

Serie **Extend**



Extend 1120.1120

Operating instructions

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

Seriové číslo / Serien Nummer / Serial Number _____

Service and information

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7⁰⁰ – 16⁰⁰

Version:

1.02 / Oct. 2010
rev. 1

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EC Declaration of Conformity

1) We

BOMAR, spol. s r.o.
Těžební 1236/1
627 00 Brno, The 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. In the event of any device modification not approved by us this declaration shall lose its validity.

Name: **Band Saw**
Type range: **Extend 1120.1120**
Serial number:

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, Hydraulic, cooling system, el. switch board with control panel.

Technical data: Cutting rate 15–90.m.min⁻¹, cutting angle 0°
Total dimensions in mm (l × w × h) 5120×1700×3280 mm,
Supply voltage 3×400(230) V, total power requirement 21,5 kW, weight 12000 kg

The applied decrees of governments: **No. 17/2003 Coll.** (Directive 73/23/EEC)
No. 616/2006 Coll. (Directive 2004/108/EC)
No. 17/2003 Coll. (Directive 2006/95/EC)

The applied harmonized standards,

National standards and technical specifications: ČSN EN ISO 12 100-2:2004, ČSN EN 13 898 + A1:2009, ČSN EN ISO 13857:2008, ČSN EN 982 + A1:2008, ČSN EN 61000-6-2 ed.3:2006, ČSN EN 61000-6-4 ed.2:2007, ČSN EN 60204-1 ed.2:2007

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

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

2) ²⁾ The declaration of conformity was carried out in the cooperation with the TÜV CZ s.r.o., Novodvorská 994, 142 21 Prague 4 – Czech Republic, Identification number: 63987121 - Inspection body no. 4002

The inspection certificate no. 01.125.728/09/07/02/0 was issued.

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

Alfred Pichlmann, Managing Director



Point of issue, datum

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



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

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1. **Safety notes**

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

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

Attention!

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

1.1. Machine determination

The band saw **Extend 1120.1120** is determined for cutting and shortening of rolled bars and drawn bars and profiles from steels, stainless steels, non-ferrous metals and plastics **with zero cutting angle**.

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

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

Attention!

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

1.2. Protective suit and personal safety

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

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

Attention!

*Gloves you can use only at working material replacement (saw band)! The machine and accessories must be inactive!
If the machine is running, you must not wear gloves! It is dangerous, because some parts of the machine can catch gloves!*

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

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

Always wear ear protections! Most of the machines emit up to 80 dB and may damage your hearing.

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

Operate the machine only when you are fit enough to work. Illnesses or injuries diminish concentration. Avoid machine work, which may compromise the safety of you and your colleagues!

1.3. Safety notes for machine operator

Attention!

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

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

Keep instructions and orders about work safety!

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

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

Attention!

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

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

1.4. Safety notes for the servicing and repairs

Attention!

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

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

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

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

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

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

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

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

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

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

1.5. Safety 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.

1.5.1. Total Stop

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

If any damages or fault appears, immediately press TOTAL STOP button! Release the pressing button is possible by twisting of the upper part of the button.

1.5.2. Arm covers

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

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



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

1.5.3. Band saw cover

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



Never switch on the saw band driver if this cover is not mounted!

1.5.4. Saw band stretching and rupture inspection

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



The device contains limit switch. Check the stretching carefully and periodically – eventually adjust. Release the saw band by pressing left button. Press the right button to stretch the saw band.

1.6. Safety notes for the cooling

Attention!

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

1.6.1. Instructions for first help

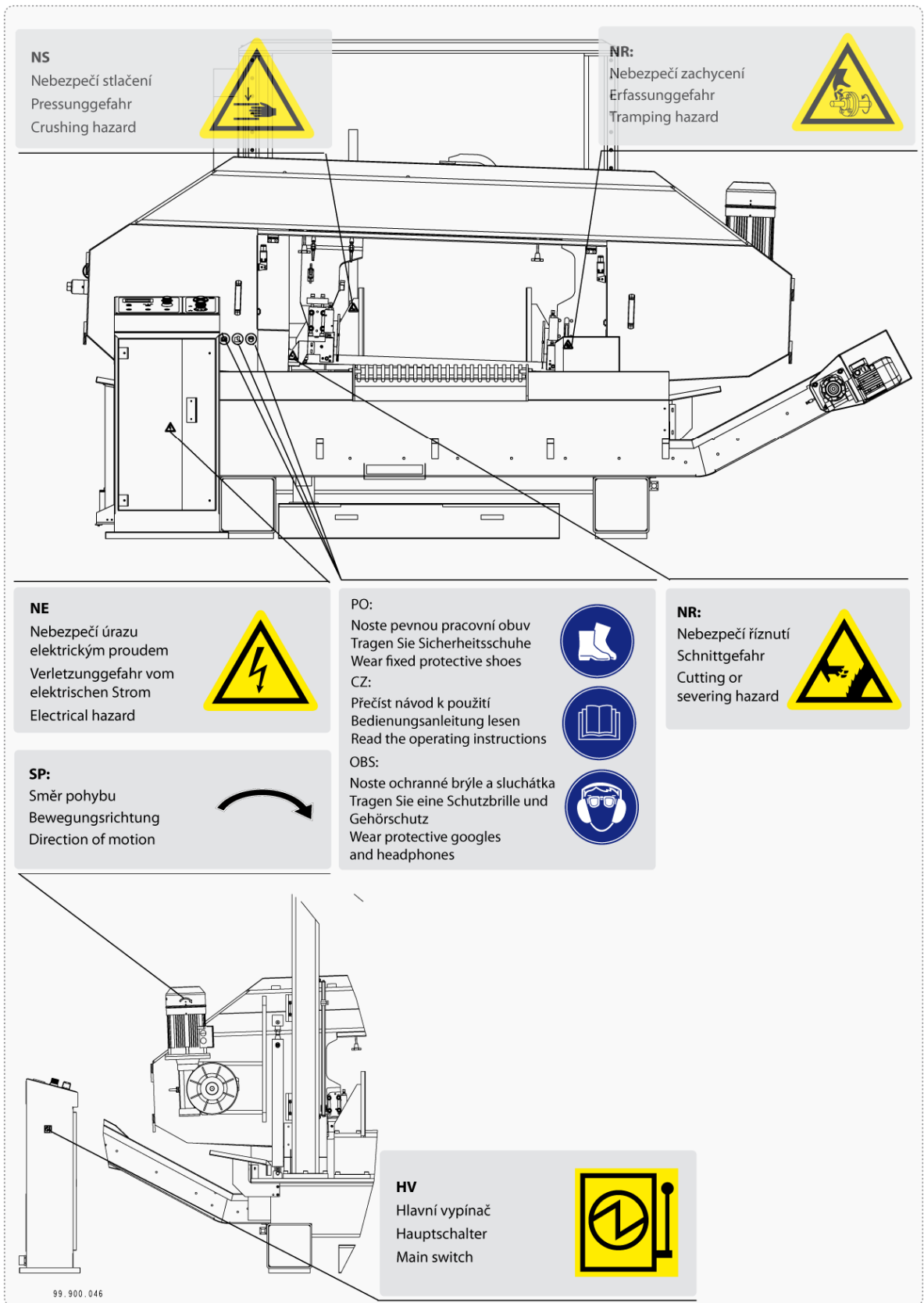
1. Pull off and safely remove polluted, soaked clothing.
2. For breathing, go out in the fresh air or look for first aid treatment.
3. Wash with water or use crèmes for contact with the skin.
4. Flush with water for eyes and look for first aid treatment.
5. For swallowing, drink a lot of water and induce vomiting. Look for medical help.

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



Machine label is placed on base.

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



2. **Machine documentation**

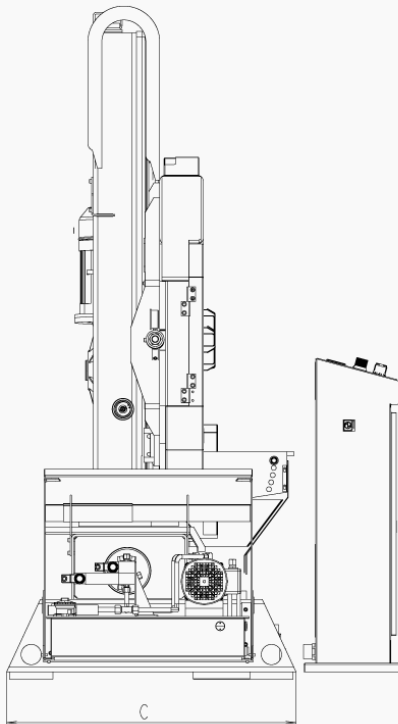
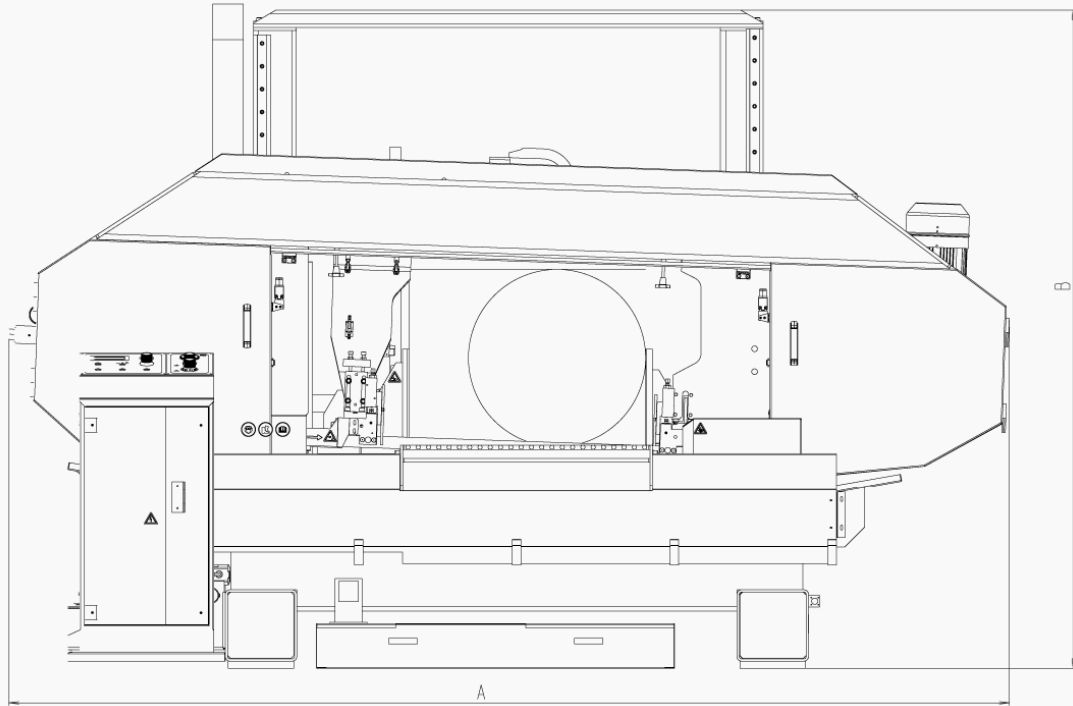
2.1. Technická data / Technische Daten / Technical data

Hmotnost stroje / Maschinengewicht / Machine weight:	
• Hmotnost / Gewicht / Weight	12 000 kg
Rozměry stroje / Maschinengröße / Machine size :	
• Délka / Länge / Length	5120 mm
• Šířka / Breite / Width	1700 mm
• Výška / Höhe / Height	3280 mm
Elektrické vybavení / Elektrische Ausrüstung / Electrical equipment:	
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400V, 50Hz, TN-C-S/TN-C
• Příkon / Gesamtschlosswert / Total Input	21,5 kW
• Max.jištění / Max. Vorschaltssicherung / Max. Fuse	63 A
• Krytí / Schutzart / Protection	IP 54
Akustický tlak / Schalldruckpegel / Acoustic pressure:	
• Extend 1120.1120	$L_{Aeqv} = 86$ dB
Pohon / Atrieb / Drive:	
• Typ / Typ / Type	MDRA 160-22J
• Napájení / Versorgungsspannung / Supply voltage	~3 x 400V, 50Hz
• Výkon / Leistung / Output	11 kW
• Jmenovitá otáčky / Motornendrehzahl / Nominal speed	1440 min ⁻¹
Hydraulické zařízení / Kühlmiteleinrichtung / Hydraulic equipment:	
• Typ / Typ / Type	SA4-60U-871-1699
• Výkon / Leistung / Output	5,5 kW
Chladicí zařízení / Kühlmiteleinrichtung / Cooling equipment:	
• Typ / Typ / Type	3-COA2-14
• Výkon / Leistung / Output	0,05 kW
• Obsah nádrže / Volumen vom Kühlmittel / Capacity	80 l
Rozměr pásu / Sägebanddimension / Band size:	
11120×67×1,6 mm	
Řezná rychlost / Schnittgeschwindigkeit / Cutting speed:	
15–90 m/min. (special 10-70 m.min⁻¹, 20-120 m.min⁻¹)	
Řezné rozsahy / Schnittbereiche / Cutting size:	
	

Level of acoustic pressure:

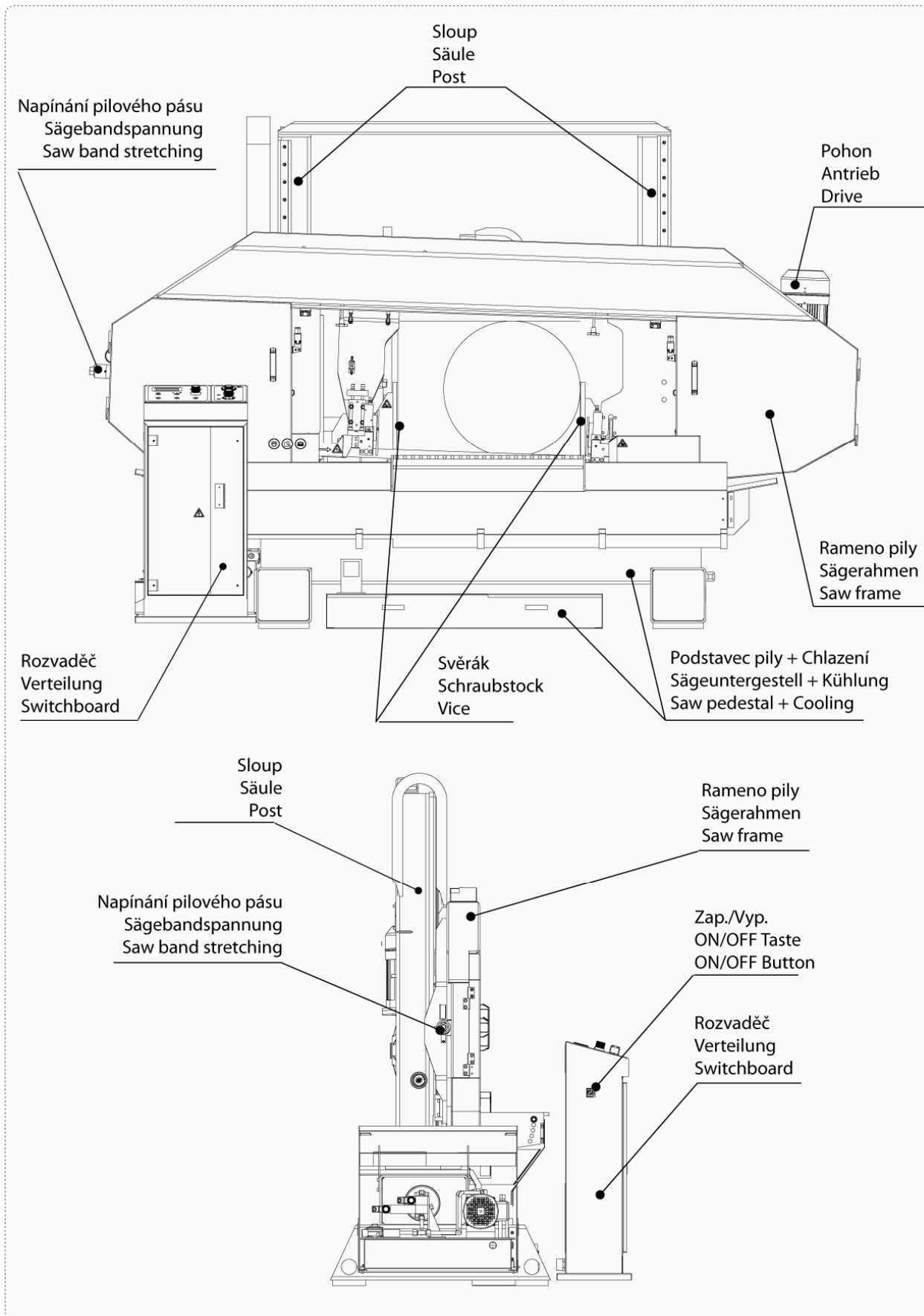
Equivalent level of acoustic pressure A (noise) at operator position are $L_{Aeqv}=86$ dB. Mentioned values are levels of emission which doesn't have to represent safe levels. Factors which influence real level of acoustic pressure on machine operator are: working place characteristics, cut material, saw band. These factors have significantly influence on acoustic pressure.

