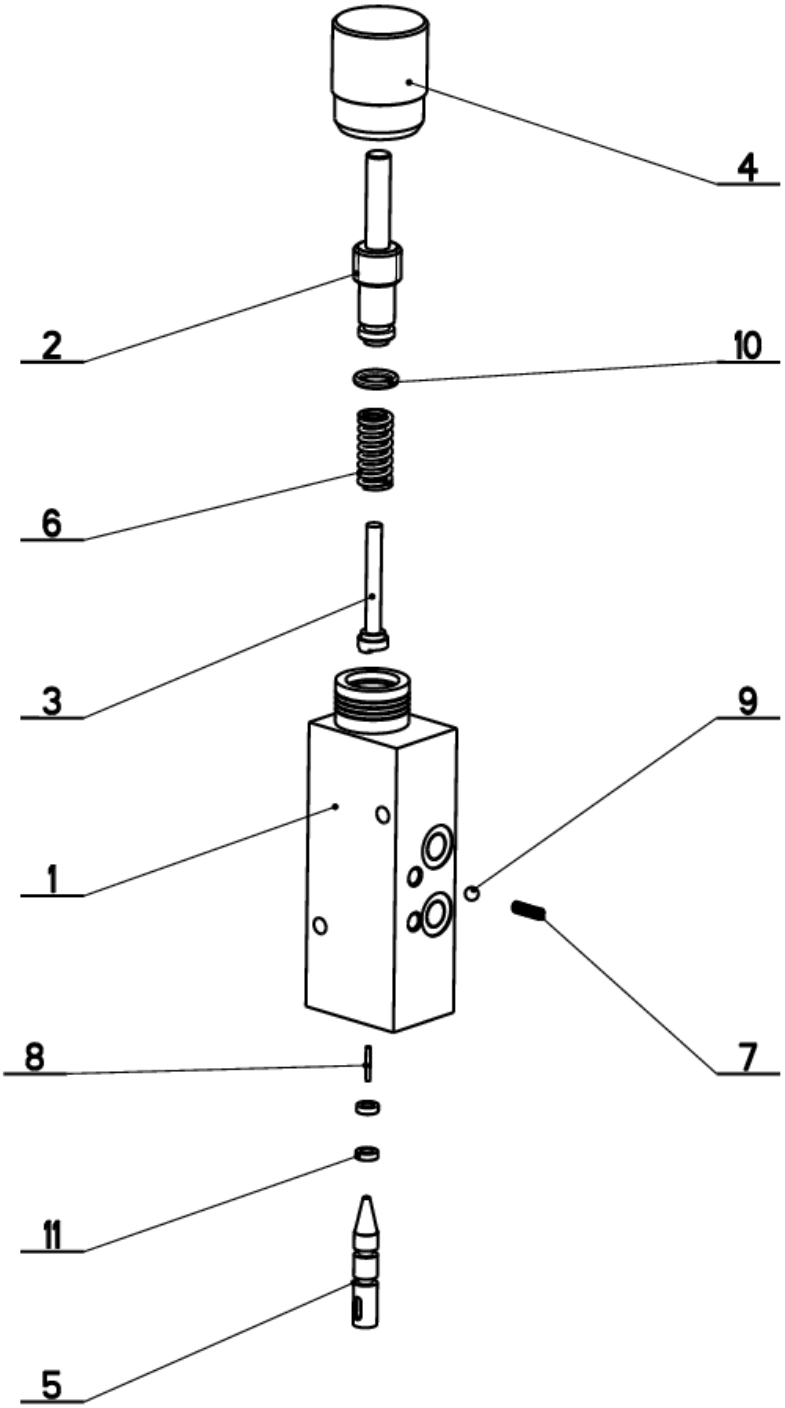
Cislo Sestavy	Ver.	Nazev sestavy
201.BC234-210	3	VEDENI PASU/BELT GUIDE/SÄGEBANDFÜHRUNG

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	251.218	0	REGULACE PRITLAKU / PRESSURE REGULATION / SCHNITTDRUCKREGULATION		1
2	201.0110-100	2	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
3	201.2810-200	2	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
4	30.0104-015	7	LISTA / TRIM / LEISTE	HR 40x20	1
5	30.0704-221 (1)	0	KRYT PASU / BELT COVER / BANDABDECKUNG	P 1,5x98	1
6	30.2804-001	0	DRZAK / HOLDER / HALTER		1
7	30.8004-431	4	LISTA / TRIM / LEISTE	HR 40x15	1
8	30.SC234-051	2	UPINKA / FASTENER / SPANNEISEN	P 8x50	1
9	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X20	2
10	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	4
11	90.001.25.104	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X22	2
12	90.013.27.005 (1)	0	SROUB PULKULATY / HALF ROUND BOLT / HALBRUNDSCHRAUBE	M5X16	2
13	90.163.00.002	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 8	4
14	92.003.104	0	SROUBENI UHLOVE / ANGLE BOLTING / WINKELVERSCHRAUBUNG	607002	2
15	94.008.013	0	PAKA UPINACI / ATTACHMENT LEVER / SPANNHEBEL	M10	1
16	94.202.002	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	GES 6/R1/4"	1
17	96.080.001	0	TESNENI / SEALING / DICHTUNG	17.8x13.5x2	1
18	99.260.001	0	VENTIL / VALVE / VENTIL	VENTIL KULOVY	1

1.PRIDAN KRYT PASU 30.0704-021,2xSROUB M5x16 90.013.27.005. 021/ZM100 21.3.2017 SLEZACKOVA
2.ZRUS. DRZAK 94.204.001 A NAHR. 30.9010-003. 039/ZM058 12.2.2019 SZABARI
3.ZRUS. DRZAK 30.9010-003 A TRUBKA 30.3510-004. 229/ZM310 23.7.2019 SZABARI

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

7.53. Regulace přítlaku / Pressure regulation / Schnittdruckregulation



NAZEV SESTAVY	CISLO SESTAVY	STROJ
REGULACE PRITLAK	051.218	ERGO250
	Konstruoval:	
	Datum:	16. 08.2012
	Meritko:	1:2

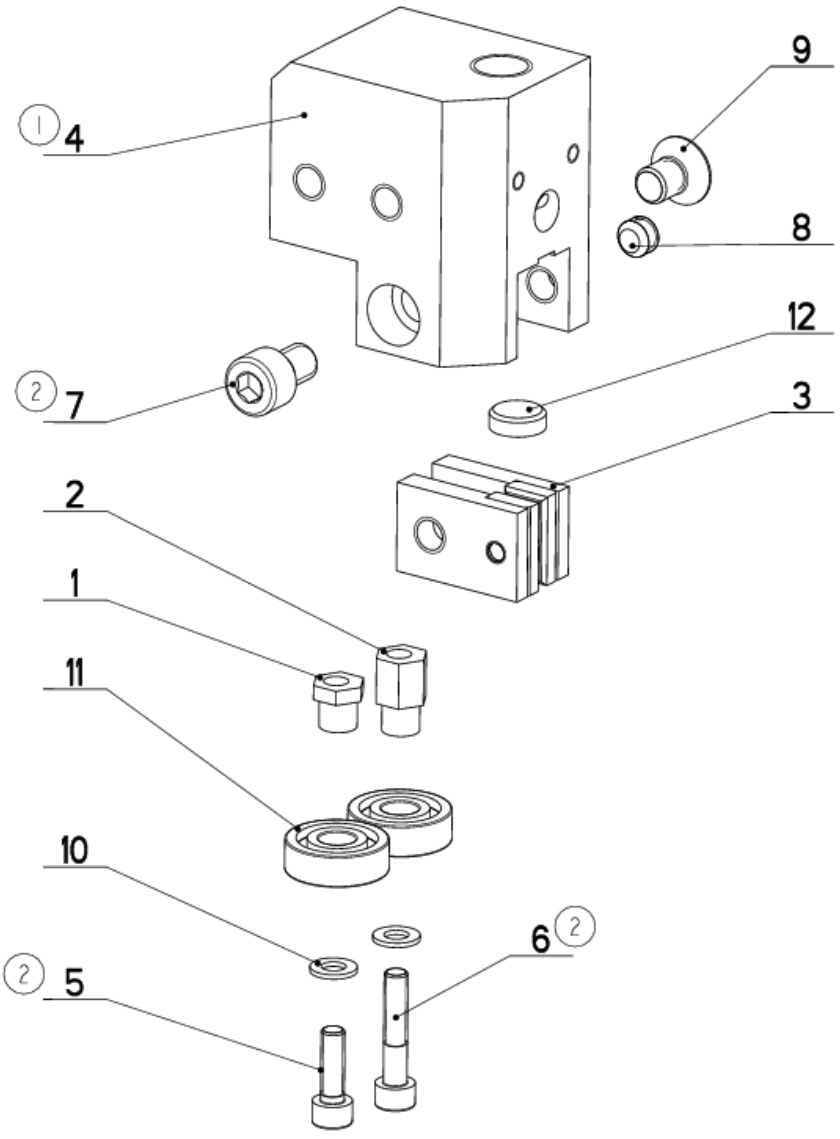
7.54. Kusovník / Piece list / Stückliste
Regulace přítlaku / Pressure regulation / Schnittdruckregulation