2.2. Rozměrové schéma /
Aufstellzeichnung /
Installation diagram



	A	B	C
Extend 700.520	3250	2230	1000
Extend 800.620	3500	2330	1000
Extend 900.720	4000	2600	1250
Extend1000.820	4350	3000	1400
Extend1120.1120	5120	3280	1700

2.3. Popis / Beschreibung / Description



2.4. Transportation and stocking

2.4.1. Conditions for transportation and stocking

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

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

2.4.2. Transport and stocking preparations

Close the vice and thoroughly oil all blank surfaces.

Lower the saw frame to the lowest position.

Make sure to empty the machine of all traces of the cooling agent.

Fasten all loose parts securely to the machine.

Pack and wrap the control desk securely to avoid damage during transport.

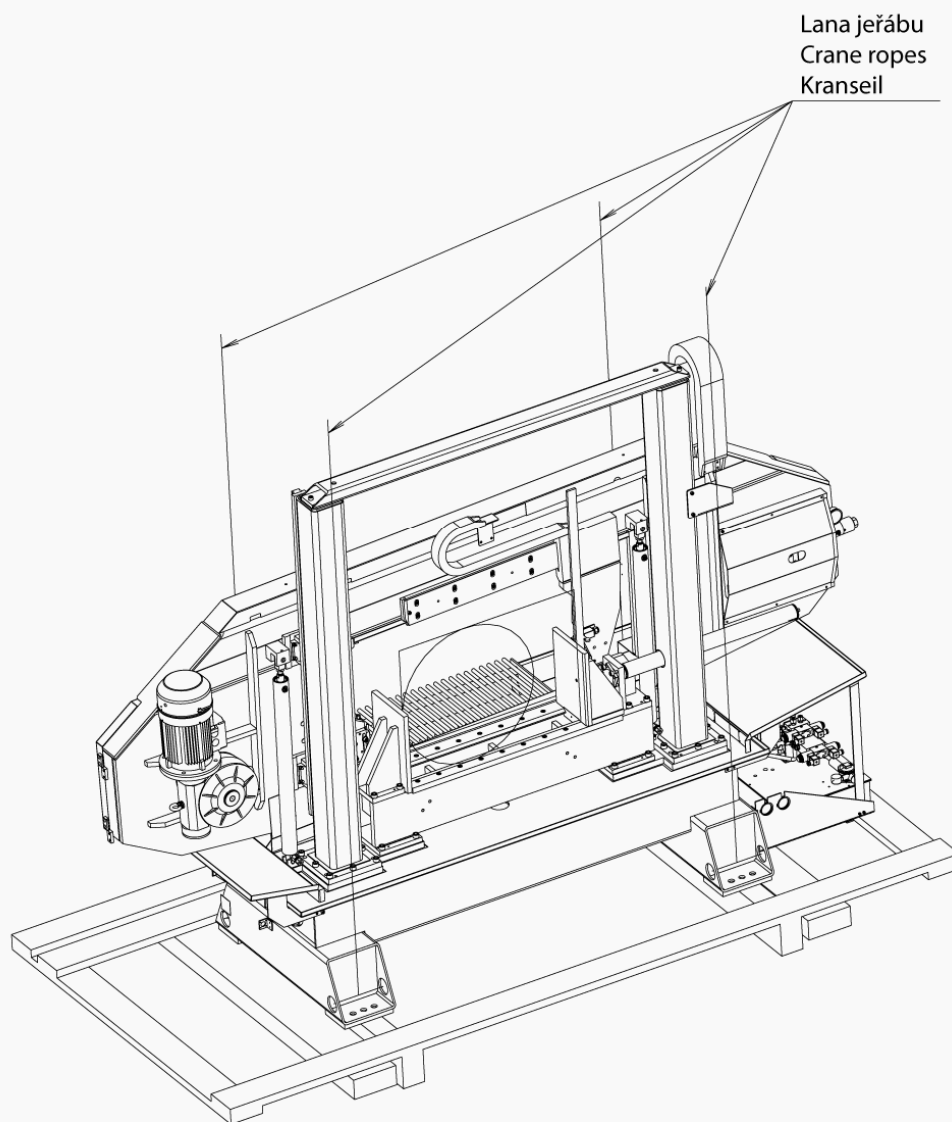
Fix the stickers stating the minimum approximate machine weight to at least five well visible places.

2.4.3. Transport and stocking

The machine must be secured during transportation. Screw on the palette to the floor of the van or the trailer. Be careful that the machine is not damaged during transportation. Store the machine only under conditions mentioned in the manual, to avoid damage of the machine.

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

2.4.4. Transportní schéma /
Transport schema /
Transport scheme



Extend 1120.1120

Lze transportovat pouze jeřábem
You can transport It only by crane
Sie können nur den Transport eines Kranes

2.5. Activation

2.5.1. Machine working conditions

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

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

- At temperature air from **5°C to 40°C**, the temperature average during 24 hours must **not exceed over 35°C**.
- At relative dampness of the air in the interval from 30% to 95% (not concentrate). Altitude must be lower than 1000 metres.
- Do not expose the machine to the radiation (for example microwave radiation, ultra-violet radiation, laser radiation, x-ray radiation). Radiation can cause problems with the machine function and deteriorating condition of the isolation.

Attention!

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

2.6. Band saw unpacking and assembling

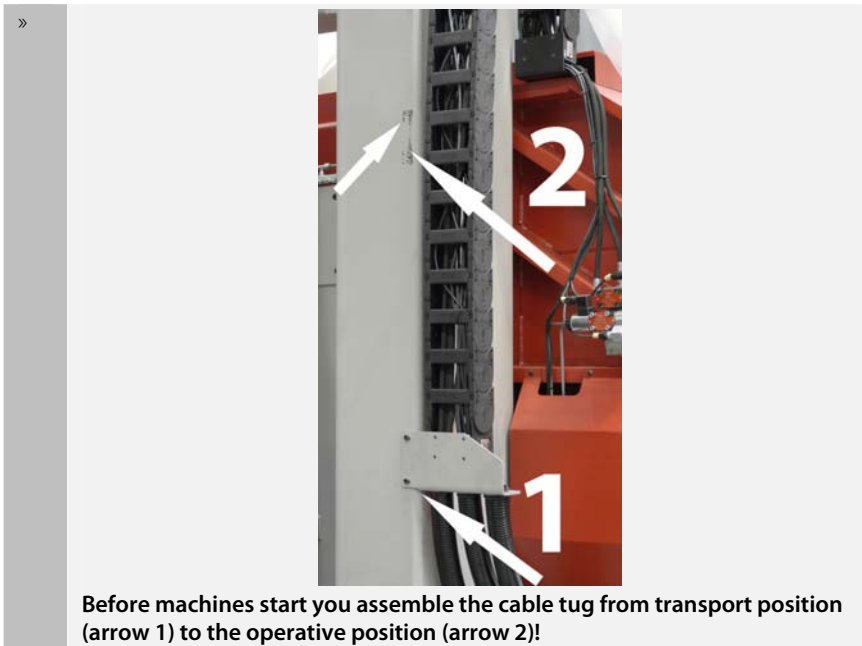
Remove the packing from the machine and unpack all parts.

Attention!

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

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





2.6.1. Machine installing and levelling

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

Minimal requirement:

machine weight – Extend 1120.1120 – 12 000 kg

+ weight of accessories

+ maximum weight of material

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

2.6.2. Machine disposal after lifetime

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

2.6.3. First run of the power pack

Before the first run check:

- The direction of the Pump, while run the power pack for max. 2seconds.
- The cooling fan of the motor has to rotate in the same direction as the arrow on the top of the motor cowling indicates.
- In case of wrong rotational direction, the electrical phase in the connection box is to be changed. This check is required after every disconnection from the power source
- Wiring matches with electrical and hydraulic diagrams

- the electric motors (pump and cooler) are properly connected and have the prescribed rotation
- the hydraulic accumulator with nitrogen gas to the specified value
- aux. elements work right (thermometer, level gauge, heater)

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

- In the short intervals activate an electric pump
- check for leaks and noise
- Bleed the hydraulic circuit
- if possible, test the circuit function with minimum load
- test the electrical equipment
- during operation monitor measuring equipment, noise, height and temperature of oil in the tank
- During this time a careful bleeding off for the whole hydraulic system is necessary. In case there is no bleeder port, the power pack will bleed itself after a while via the air breather on the tank or the return line filter.
- After multiple start-up.

2.6.4. Filling the reservoir with hydraulic oil

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

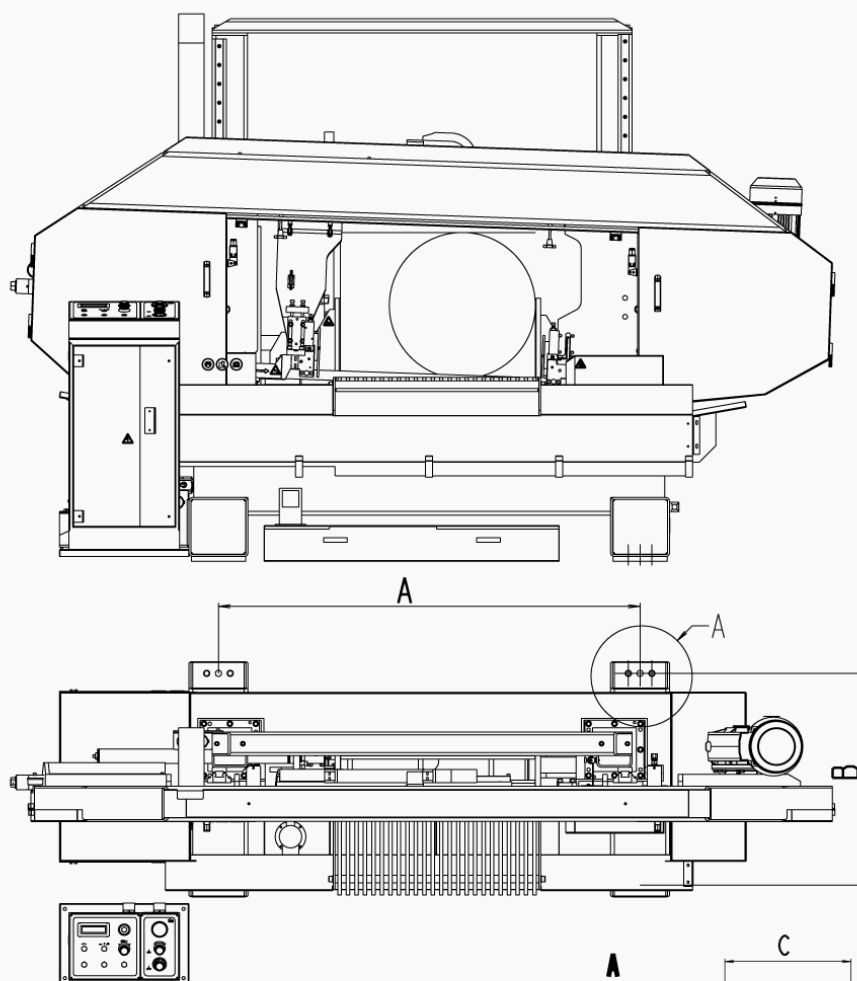
Power packs have to be filled up with clean, pre-filtered oil! The purity of the hydraulic fluid must correspond to the class 10 NAS 1638 (reachable with filter $\beta = 75$)!

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

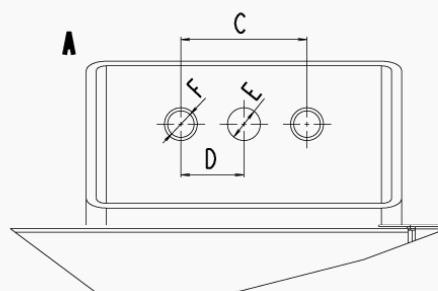
The maximum oil level will be shown on the upper marking at the dipstick or the sight level glass. Overfilling has to be prevent. The maximum filling rate of 15 l/min shouldn't be exceed.

Oil type	Kinematic viscosity ν in mm^2/s in relationship to the fluid temperatur					Freezing point
	0°C	20°C	40°C	60°C	80°C	
OH-HM 32	220	100	32	15	7	-40
OH-HM 46	400	170	46	18	11	-30
OH-HM 68	700	170	68	26	14	-28
OH-HV 32	180	67	32	17	11	-40
OH-HV 46	350	110	46	25	14	-36

2.6.5. Kotevní plan / Verankerungsplan / Grounding plan



	A	B	C	D	E	F
Extend 700.520	1665	900	100	50	ø26	2× M24
Extend 800.620	1790	900	100	50	ø26	2× M24
Extend 900.720	1950	1150	100	50	ø26	2× M24
Extend1000.820	2275	1300	100	50	ø26	2× M24
Extend1120.1120	2565	1600	100	50	ø26	2× M24



Kotvící materiál / Verankerungsmaterial / Grouding material

- 4× Kotvící šroub / Verankerungsschraube / Grounding screw M24, pos. E
- 8× Stavěcí šroub / Stellschraube / Set-screw M24, pos. F
- Do hloubky / In die Tiefe / Into deep 150 mm

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

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

± 10 mm / 1 m

Electrical connection

Attention!

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

Electrical parameters of the machine:

- Service voltage: ~ 3x400 V, 50 Hz, TN-C-S
- Total input / Max. fuse: 21,5 kW / 63 A

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

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

Note:

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

Note:

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

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

Attention!

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


2.6.6. Check the direction of the saw band



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

2.6.7. Check machine connection into electrical network

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



2.7. Filling of the cooling system

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

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

2.8. Check machine function

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

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

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

Start the machine with the cooling pump and let it run without load until the cooling system will be filled with cooling liquid. As soon as the cooling liquid starts to escape from the nozzles of the cooling system, the cooling system is ready for the operation. Carry one cycle of cutting without material. Check, if the machine runs with no irregularities. If all machine functions are right, the machine is ready for operation..

2.9. Saw band

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

2.9.1. Saw band size

11120×67×1,6 mm

2.9.2. Selection of the saw band tooth system

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

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

BOMAR for recommended Variable tooth system for band saw.

2. *Variable tooth system* – tooth pitch is variable. Variable tooth system is used for profiled materials and bundle cutting. Variable tooth pitch lowers vibration of the saw band, increases service life of the saw band and quality of the cutting area.

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



Footnotes:

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

Examples of the tooth system marking:

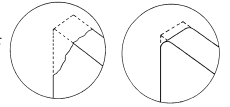
32 S – number „32“ means 32 teeth on one inch (that means constant tooth system), letter „S“ marks teeth with zero angle of the tooth.

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

2.9.3. Saw band running-in

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

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



Note: Run regrinding saw bands too.

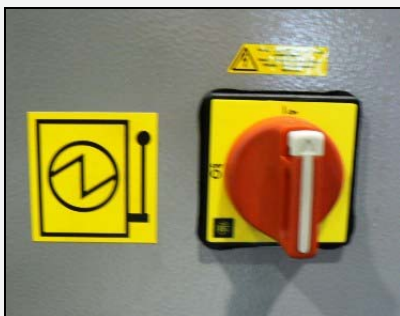
2.9.4. Tables for teeth selection

SHAPED MATERIAL ($D_p, S = \text{mm}$)						
Note: Table shows tooth system selection for cutting one piece of the profile. For cutting of more pieces of the profiles (bundle), you must think of the size of the wall as double size of the wall of one profile (that means, size „S“ equates to 2xS). In table, there are tooth systems constant and variable.						
Size of the wall S [mm]	Tooth system (Z_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 ($D = \text{mm}$)						
Constant tooth system		Variable tooth system				
length of the cut D	tooth system (Z_pZ)	length of the cut D	tooth system (Z_pZ)			
to 3 mm	32	to 30 mm	10-14			
to 6 mm	24	20-50 mm	8-12			
to 10 mm	18	25-60 mm	6-10			
to 15 mm	14	35-80 mm	5-8			
15-30 mm	10	50-100 mm	4-6			
30-50 mm	8	70-120 mm	4-5			
50-80 mm	6	80-150 mm	3-4			
80-120 mm	4	120-350 mm	2-3			
120-200 mm	3	250-600 mm	1,4-2			
200-400 mm	2	500-3000 mm	0,75-1,25			
300-800 mm	1,25					
700-3000 mm	0,75					

3. **Machine control**

3.1. Starting the band saw

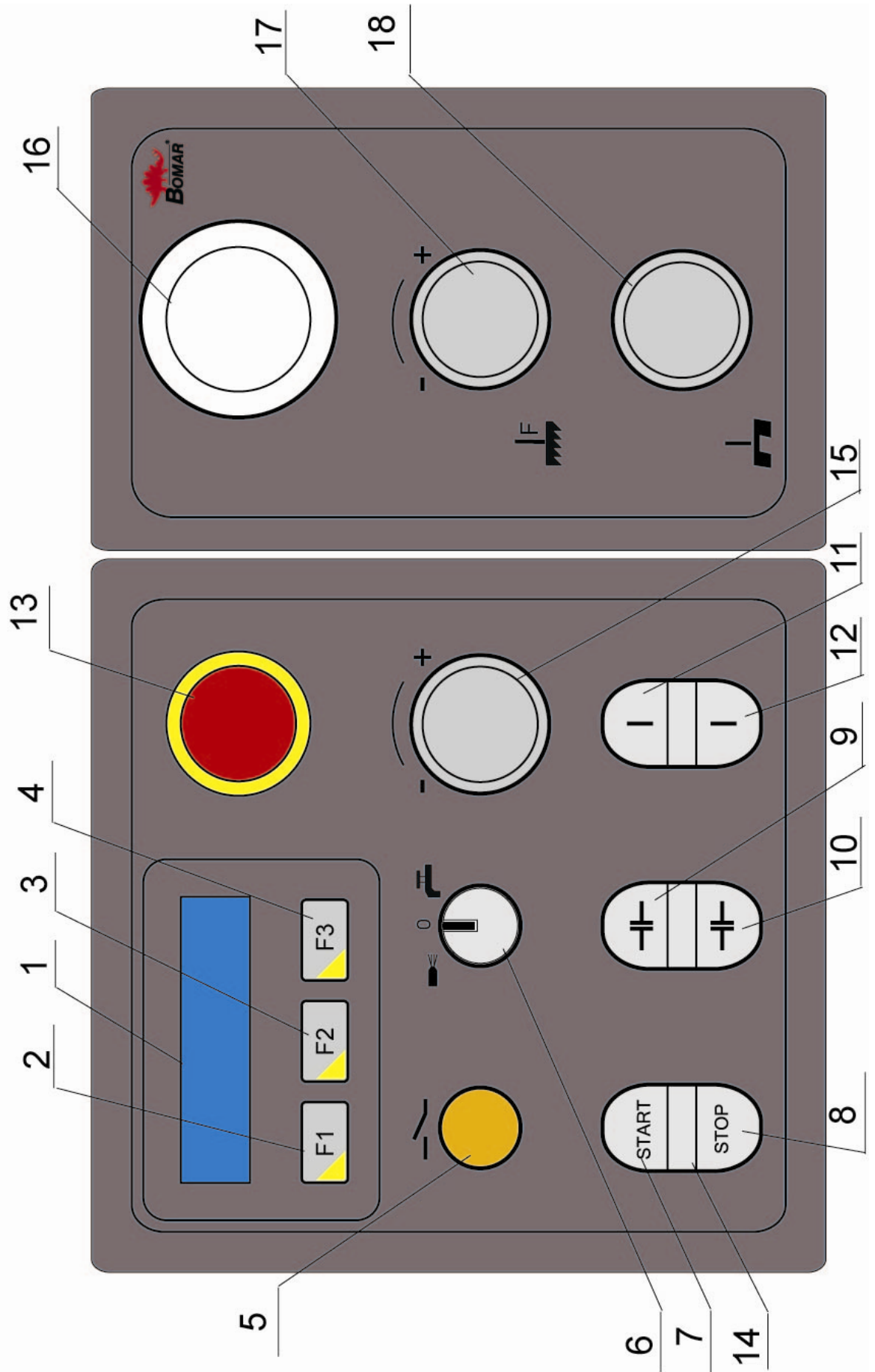
- » 1. Switch on the main switch of the band saw. The main switch is situated on the side of the switchboard.





2. Switch on the safety circuit of the band saw (button 5 – control panel of the band saw).



3.2. Control panel



1	Display Onto display are described all processes.
2	F1 – button Function of this button is described lower in these operating instructions.
3	F2 – button Function of this button is described lower in these operating instructions.
4	F3 – button Function of this button is described lower in these operating instructions.
5	Safety circuit switching on Switch on the safety circuit by pressing button.
	Cooling system selection You can select from three possibilities:
6	 Cooling with Microniser
	0 Without cooling
	 Cooling with water
7	START - Switch on the semi-automatic cycle By pressing F1 and button 7 is starting only the band saw drive. It is stopped with button 8.
8	STOP - Switch off the engine of the band saw It stops the engine of the machine. With holding button STOP during the time 2 second is stopped hydraulic engine (if it running). The hydraulic engine is started automatic on switch whatever motion.(Open vice, close, Lift the saw arm, lower) or the cycle is starting with button Start.
9	Close the vice When this button is pressed, the vice is opened. This button may be used in semi-automatic cycle.
10	Open vice Vice is opened after pressing this button.
11	Lift the saw arm
12	Lower the saw arm If this button is pressed with 11 button together, the saw arm is starting chute on the cutting material with accelerated shift. ATTENTION! If you will be running with accelerated shift until the cut, the saw band may be damaged.
13	TOTAL – STOP button In emergency causes the machine must be immediately switched off.
14	LED- control lamp blink by cycle.
15	Frequency convertor Turn to change the speed of the saw band.
16	Cutting pressure manometer
17	Cutting pressure regulation Adjust the arm pressure to the cut.
18	Governing valve Adjust the speed of the arm sinking to the cut by governing valve. Notice: If you keep closing the throttle valve too tightly, the valve seat may wear off which causes its leakage. Therefore, close the valve always gently.

Switch Laser-Liner (Special accessory)



Deblock

Use the deblock to replace the saw band.

Position 0 – operating mode. During the running of the machine, the switch must be in position **0**.

Position 1 – saw band replacement. In this position it is possible to run the hydraulics and strain and release the saw band despite of the open covers. The functions activate only by buttons on the arm. Other functions are blocked.



3.3. Machine control

3.3.1. Preparative mode

- »
1. Entrance to menu
 - Press button **F2**. Hydraulic must be off.
 2. Cutting parameters
 - You can select, if you want to stop the saw band drive in upper or lower position of the saw arm, or do not stop the drive.
 - If you strain button **F2**, the saw band drive will be stopped **in the bottom** position of the saw arm or **in the top** position.
 3. Interrupting the cycle selection
 - Press button **F2** to preselect the cycle interrupts.
 - Press button **F3** to move to the next menu.
 4. Vice parameters (vice opening)
 - Press button **F3** to entrance to menu: Vice parameters.
 - By repeated pressing button **F2** you select:
up ⇌ down ⇌ not release
 - Press button **F3** to move to the next menu
 5. Stop time of the hydraulics
 - To set the stop time, press button **F2**:
5 min. ⇌ 30 min. ⇌ Do not Turn-OFF
 - Press button **F3** to move to the next menu
 6. Swarf conveyor
 - Swarf conveyor will be automatic stoped and starting with saw band drive.
 7. Language version selection
 - By repeated pressing button **F2**, select the language :
Czech ⇌ German ⇌ English
 8. Press button **F3** to ending **Preparative mode**

3.3.2. Semi-automatic cycle

1. Lift the saw arm to the top position by pressing button **11**.
2. Open the vice by pressing button **10**.
3. Clamp material to the vice by pressing button „9“.Vice of band saw clamps material, lenght stop jump away , the arm of lenght stop lift up and machine starts to cut .
4. Lower the frame **about 10 mm above the material** by button „12“.

Attention!

Do not move the saw frame to the material, when the saw band driving is not running! Do not move the saw frame to the material with accelerated motion! The saw band can be damaged!

5. Select the starting height of the arm with button **F1** for Semi-automatic cycle.
6. Set the saw band speed according to the kind of the cutting material.
7. Set the speed of the arm sinking by adjust governing valve „18“.
8. You can clear the register of the performed cycles by button **F3** -2 second stop on.
9. Press button „7“ (**START** of semi-automatic cycle).

Attention!

Press button „5“ (STOP of semi-automatic cycle). In risk of injury or damage of the band saw, press the emergency button TOTAL STOP “10”!

10. The band saw clamps the material to the vice and vice of band saw clamps material, lenght stop jump away, the arm of lenght stop lift up and machine starts to cut.
11. Open the vice. If the vice is not opened, you can open it by button „10“. Remove the blank.
12. You can repeat whole process.

3.3.3. Cycle breaking

- »
- **STOP button**
Semi-automatic cycle is interrupted by pressing button „8“ (**STOP** of the semi-automatic cycle).
The arm is lifted to the top position and the saw band drive is stopped..
By pressing button **7 – START of the semi-automatic cycle**, you can start the cycle.
 - **TOTAL STOP button**
In case of the risk, press button **TOTAL STOP „13“**.
After pressing **TOTAL STOP** button, saw band drive is immediately broken and the arm sinking is stopped.
 - **Reactivation**
 1. Turn button **TOTAL STOP** according to the arrows (on the button).
 2. Switch on the safety circuit by button „5“.
 3. By pressing button „7“ (**START** of the semi-automatic cycle), you can start the cycle. The arm is lifted to the top position and the saw band starts the cycle.

3.4. Band saw adjusting

3.4.1. Adjusting band guides

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



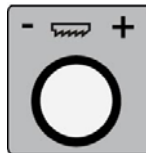
1. Press button **8** to switch off the hydraulics – **2 second stop on**.
2. Release the stopping lever of the listel (see picture).
3. Move the left part of the guide apparatus so that the left guide cube edge is as close to the cut material as possible.

Note:

Position of the guiding cubes is secure by the limit switch. The limit switch is activated after switch lever hits the listel.

4. Tighten the lever of the gib and check the guide cube setting for possible collision with binding table or vice jaw.

3.4.2. Cutting speed adjusting



Speed of the saw band is possible change from **15 to 90 m/min**. You can effect to adjusting speed of the saw band following.

Use the frequency convertor **15** to adjust requested speed of the saw band. You can see the speed on display.

Attention!

At least once a week set the saw band speed from the lowest up to the highest speed.

3.4.3. Adjustment of pressure to the cut

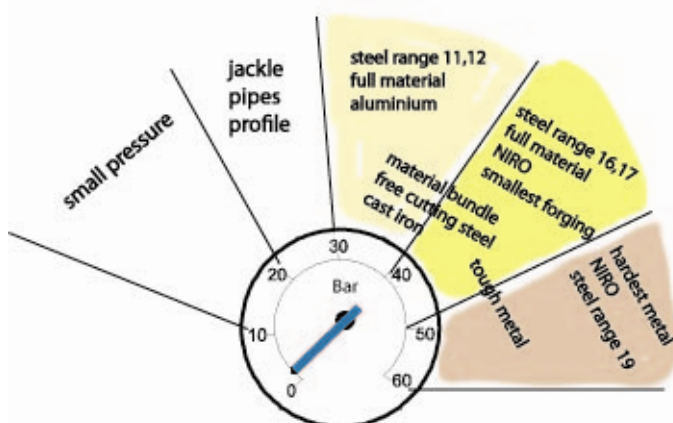
The band saw **Extend 1120.1120** is equipped with cutting pressure regulation on the both guiding cubes.

Pressure adjusting is performed with regulating wheel (position **17** – control panel). The pressure to the cut is displayed on the cutting pressure manometer **16**.



Lower pressure to the cut – turn the wheel against the clock's direction.

Diagram for cutting pressure on ADFR (automatic downfeed regulation),
Hydraulic pressure recommended on the aggregate unit 6 Mpa



Higher pressure to the cut – turn the wheel to the clock's direction.

Pressure into cut is set by regulation, pos. 17.

3.4.4. Speed adjustment of the arm lowering

Set the speed of the arm lowering to the cut by control valve (position 18 – control panel).

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

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

Notice:

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

3.4.5. Saw frame lift stop setting

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



1. Press button 11. Lift the saw arm to the upper position.
2. Insert a material into the vice. Carefully lower the saw arm button 12 to the material (11+12 accelerated shift)..
3. Stop the saw arm 10mm above the material.