Cislo Sestavy	Ver.	Nazev sestavy
251.218	0	REGULACE PRITLAKU/PRESSURE REGULATION/SCHNITTDRUCKREGULATION

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.2016-001	2	TELESO / BODY / KÖRPER	HR 40 x 40	1
2	30.2016-003	0	SROUB / BOLT / SCHRAUBE	d 16	1
3	30.2016-004	1	CIDLO / SENSOR / SENSOR	d 10	1
4	30.2016-005	0	KOLECKO / WHEEL / ROLLE	d 32	1
5	30.3516-002	0	JEHLA / NEEDLE / NADEL	d 8	1
6	31.2016-007	0	PRUZINA / SPRING / FEDER	d 11.6x1.6	1
7	31.2016-008	0	PRUZINA / SPRING / FEDER	0.25x3.6x12x9.5	1
8	95.690.001	0	JEHLA / NEEDLE / NADEL	1.5x11.8	1
9	95.691.001	0	KULICKA LOZISKA / BALL / KUGEL	RB 4.5	1
10	96.001.003	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	8X2	1
11	96.002.001	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	4X2	2

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

7.55. Kostka vodící / Lead cube / Führungsklotz



NAZEV SESTAVY	CISLO SESTAVY	STROJ
KOSTKA VODICI	201.0110-100	STG-240
	Konstruoval:	
	Datum: 02. 10.2019	