4. Saw arm adjusting is sensed by the sensor.

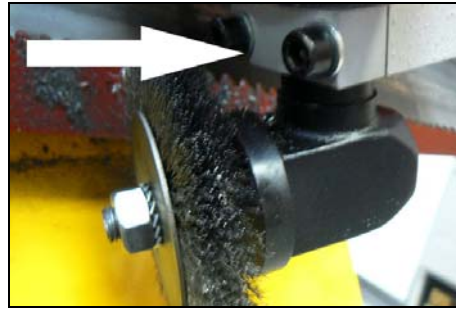
3.4.6. Setting the upper clamping

The band saw **Extend 1120.1120** is equipped with upper clamping on the main vice of the band saw.

The upper clamping operates automatically with the main vice. Use the valve (see arrow) to switch off the upper clamping.

3.4.7. 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. Release the fixative screw of the brush. It is possible to move with the brush.

Chyba! Objekty nemohou být vytvořeny úpravami kódů polí.

2. Set the brush to the saw band according to the picture.

Attention!

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

3. Tighten the fixative screw.
4. In case, that the brush is not turned right (driving wheel slips on the driving wheels of the saw band), push by means of the screw (see arrow) driving wheel of the brush to the driving wheel of the saw band.

Attention!

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

3.5. Material insertion

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

3.5.1. Handling agent selection

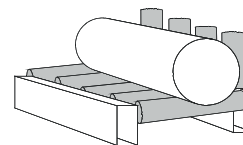
- Use the strong handling agents to lift and transfer the material!
- Handle with the material only with the lift truck or use the suspension strands and the crane!
- Do not use the lift truck or crane in case that you do not have the license to handle with it!

3.5.2. Insertion

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

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

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



3.5.3. Bundle material cutting

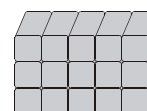
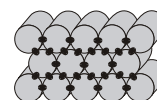
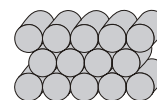
If you want to cut the material in the bundle, there are suggestions for the positioning of bundles

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

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

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

Square material bundle:



Attention:

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

4. **Machine service**

4.1. Saw band dismantling

1. Press button **11** to lift the saw arm to maximum position.
2. **STOP hydraulic** with button **8**.
3. Switch Deblock **16** to position 1.



4. Open the covers of both driving wheels.



5. Dismantle left protective cover of the band (arrow). Cover is fastened by screws.
6. Release screw tightening brush position.



7. Release the saw band by pressing left button.
8. Pull down the band from the wheels.
9. Pull up the saw band from the guiding cubes.

4.2. Saw band installation

1. Prior to installation, clean all track wheels, guide cubes and inner side of the arm thoroughly of all traces of chips and dirt. *Keep in mind the teeth direction when installing the saw band.*
2. Insert new saw band in the guide cubes. Make sure the saw band runs between both guide rollers and it is pushed all the way to the top.
3. Put the saw band on both guide wheels. Make sure that the saw band ridge fits tightly to the wheel rim. Then push the saw band as far back as possible.
4. Stretch the saw band by means of the screw, that the band did not falls from wheels.
5. Press the right button to stretch the saw band.

6. Install yellow protective cover of the band.
7. Move the brush to the saw band. Tighten the securing screw.
8. Close the covers of both driving wheels.
9. Turn the deblock **16** to position **0**.
10. Saw band installation is finished.

4.3. Saw band stretching and inspection

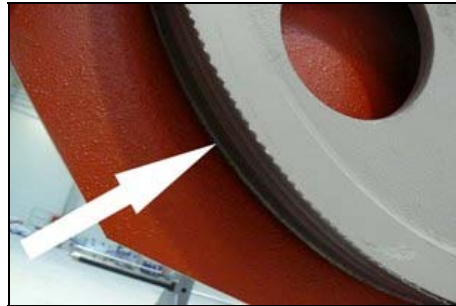
Right saw band stretching is one of the most important criteria's, which influents accuracy and saw band service life. Stretch the saw bands according to the selected saw band and the band saw. Keep the recommendation of your manufacturer.

4.3.1. Saw band stretching

- Switch on the hydraulic aggregate after the saw band installation check the saw band stretching on the tenzomat.
- Use the screw to stretch the saw band until it is stretched to the recommended value.

4.3.2. Saw band inspection

Check the saw band in the guiding cubes and on the wheels.



1. Check, if the saw band is right in the guiding cubes..
2. Switch on the saw band drive and then after 10 seconds switch off saw band drive. If the saw band drive is not possible to switch on, set the limit switch of the saw band stretching.
3. Switch off the main switch.
4. Open cover(s) of the wheels and check position of the saw band on the both wheels..
 - If the distance between backside of the saw band and the offset wheel is **1 mm**, setting is right..
 - If the distance is bigger than **1 mm**, or the saw band is on the offset of the wheel, set the saw band.
5. Close cover of the saw band.

4.3.3. Saw band run setting



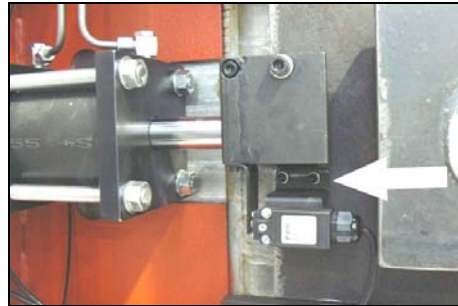
Saw band run is set with screw (arrow) in the stretching cube on the saw arm. Right distance rear part of the saw band from wheel rim is **1 – 3 mm**.

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

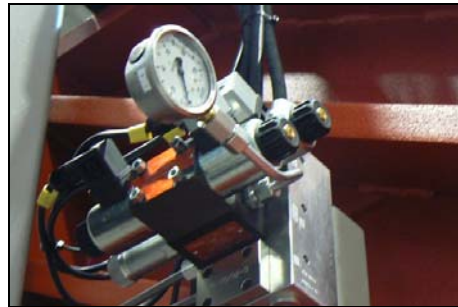
Check saw band run adjustment again.

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

After the saw band is replaced, the limit switch setting must be checked out. If the limit switch is not set correctly, the band is stretch too much or it is to loose.



- Release 2 screws and check the limit switch setting -on-state.



- Manometer indicates the pressure at cylinder of band tensing (60 Bar).

4.5. Saw arm lower position stop adjustment



The lower stop limits the lowest position of the saw arm. This stop point has to be checked at least once a month. If the lower stop point is wrongly adjusted, the cutting table can be deeply cut or the material will not be cut completely.

1. Lift the saw frame to the top position.
2. Release the nut of the screw and set it on the desired value.
3. Secure the screw with nut again.
4. Set the limit switch of the saw frame lower position.

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

The limit switch of the saw band stretching is set from the manufacturer. Is not necessary to set it.

4.7. Limit switch adjustment of the saw frame lower positron

If we had adjusted lower stop point of the saw frame, the limit switch adjustment inspection is required.

4.7.1. Setting inspection

Lower the saw frame to the lowest position. If the saw frame is on the lower stop and the limit switch responds, the limit switch adjustment is correct. Make the limit switch adjustment in failing which.

4.7.2. Limit switch setting



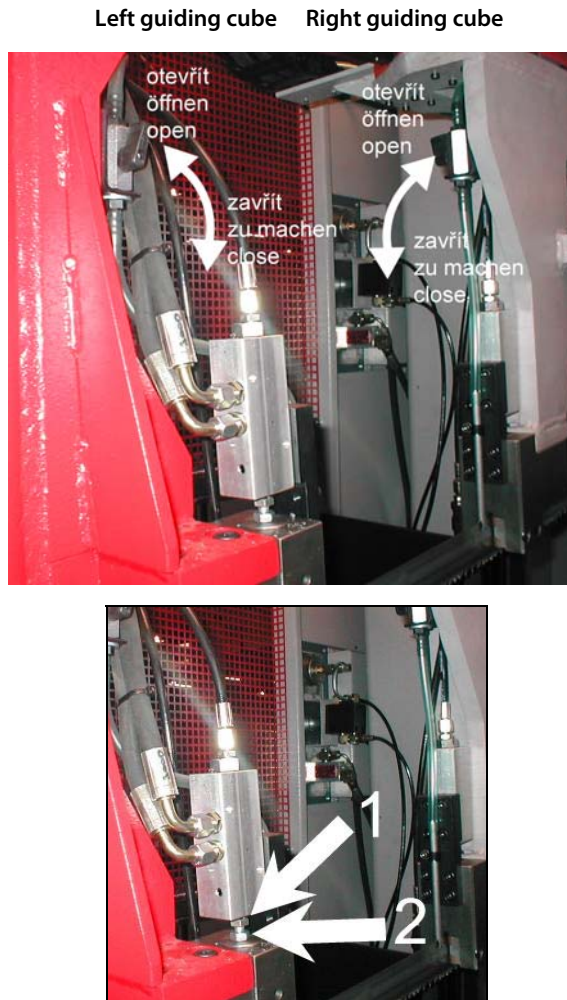
1. Release the nut of the stop screw of the limit switch and screw the screw.
2. Lower the saw frame to the lower stop and switch on the saw band drive (**button 7**).
3. Screw out the stop screw of the limit switch, until the saw band drive is not stopped.
4. Secure the screw with nut and check limit switch adjustment again.

4.8. Adjustment of the cutting pressure regulation

This chapter describes the basic speed setting of arm sinking to the cut for idle run. Saw is equipped with cutting pressure regulation on both guiding cubes. Cutting pressure regulation is set separately on every guiding cube.

4.8.1. Setting on the right guiding cube

1. Close the tap on the left guiding cube. Let the tap opened on the right guiding cube.



2. Screw off the set – screw on the right guiding cube to the stop, the valve is blocked (pos1). You can move by arm only up, because the arm movement down is blocked with pressure regulation valve.
3. Press button „Arm down“ and slowly screw on the set – screw on the right guiding cube. Screw by set – screw until the optimal speed of the arm sinking is not reached. The optimum speed of the arm sinking to the cut from maximum lift until lower stop is about 55 seconds.
4. Secure the set – screw with nut (pos. 2) for reaching of the optimum speed of the arm sinking.
5. Pressure regulation on the right guiding cube is set.

4.8.2. Setting on the left guiding cube

6. Open the tap on the left guiding cube. Close it on the right guiding cube.
7. Set the cutting pressure regulation on the left guiding cube in the same way.
8. Open taps on both guiding cubes after pressure regulation setting. **ATTENTION!** Both taps must be opened during operation!
9. Setting is ended.

4.9. Cooling agents and chips disposal

The quality of the cooling agent will deteriorate due to:	If the solution is too weak:	If the solution is too strong:
<ul style="list-style-type: none"> • use of contaminated water • impurity • outside oil contamination (hydraulics, gears) • high operating temperatures • lack of air circulation • wrong concentration 	<ul style="list-style-type: none"> • corrosion protection is diminished • lubrication decreases • microbial attack is more likely 	<ul style="list-style-type: none"> • the cooling ability is decreased • foam behaviour increases • emulsions stability deteriorates • sticky residue develops

4.9.1. Coolant device inspection

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

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

Note:

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

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

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

* According to manufacturers' instructions

4.9.2. Chips disposal

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

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

4.10. Hydraulic, Greases and oils

4.10.1. Gearbox oils

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

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

Attention:

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

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

Band saw	Gearbox oil	Capacity
Extend 1120.1120	Shell Tivela S 320	1 l
Swarf conveyor	Shell Tivela S 320	0,075 l

Comparative table of the gearbox oils

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

4.10.2. Lubricant greases

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

Comparative table of the lubricant greases:

Manufacturer	Type of the lubricant grease
BP	Energrease LS - EP
DEA	Paragon EP1
Esso	FETT EGL 3144
	Beacon EP 1 Beacon EP 2
FINA	FINA LICAL M12
Klüber	Microlube GBO
	Staburags NBU8EP Isoflex Spezial
Optimol	Optimol Longtime PD 0, PD1, PD2

Manufacturer	Type of the lubricant grease
Shell Aseol AG	ASEOL Litea EP 806-077
Texaco	Multifak EP1

4.10.3. Lubrication

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

Lubrication place	Lubrication
	<p>The linear guiding of the saw arm – lubricate with grease once a three months (see chapter Lubricant greases). Use 3-5g grease on the every carriage of the linear guiding. Use the grease gun to the lubrication. Drive 3-5 times whole line of the linear guiding during lubrication.</p>
	<p>The guiding cubes leading – grease with oil from both sides once a week.</p>

4.10.4. Hydraulic oils

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

Use oils with specification DIN 51524-HLP, ISO 6743-4 and viscosity grade ISO VG 46 in hydraulic aggregates. Hydraulic oils quantity – see chapter **Hydraulic oil level check**.

Note:

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

Comparative table of the hydraulic oils

Manufacturer	Type	Manufacturer	Type
Agip	Oso 46	Ina	Hidraol 46 HD
Aral	Vitam GF 46	Klüber	Lamora HLP 46
Avia	Avilub RSL 46	Hungary	Hidrokomol P 46
Benzina	OH-HM 46	Mobil	Mobil DTE 25
BP	Energol HLP 46	ÖMV	HLP 46
Bulgaria	MX-M/46	Poland	Hydrol 30
Castrol	Hyspin AWS 46	Rumania	H 46 EP
Čepro	Mogul HM 46	Russia	IGP 30
DEA	Astron HLP 4hy6	Shell	Tellus Oil 46
Elf	Elfolna 46	Sun	Sunvis 846 WR

Manufacturer	Type	Manufacturer	Type
Esso	Nuto H 46	Texaco	Rando HD B 46
Fam	HD 5040	Valvoline	Ultramax AW 46
Fina	Hydran 46		

4.10.5. Hydraulic oil level check



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

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

4.10.6. Hydraulic unit service

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

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

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

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

4.11. Machine cleaning

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

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

4.12. Worn pieces replacement

4.12.1. Seznam opotřebených dílů Verschleißteilleiste Worn parts list

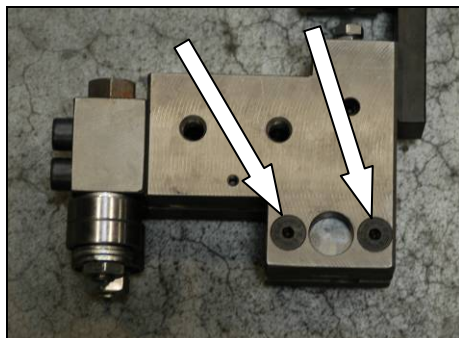
Objednací číslo	Název položky	ks
Bestell - Nr.	Bezeichnung	Menge
Reference No.	Item	Pcs.
30.6405-007	Kolo hnací / Antriebsrad / Driving wheel	1
30.6206-104	Síto / Sieb / Pump screen	1
49.250.017	Kartáček / Bürste / Brush	1
91.020.016	Čerpadlo chlazení / Kühlmittelpumpe / Coolant pump 12 M2	1
91.173-007	Koncový spínač / Endschalter / Limit switch FRG01-M02	1
99.021.037	Řemen / Riemen / Belt SPA -1932	1

4.12.2. Pushing bearing replacement

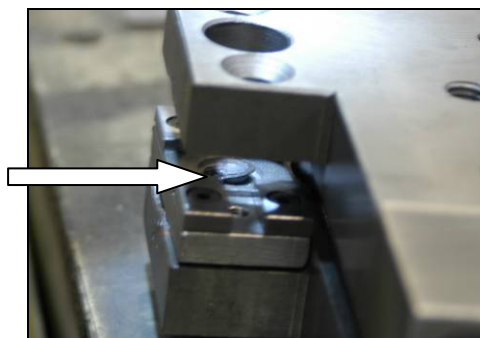
If it is impossible to adjust the bundle gripping assembly and the pushing bearing is worn, it needs to be replaced



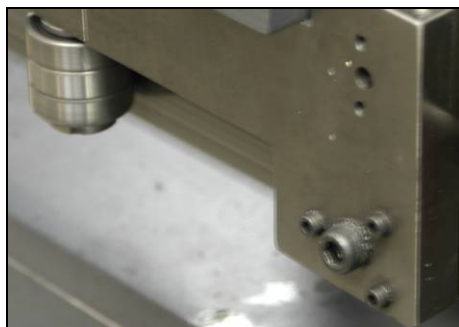
1. Dismantle the saw band.
2. Disconnect the hose from the cooling agent eventually unmount microniser.
3. Unmount guiding cube from holder on saw.



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



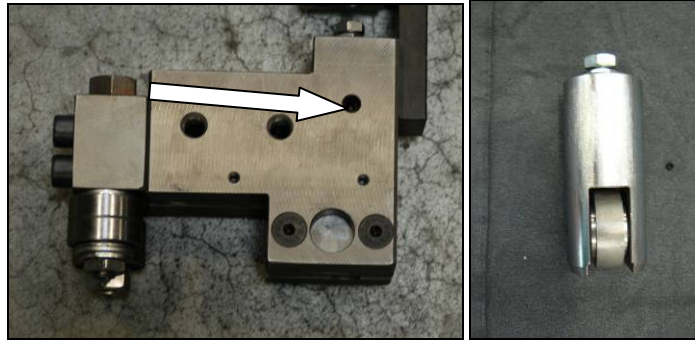
6. Remove retaining ring. Then unmount adjusting screw.



7. Remove other three screws.



8. Carefully remove the hardmetal. Remove disc springs.



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



10. Insert the pivot to the vice.

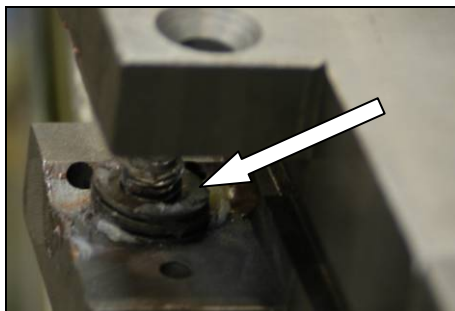
Attention:

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

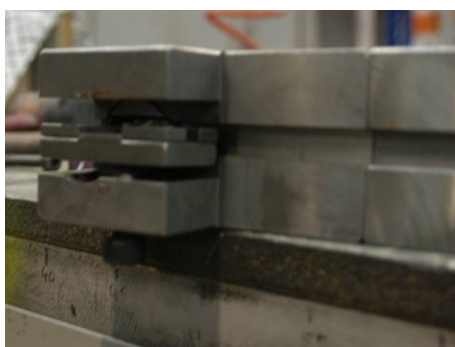
11. Remove the bearing pivot from the bearing holder by means of the swager.



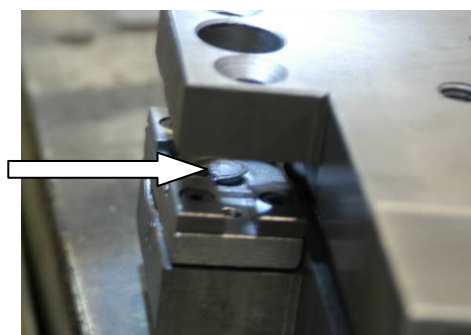
12. Remove the worn bearing and other damaged parts.
13. Fasten the holder to the vice.
14. Insert the bearing and washers and return the pivot to its original place.
15. Place the assembled piston guide cube. Piston must move freely in a guiding cube.
16. Worm screw defines the operation of the piston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



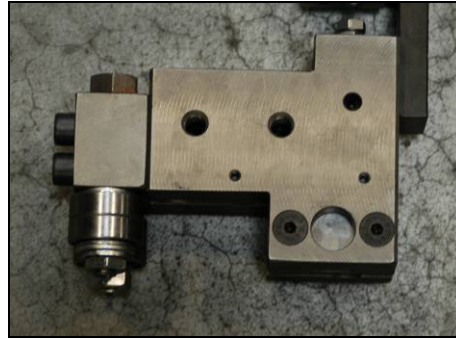
17. Insert the disc springs. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the harmetal carbide.



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



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



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



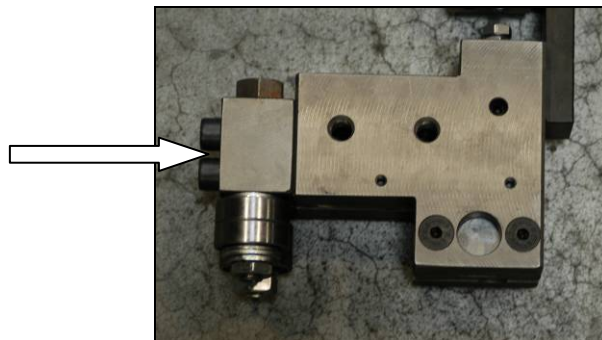
23. Using a short piece of the blade used on the machine, adjust the width of the gap between the guides. Loosen the central screw. Set the gap by central adjusting screw. Belt guides must walk freely without large and will also not scrub.

4.12.3. Saw band guiding pulleys replacement

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

Attention:

Guiding pulleys must be replaced together on both guiding cubes!



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

Attention:

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



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



5. Change all bearings and other worn parts.
6. Install eccentrics to the cubes. Install components on both eccentrics in given order. Put bearings by means of the preparation on eccentrics.

Attention:
 Do not replace the eccentrics placing in the cube.



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



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

- Set the eccentrics by means of the wrenches, the saw band must run in the centre. Guide pulleys must not press too much on the band, but must spin freely during the band run

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

- Tighten nuts on both eccentrics.
- Remove the testing piece of saw band from the cube lead. Install the guiding cube on the machine.

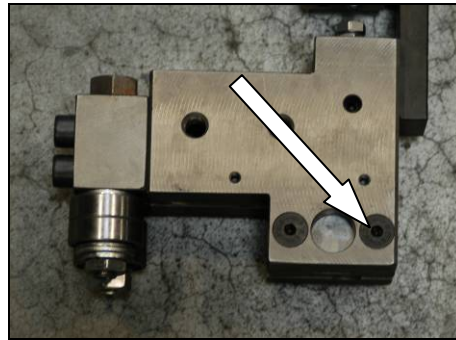
4.12.4. Hard metal guides replacement

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

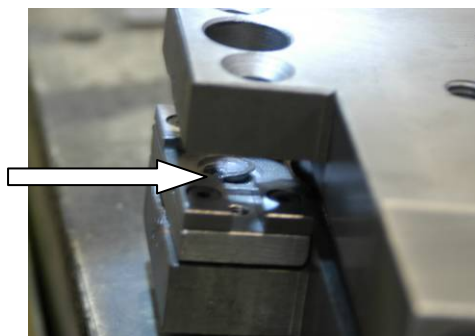
ATTENTION!

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

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



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



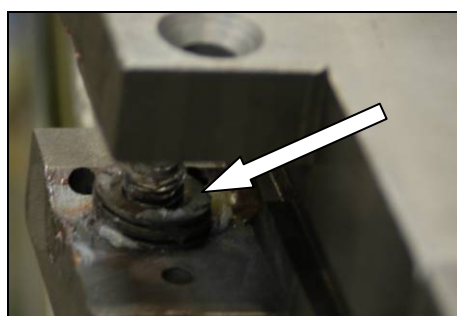
- Remove retaining ring. Then unmount adjusting screw.



7. Remove other three screws. .



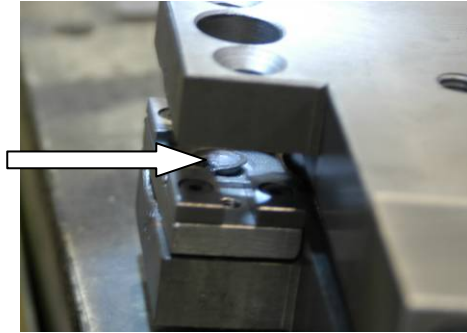
8. Carefully remove the hardmetal. **Pozor, nesmí dojít ke ztrátě talířových pružin.**



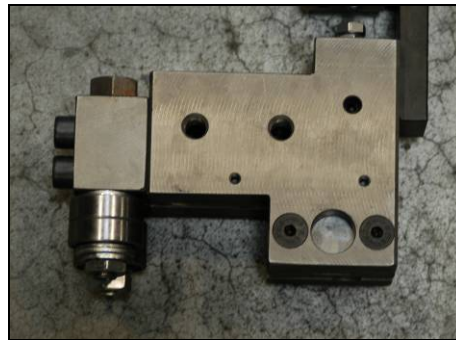
9. The number of disc springs must match the number of dismantled springs. Disc springs are folded against each other 1 to 1 Odd plate spring is near the hardmetal carbide.



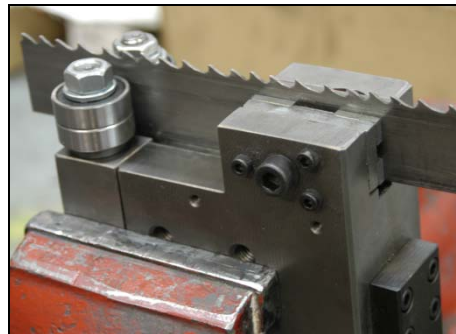
10. Insert the new hard metal guide. **Attention, Do not lose disc springs.** Ensure proper position of carbide guides – holes for 3 stop screws must be in the same position as the holes in a guiding cube.
11. Insert and tighten central screw.



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



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



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

4.12.5. Brush replacement

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

1. Hold shaft of the brush by wrench.



2. Release the nut on the brush, replace worn brush on the new brush, screw on the nut.
3. Set the brush to the saw band.

5. **Závady / Troubleshooting**

5.1. Mechanical problems

Problem	Possible causes	Repair
4. 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.	
5. 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.
6. 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“
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. Cleansing of the saw band is not functional.	- Elastic wheel of the brush drive is worn-down.	Elastic wheel of the brush must be changed.
	- Knurling of the driving wheel is worn-down.	Driving wheel must be changed.
	- The shaft of the brush drive is rusted.	The shaft of the brush must be cleaned and oiled.

Problem	Possible causes	Repair
	- The brush position and the brush cover is adjusted wrong – with the brush cannot be turned.	The brush cover must be posed, in order to the brush can be turned.
15. The saw arm periodically rise and fall during the cut; this cause short lifetime of the saw band.	- Backlash in driving wheel lodgement on the shaft.	Change the driving shaft for a long one, new bearings, distance ring, new driving wheel, spring, two covers on the forehead of the shaft + screws.
	- Worn channel for spring.	

5.2. Electric problems

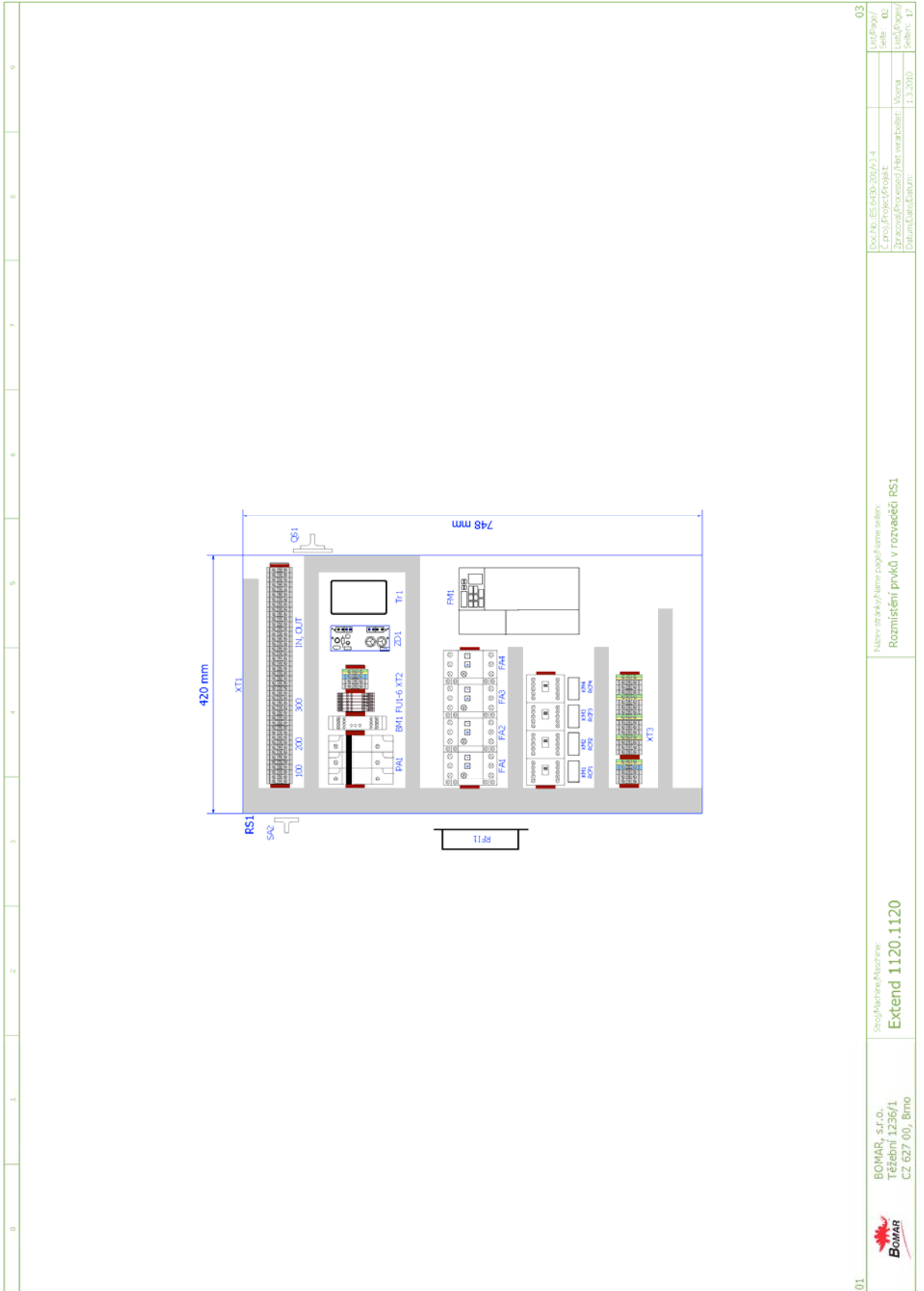
Problem	Possible causes	Repair
16. Machine is not possible start.	- In socket is not voltage	Line voltage must be checked.
	- Transfer relay is closed (thermal protector)	Each FA relay must be checked.
	- Limit switch of saw band stretching, cover of frame or cover of saw band is not started.	Check of saw band stretching and covers closing.
17. 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.
18. Electric motor and pump are without voltage. Between contactor and thermal protector is not voltage.	- Wrong contactor.	Replace contactor of engine.
19. 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.
20. 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.
21. The hydraulic aggregate cannot be started	Auxiliary contact on thermo-relay FA1 is defective.	Replace the defective contact on motor starter FA1.
22. 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.
23. 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