	Meritko: 4:5	

Cislo Sestavy	Ver.	Nazev sestavy
201.0110-100	2	KOSTKA VODICI/LEAD CUBE/FÜHRUNGSKLOTZ

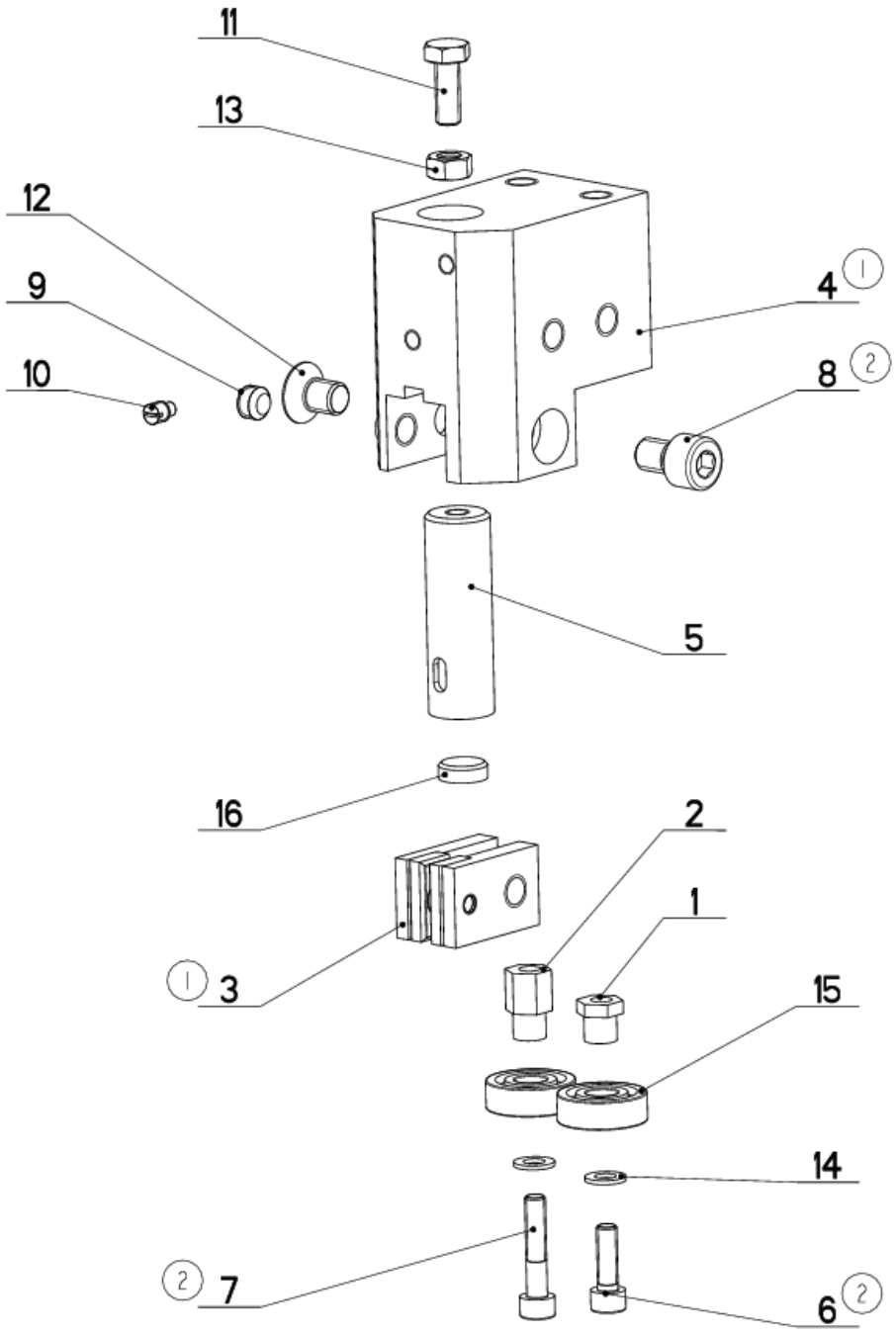
Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0104-018	0	EXCENTR / CAM / EXZENTER	SK10	1
2	30.0104-019	0	EXCENTR / CAM / EXZENTER	SK10	1
3	30.0104-021 (1)	0	DRZAK / HOLDER / HALTER		2
4	30.0104-032 (1)	2	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ	TYC 60x40	1
5	90.001.25.009 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X16	1
6	90.001.25.011 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X25	1
7	90.001.25.029 (2)	0	SROUB / /	M8x12.00	1
8	90.002.20.009	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8X6	1
9	90.011.27.007	0	ZAPUSTNY IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8X12	1
10	90.150.50.003	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 5,3	2
11	95.001.001	0	LOZISKO / BEARING / LAGER	608 2RS	2
12	99.040.002	0	TVRDOKOV / HARD METAL / HM-SEGMENT	d 12	1

1.ZRUS.KOSTKA 30.0104-017 A NAHR.30.0104-032,ZRUS.DRZAK 30.0104-020 A NAHR. 30.0104-021. 297/272 12.8.2008 KRPEC

2.ZRUS 90.005.55.005 A NAHR.90.001.25.011; ZRUS 90.005.55.003 A NAHR.90.001.25.009;ZRUS 90.001.25.030 A NAHR.90.001.25.029;
260/ZM432 29.11.2018 SCERBA

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

7.57. Kostka vodící / Lead cube / Führungsklotz



NAZEV SESTAVY	CISLO SESTAVY	STROJ
KOSTKA VODICI	201.2810-200	STG 240A/GA
BOMAR	Konstruoval:	
	Datum: 02. 10.2019	
	Meritko: 7:10	

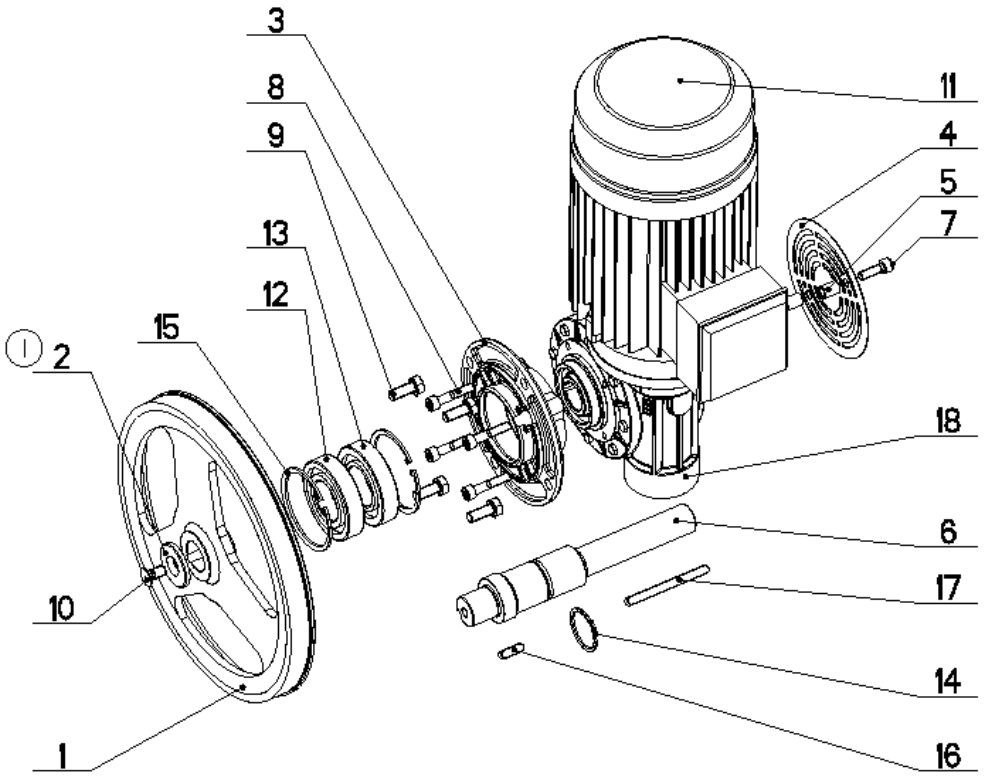
Cislo Sestavy	Ver.	Nazev sestavy
201.2810-200	2	KOSTKA VODICI/LEAD CUBE/FÜHRUNGSKLOTZ

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0104-018	0	EXCENTR / CAM / EXZENTER	SK10	1
2	30.0104-019	0	EXCENTR / CAM / EXZENTER	SK10	1
3	30.0104-021 (1)	0	DRZAK / HOLDER / HALTER		2
4	30.2804-012 (1)	3	KOSTKA VODICI / /	HR 60x40	1
5	30.3510-002	1	DRZAK TVRDOKOVU / POA HOLDER / HM-HALTER	TYC 16	1
6	90.001.25.009 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X16	1
7	90.001.25.011 (2)	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X25	1
8	90.001.25.029 (2)	0	SROUB / /	M8x12.00	1
9	90.002.20.009	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8X6	1
10	90.004.20.017	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5X8	1
11	90.005.55.007	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M6X16	1
12	90.011.27.007	0	ZAPUSTNY IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8X12	1
13	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE _ M6	1
14	90.150.50.003	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 5,3	2
15	95.001.001	0	LOZISKO / BEARING / LAGER	608 2RS	2
16	99.040.002	0	TVRDOKOV / HARD METAL / HM-SEGMENT	d 12	1

1.ZRUS.KOSTKA 30.2804-002 A NAHR.30.2804-012,ZRUS.DRZAK 30.0104-020 A NAHR.201.0104-021. 340/ZM343 16.10.2008 SLEZACKOVA
2.ZRUS 90.005.55.005 A NAHR.90.001.25.011; ZRUS 90.005.55.003 A NAHR.90.001.25.009;ZRUS 90.001.25.030 A NAHR.90.001.25.029;
260/ZM432 29.11.2018 SCERBA

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

7.59. Pohon / Drive / Antrieb



NAZEV SESTAVY	CISLO SESTAVY	STROJ
POHON	201.SC235-150	&stroj
BOMAR	Konstruoval: MUSIL	
	Datum: 21. 01.2020	
	Meritko: 1:5	