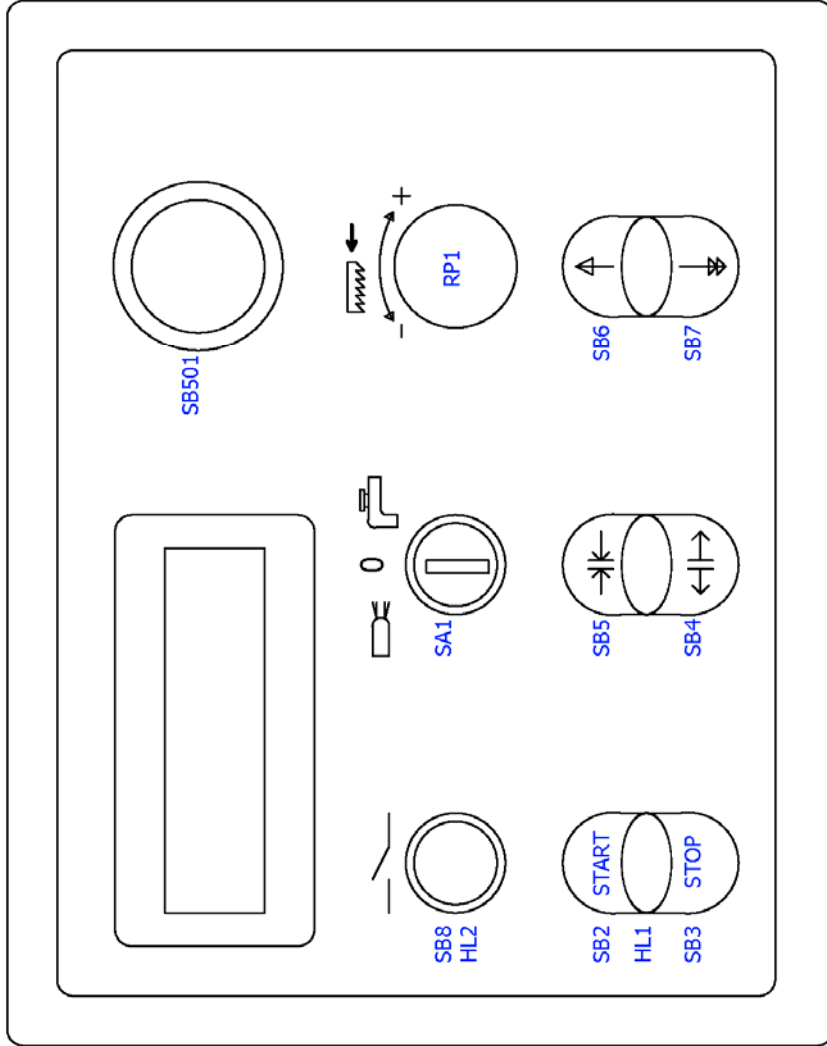
Problem	Possible causes	Repair
24. Hydrogenerator not supplying oil	• reverse rotation	Check the connections of each phase. Reconnect properly connection of the electrical phases.
	• shortage of oil in the tank	Add hydraulic oil
	• Oil viscosity does not correspond prescribed viscosity value	Change hydraulic oil.
	• Hydrogenerator malfunction	Call service
	• Wrong power supply connection.	Check the connections of each phase. Reconnect properly connection of the electrical phases.
25. 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
26. Increased mechanical noise	• damaged joint drive	Call service
	• damaged or destroyed motor bearings	Call service
	• air intake	Check for leaks.
27. 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
28. 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
29. Overheating oil	• cooler malfunction	Check the cooler function or call service.
	• wear the pump, the energy is converted into heat	Call service
30. 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

6. **Schémata / Schemas / Schematics**

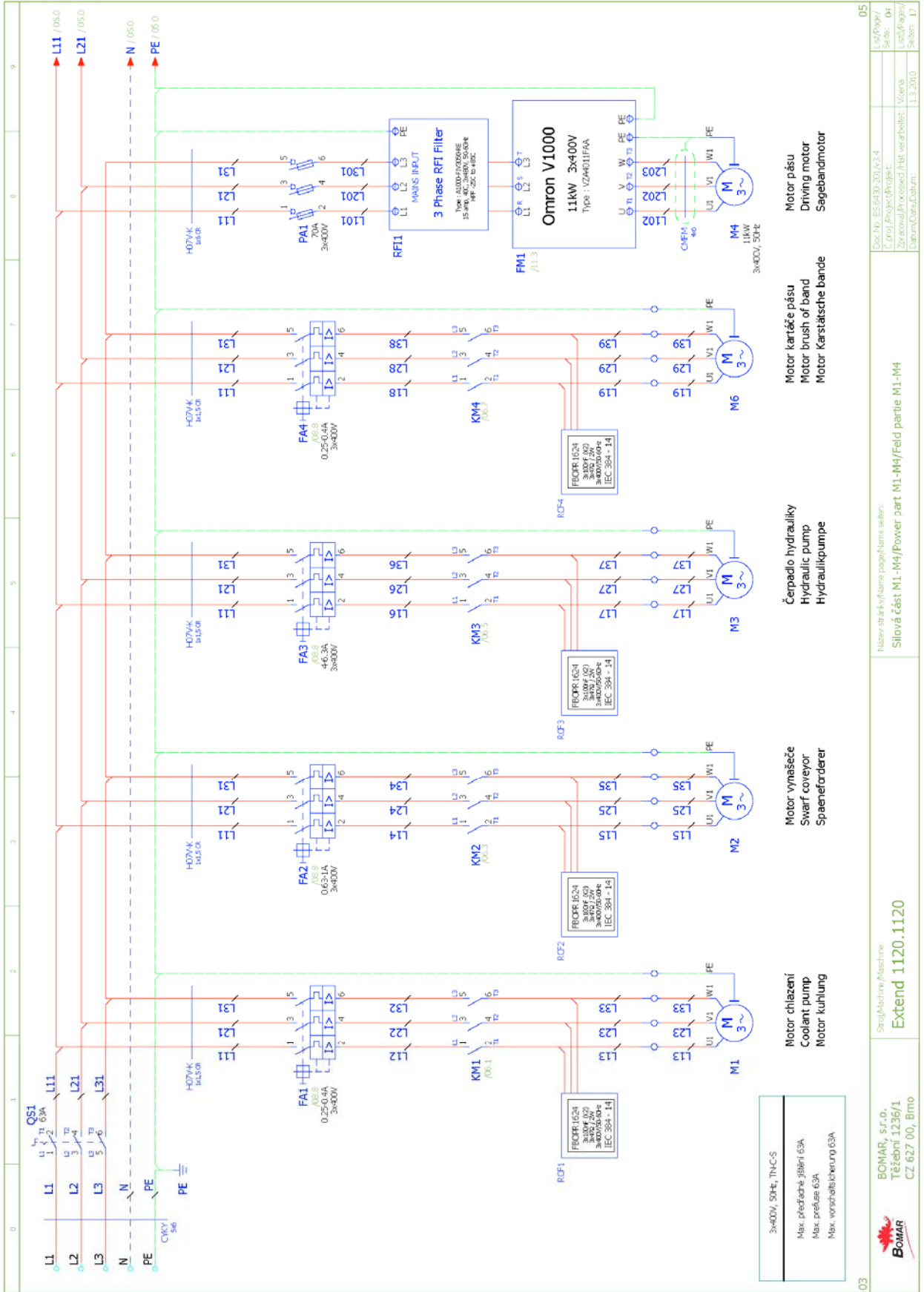
6.1. Elektrické schéma /
Elektroschema /
Wiring diagrams – 3x400 V, TN-C-S



01	02	03	04	05	06	07	08	09	
Stroj/Machine/Машина: Extend 1120.1120			Název stránky/Name page/Имя страниц: Rozmístění prvků v rozváděči RS1						03
BOMAR, s.r.o. Třebáň 1126/1 CZ 627 00, Brno			Doc.No.: ES-6400-2017/3.4 C. pro./Project/Froyekt: Zpracováno/Processed/Тит. verarbeitet: Datum/Date/Datum:						02
			Výsena 1.3.2010						17



02	BOMAR, s.r.o., Těšební 1236/1 CZ 627 00, Brno	Stroj/Machine/Maschine: Extend 1120.1120	Název stránky/Název page/Název seiten: Ovládací panel na rozváděči	Doc.Nb.: E5-640-2014/3.4 C.čroj./Project/Projekt: Zpracováno/Processed/Verarbeitet: Viena Datum/Date/Datum: 26.2.2010	04
				Leaf/Page/ Seite: 01	
				Leaf/Page/ Seite: 17	



3~400V, 50Hz, TN-C-S
 Max. předřadná jistič 63A
 Max. předřadná 63A
 Max. vorschaltbüchse 63A

Motor chlazení
Coolant pump
Motor kühlung

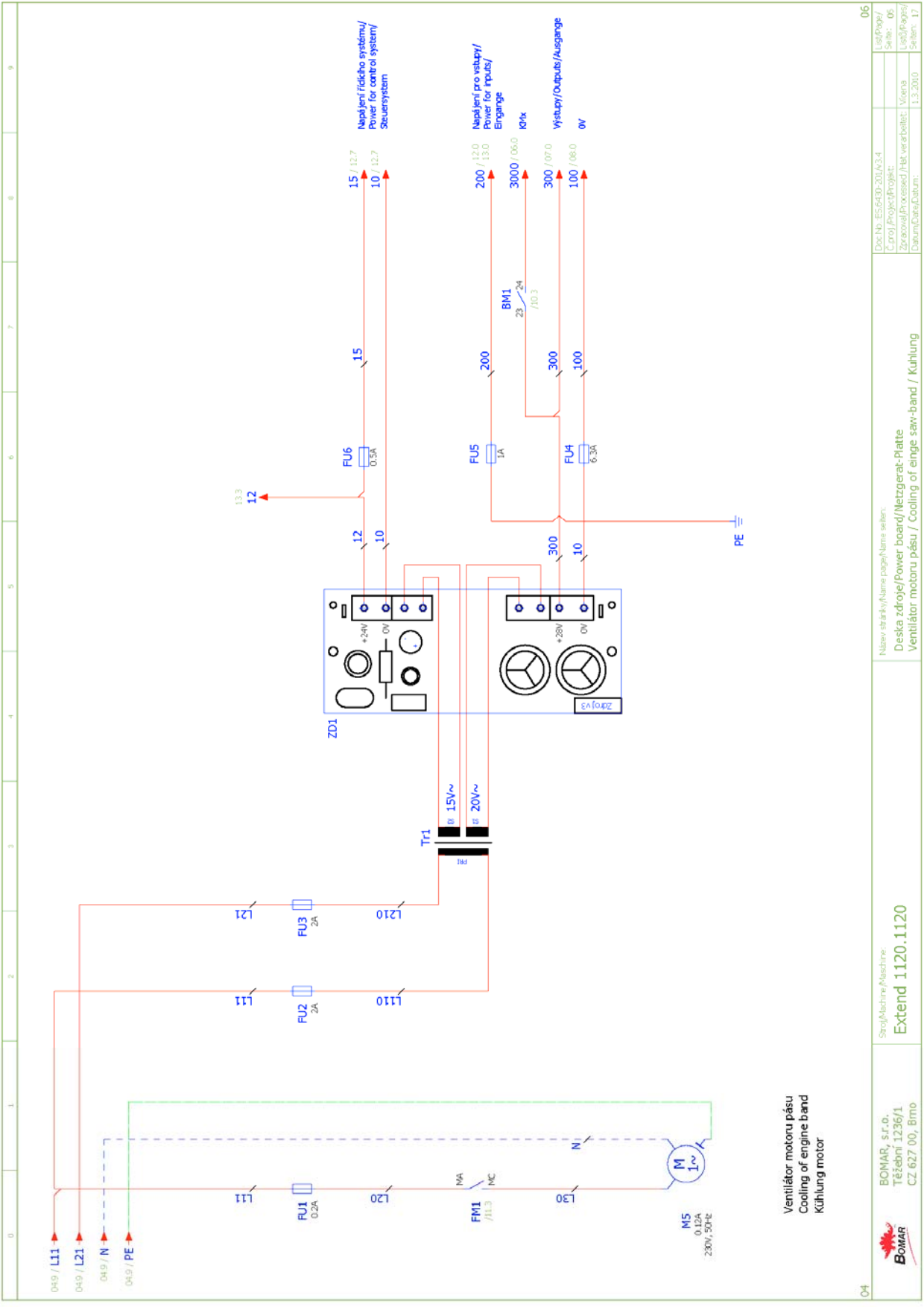
Motor vynašeče
Swarf conveyer
Spaeneförderer