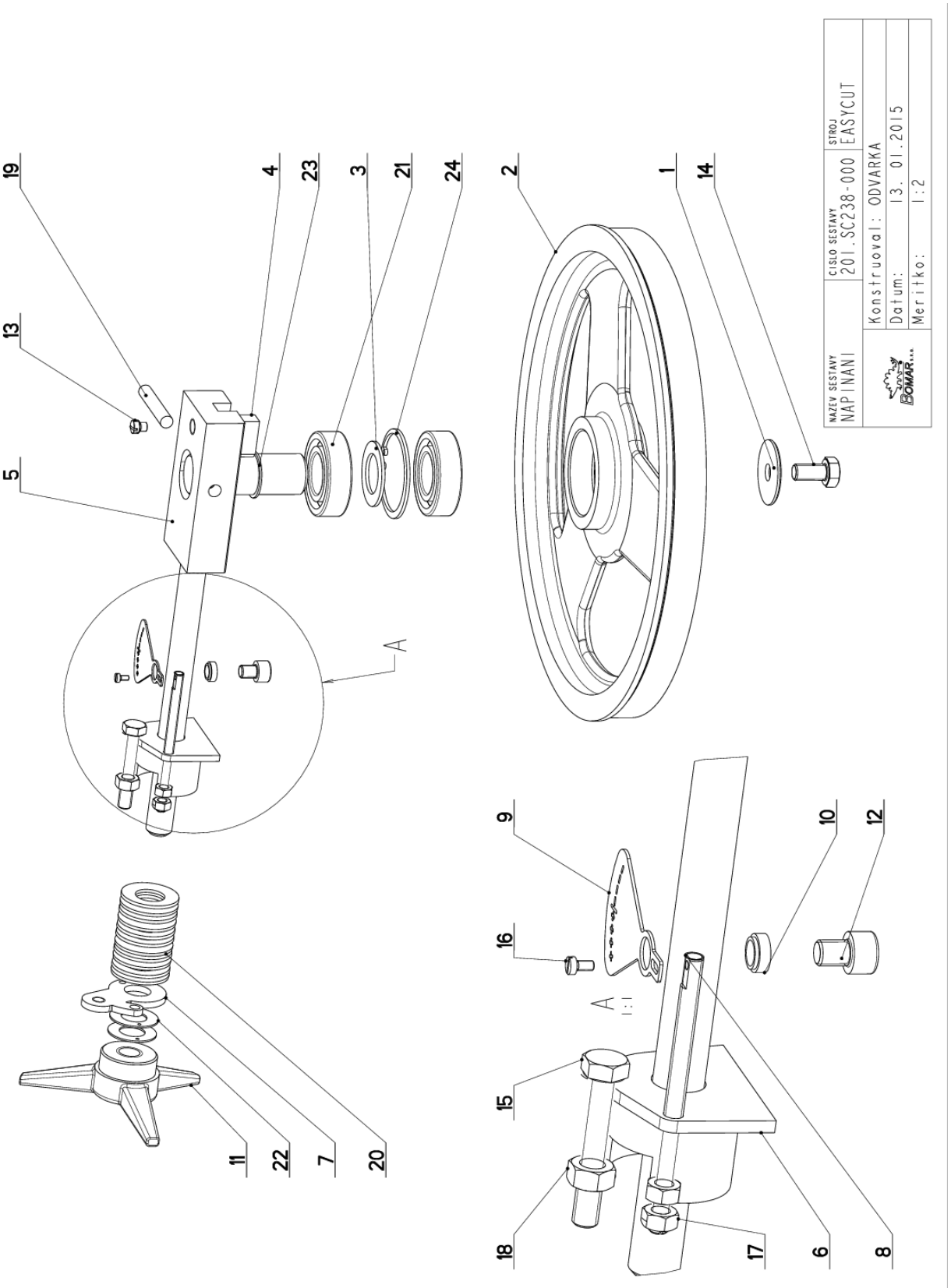
Cislo Sestavy	Ver.	Nazev sestavy
201.SC235-150	1	POHON/DRIVE /ANTRIEB

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0505-006	1	KOLO HNACI / DRIVE WHEEL / ANTRIEBSRAD	ODLITEK	1
2	30.1502-465 (1)	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	d 45	1
3	30.8004-426	1	PRIRUBA / FLANGE / FLANSCHE	ODLITEK	1
4	30.BC235-205	1	KRYT / COVER / ABDECKUNG	PO.8x140	1
5	30.BC235-207	0	DISTANC / DISTANCE / DISTANZ	TR 12x2	2
6	30.ER255-101	0	HRIDEL / SHAFT / WELLE	D 45	1
7	90.001.25.033	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x25	2
8	90.001.25.036	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X40	4
9	90.005.55.024	0	SROUB SHRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X25	4
10	90.011.27.008	0	ZAPUSTNY IMBUS / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M10X20	1
11	91.001.381	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	90L-8/4-B14	1
12	95.001.021	0	LOZISKO / BEARING / LAGER	6208 2RS	1
13	95.200.001	0	LOZISKO / BEARING / LAGER	VALECKOVA L. IRADA	1
14	95.800.015	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 40	1
15	95.801.013	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 80	2
16	95.810.007	0	PERO TESNE / TIGHT SPRING / PASSFEDER	PERO 8X7X25	1
17	95.810.028	0	PERO TESNE / TIGHT SPRING / PASSFEDER	PERO 8X7X90	1
18	99.006.017	0	PREVODOVKA SNEKOVA / WORM GEAR TRANSMISSION / SCHNECKENGETRIEBE	MI 60, I=20	1

1.ZRUSENA PODLOZKA 30.1201-465 A NAHR.30.1502-465. 244/ZM364 27.11.2020 SLEZACKOVA

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

7.61. Napínání / Tensioning / Spannung

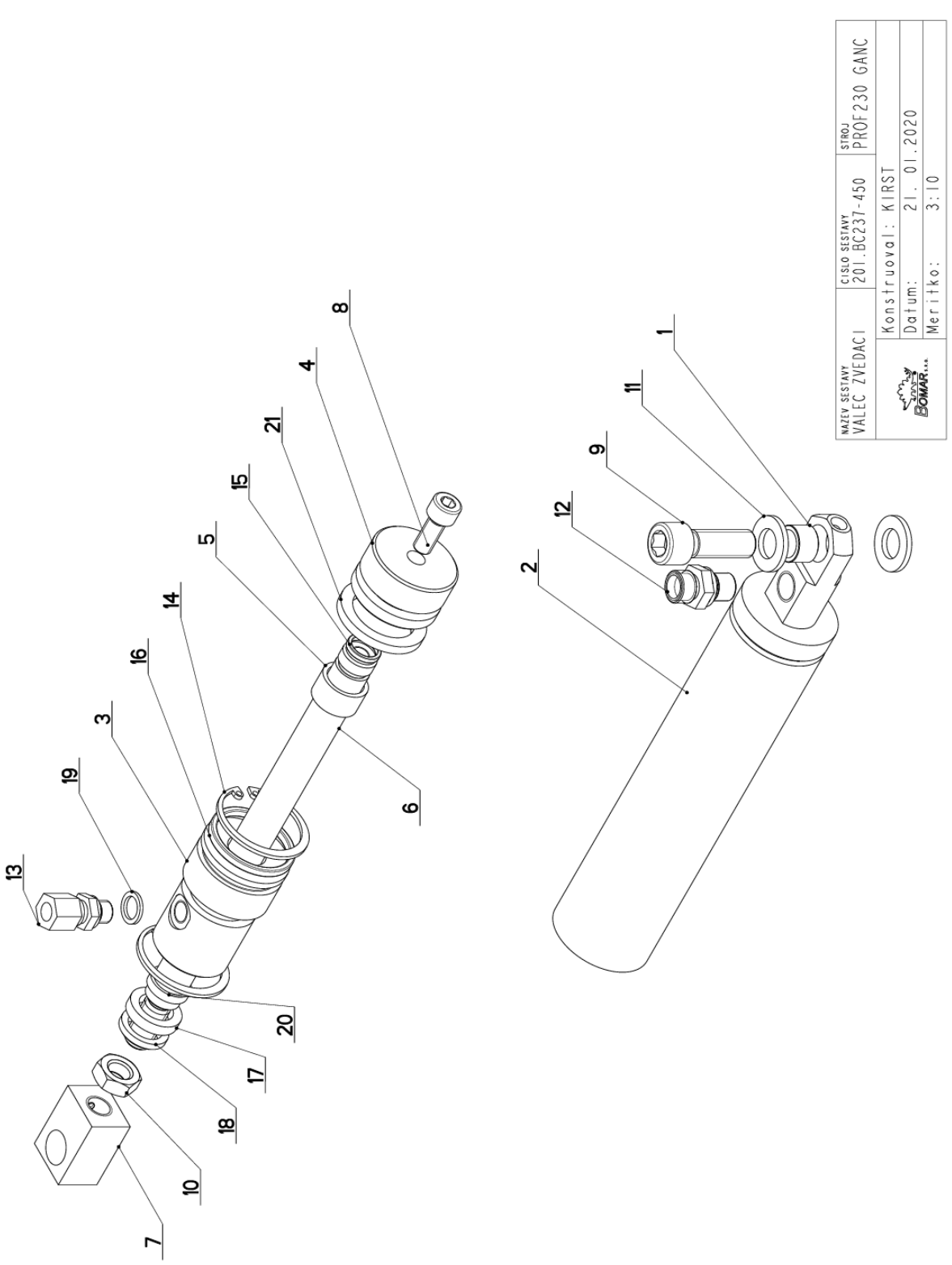


Cislo Sestavy	Ver.	Nazev sestavy
201.SC238-000	0	NAPINANI/TENSIONING/SPANNUNG

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0505-011	1	PODLOZKA / WASHER / UNTERLEGSCHEIBE	TYC 40	1
2	30.0508-001	2	KOLO NAPINACI / TENSIONING WHEEL / UMLENKRAD		1
3	30.0702-023	0	KROUZEK DISTANCNI / DISTANCE RING / DISTANZRING	P 2x40	1
4	30.0708-102	1	CEP NAPINANI / TENSIONING LUG / SPANNUNGSBOLZEN		1
5	30.8004-411	2	VEDENI / GUIDE / BACKENFÜHRUNG		1
6	30.ER258-004	0	DRZAK / HOLDER / HALTER		1
7	30.ER258-005	0	PRILOZKA / STRAP / LASCHE	P 4x42	1
8	30.ER258-006	0	TAHLO / GUY ROD / ZUGSTANGE	M6	1
9	30.ER258-007	0	STUPNICE / SCALE / SKALA	P 1x41	1
10	30.ER258-008	0	TRUBKA / TUBE / ROHR	TR 12x2	1
11	31.0104-006	0	HVEZDICE / STAR WHEEL / STERN	PLAST	1
12	90.001.25.028	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X10	1
13	90.004.2D.007	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M8X10	1
14	90.005.55.023	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M10X20	1
15	90.005.55.XXX	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8X50	1
16	90.012.50.019	0	SR. S VALC. HLAV. / ROLLER BOLT / ZYLINDERSCHRAUBE	SROUB M3X6	1
17	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE _ M6	2
18	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE _ M8	1
19	90.300.0Z.012	0	KOLIK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHARTET	KOLIK 8X50	1
20	90.350.0Z.002	0	PRUZINA TALIROVA / DISC SPRING / TELLERFEDER	35,5X18,3X2,0X2,8	11
21	95.001.018	0	LOZISKO / BEARING / LAGER	6205 2RS	2
22	95.750.001	0	KROUZEK KU / KU RING / KU-RING	16x1	2