Čerpadlo hydrauliky
Hydraulic pump
Hydraulikpumpe

Motor kartáče pásu
Motor brush of band
Motor Karstätsche bande

Motor pásu
Driving motor
Segebandmotor

03	Stroj/Machine/Maschine Extend 1120.1120	Název stránky/název page/název sheet: Slovní část M1-M4/Power part M1-M4/Feld partie M1-M4	Doc.Nr.: ES-6430-201A/3.4 Cena/Project/Projekt: Zpracoval/Processed/Has verarbeitete: Vlasna Datum/Data/Datum: 1.3.2010	05
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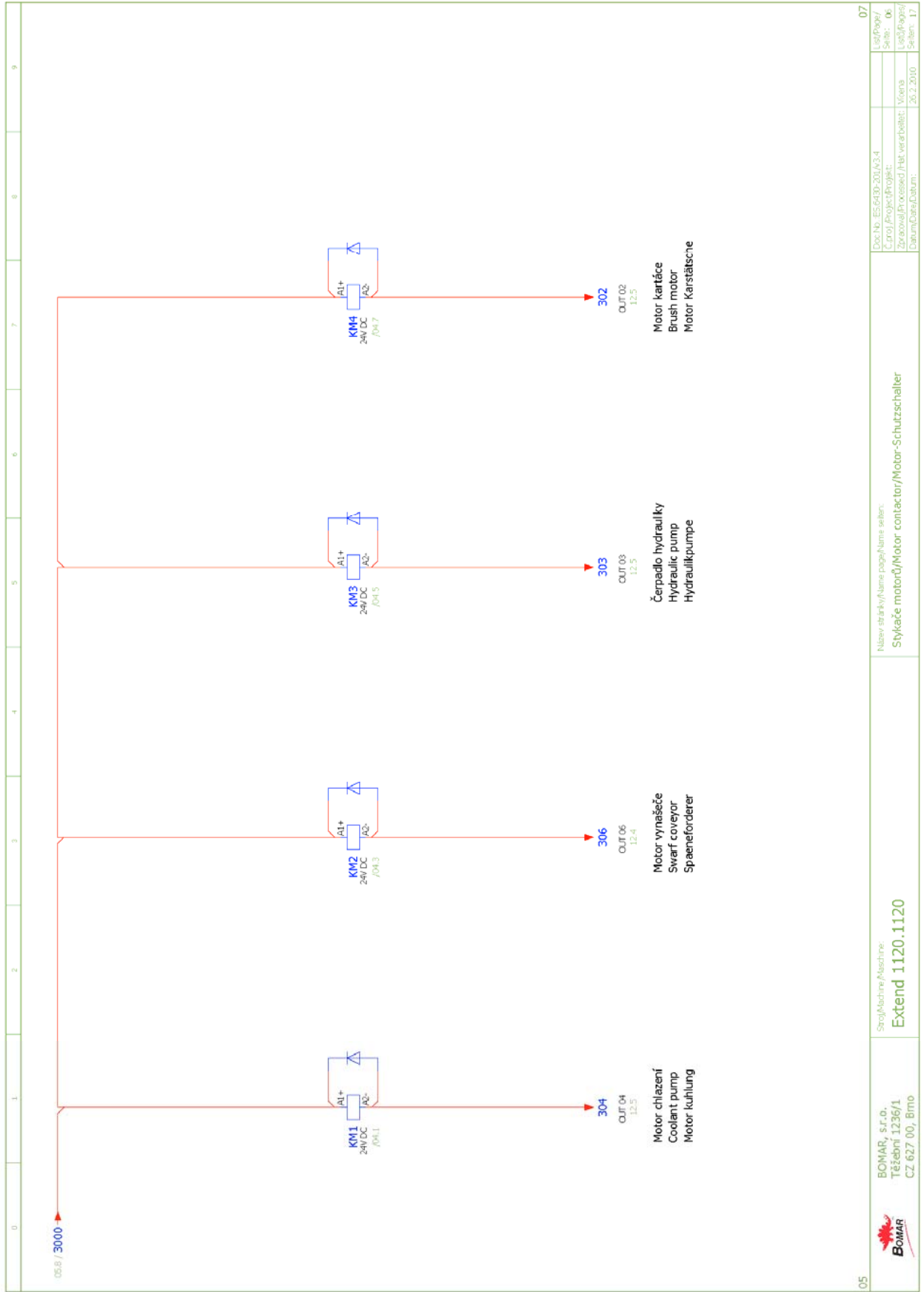


Ventilátor motoru pásu
Cooling of engine band
Kühlung motor

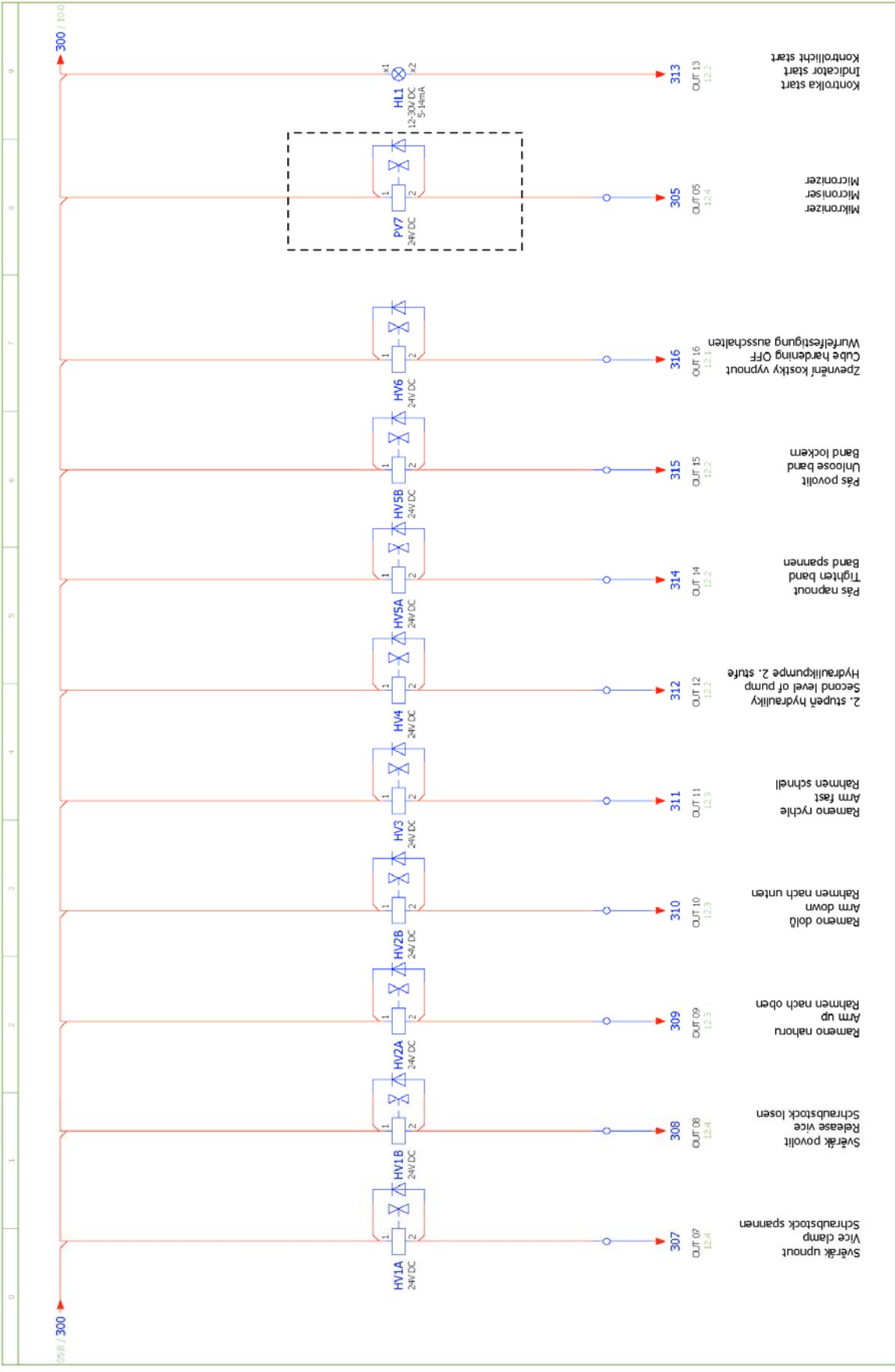
Stroj/Machine/Maschine:
Extend 1120.1120

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



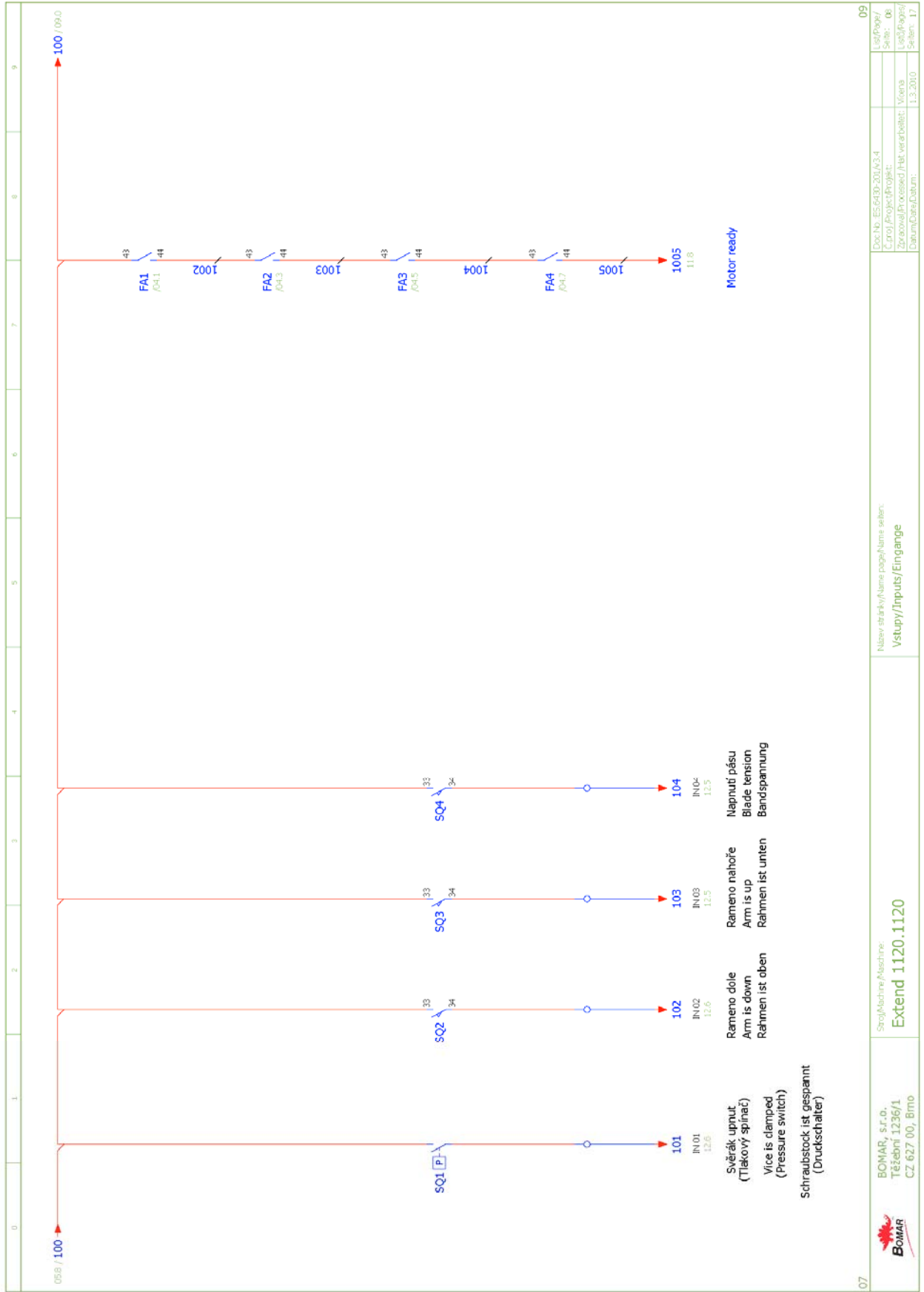


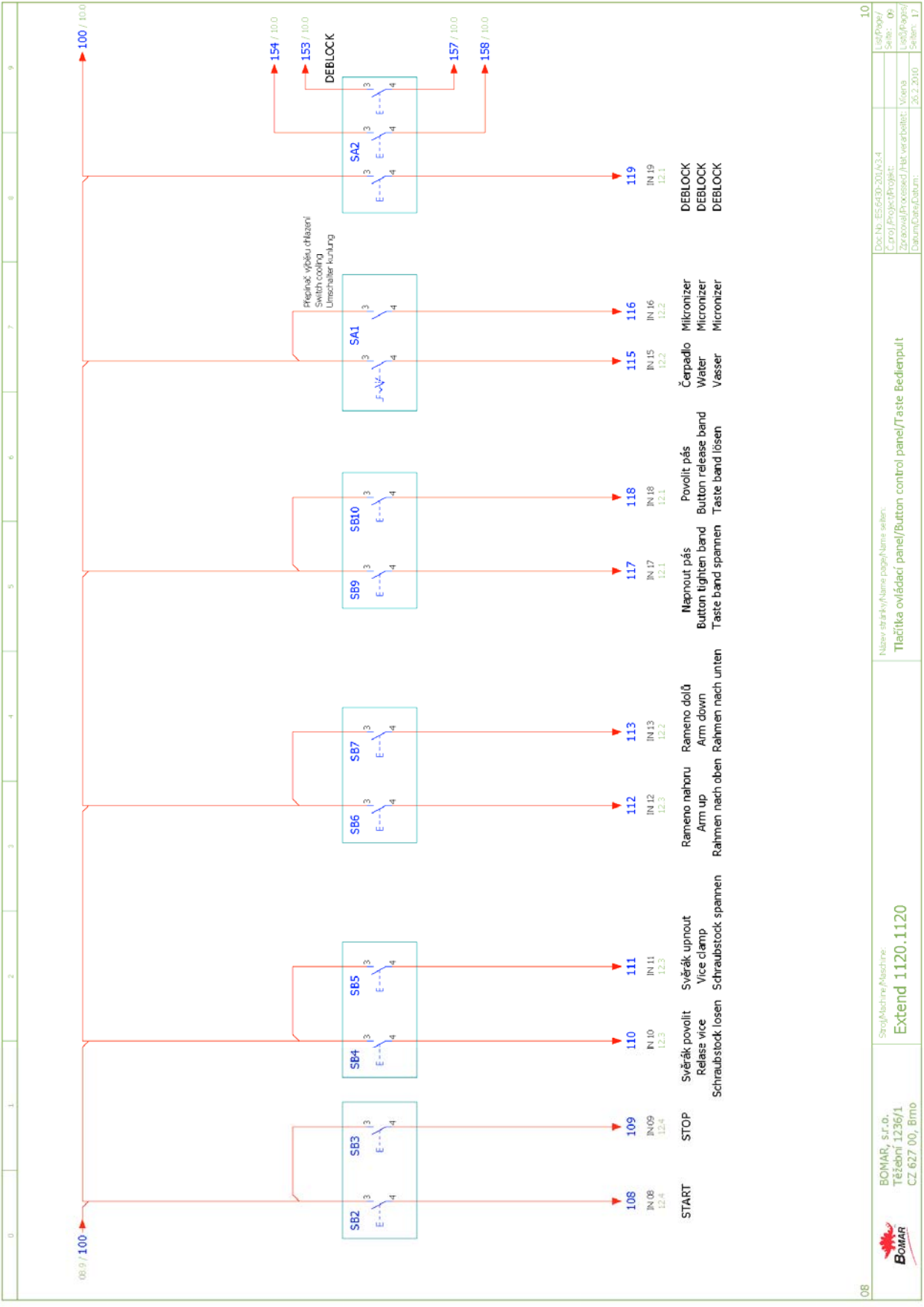
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List / Paper / Series: 06 List / Paper / Series: 06 List / Paper / Series: 17				
Name / Jméno / Name page / Name: seten. Sýkace motorů / Motor contactor / Motor-Schutzschalter				
Stroj / Machine / Maschine: Extend 1120.1120				
BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Břmo				