23	95.800.012	0	SEGR HRIDEL. / OUTSIDE SAFETY RING / SICHERUNGSRING AUSSEN	POJISTNY KROUZEK 25	1
24	95.801.009	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 52	1

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

7.63. Válec zvedací / Lifting cylinder / Hebezylinder



Cislo Sestavy	Ver.	Nazev sestavy
201.BC237-450	0	VALEC ZVEDACI/LIFTING CYLINDER/HEBEZYLINDER

Poz.	Objednaci cislo	Ver.	Nazev polozky	Rozmer	Ks
1	30.0507-913	3	POUZDRO / SLEEVE / BÜCHSE	d 16	1
2	30.BC237-320	0	VALEC UPINACI / FIXING CYLINDER / SPANNZYLINDER		1
3	30.ER257-113	0	VIKO / COVER / DECKEL	D 45	1
4	30.ER257-512	0	PIST / PISTON / KOLBEN	D45	1
5	30.ER307-401	0	DISTANC / DISTANCE / DISTANZ	TR 21.3x2	1
6	30.ER307-403	0	PISTNICE / PISTON ROD / KOLBENSTANGE	D16	1
7	30.SC237-004	0	DRZAK / HOLDER / HALTER	HR 25x20	1
8	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	1
9	90.001.25.059	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X35	1
10	90.101.55.006	0	MATICE / NUT / MUTTER	MATICE M12	1
11	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	2
12	92.002.001	0	SROUBENI PRIME / DIRECT BOLTING / GERADE VERSCHRAUBUNG	G 1/4"	1
13	92.002.102	0	SROUBENI / BOLTING / VERSCHRAUBUNG	S-GEV-8LLR	1
14	95.801.005	0	SEGR DIRA / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 40	2
15	96.002.006	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	12x2 NBR 70SH	1
16	96.002.017	0	KROUZEK O DYNAMICKY / DYNAMIC O RING / O-RING DYNAMISCH	34x3 NBR 70SH	1
17	96.041.001	0	TESNENI / SEALING / DICHTUNG	d16	1
18	96.060.001	0	KROUZEK STIRACI / SCRAPER RING / ABSTREIFRING	KROUZEK STIRACI 16	1
19	96.082.001	0	KROUZEK TESNICI / SEAL RING / DICHTUNGSRING	10/14x1.5 CU	1
20	96.084.008	0	KROUZEK VODICI / LEAD RING / FÜHRUNGSRING	GR4300160	1
21	96.900.015	0	TESNENI PISTU / /	PT0200400-T46N	1

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