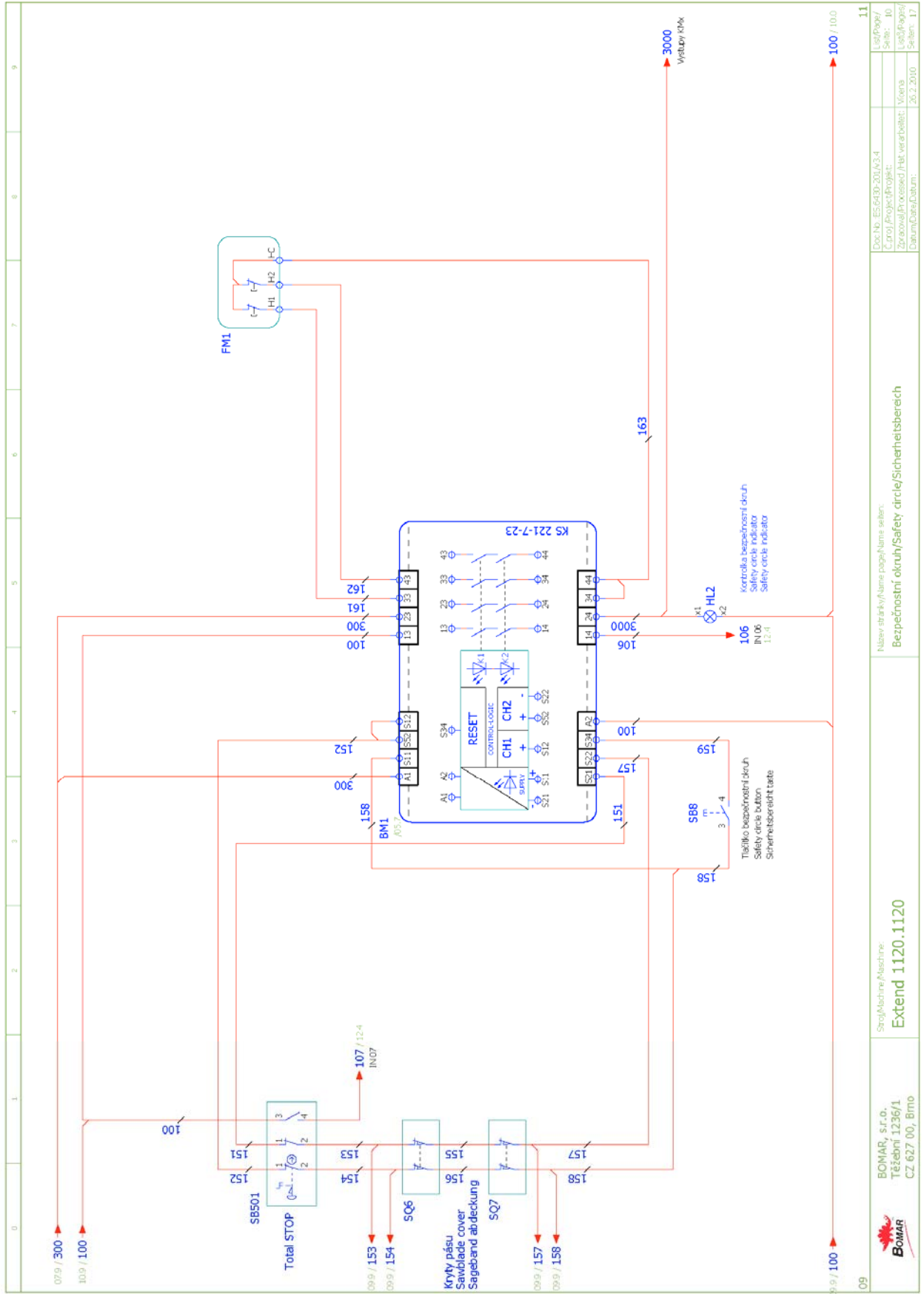
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			Doc No: ES-6430-201A3-4	List/Page/
			C. proj. Project/Projekt:	Series: 07
			Zpracoval/Processed/Has verarbeitel: M. Viana	List/Page/
			Datum/Date/Date:	Series: 17
				Sheet: 17

**Schemata
Schemata
Schematics**

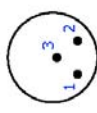
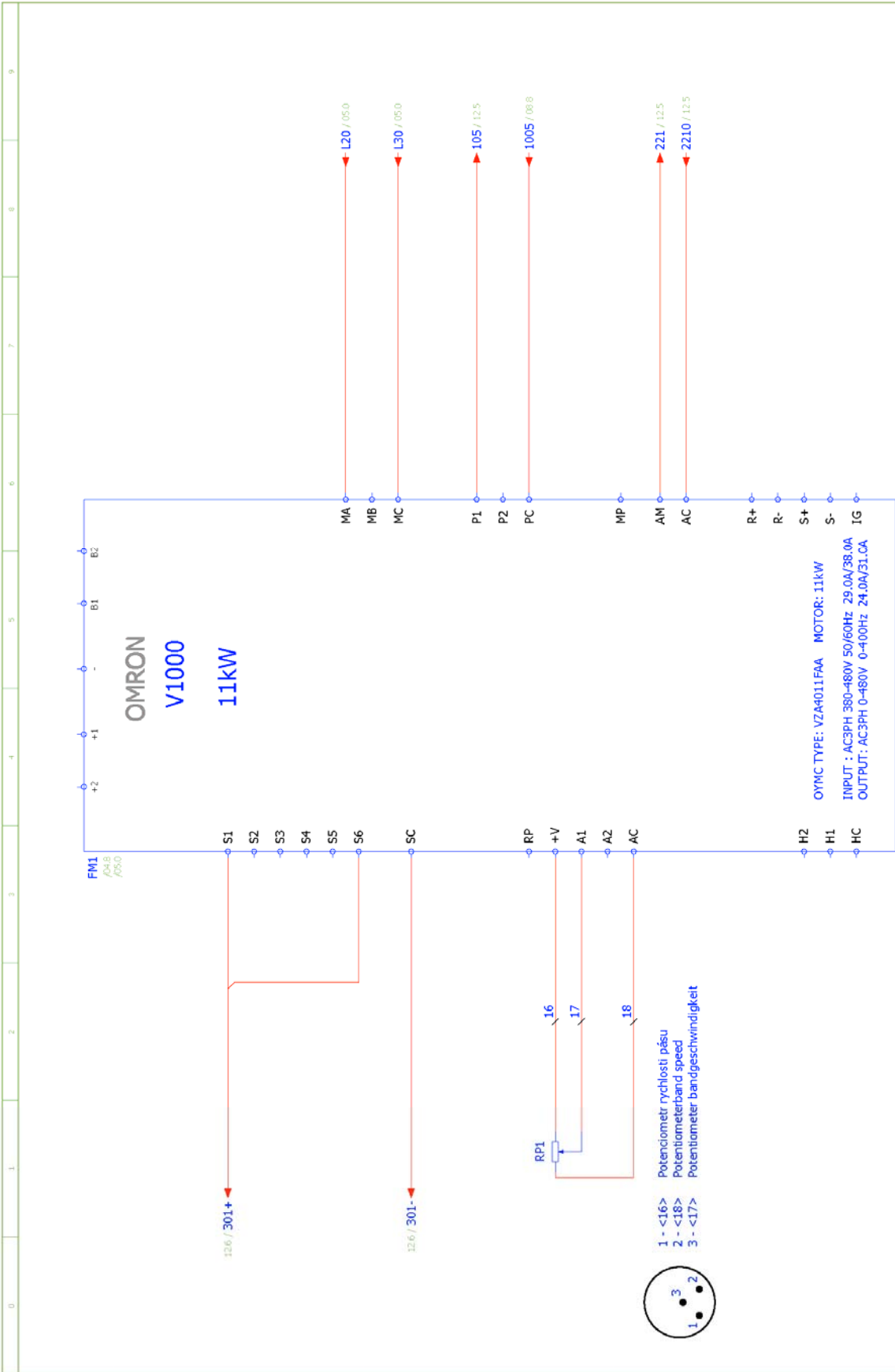




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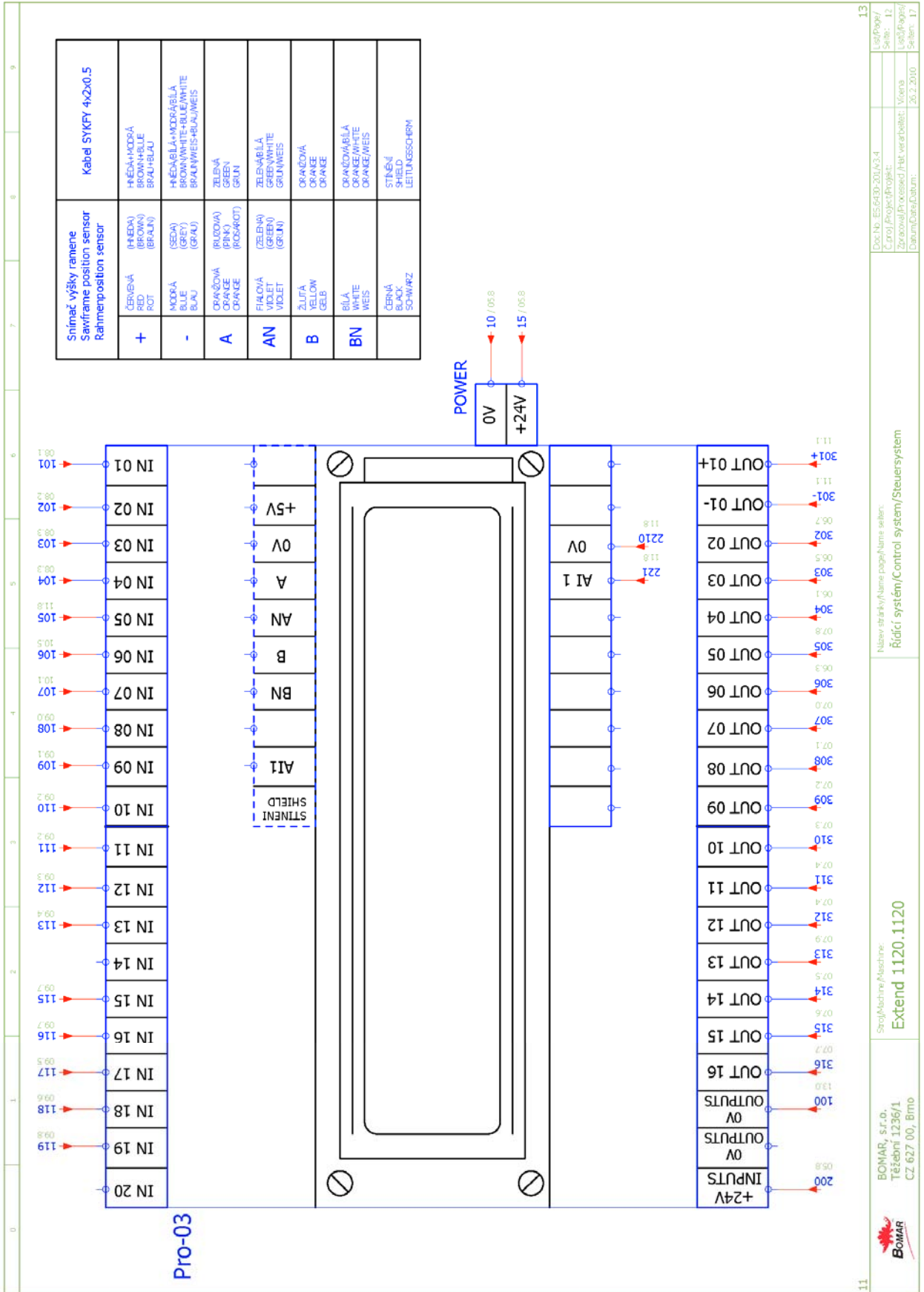
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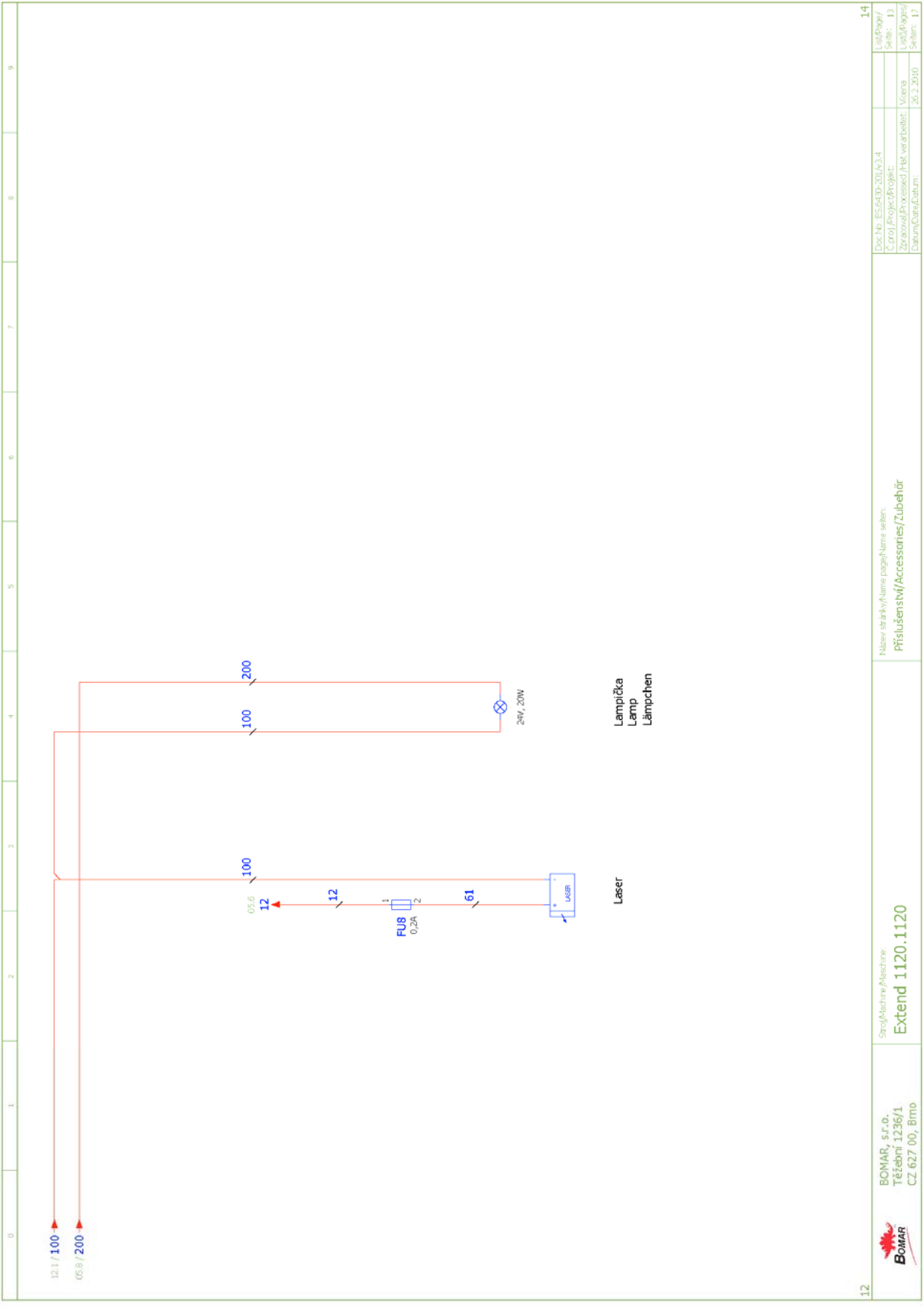


- 1 - <16> Potenciometr rychlosti pásu
- 2 - <18> Potenciometrband speed
- 3 - <17> Potenciometr bandgeschwindigkeit

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**Schemata
Schemata
Schematics**





12	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Břmo	Stroj/Machine/Meschine: Extend 1120.1120	Název/draw/Name/page/Name: seten: Přístroj/Device/Accessories/Zubehör	Doc No.: ES-6430-2014/3-4 C. proj./Project/Projekt: Zpracoval/Processed/Hat verarbeit.: Viena Datum/Date/Datum: 20.2.2000	List/Page/ Seite: 13 List/Page/ Seite: 17	14
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Schemata
Schemata
Schematics

Extend 1120.1120		PLC	
IN 01	Světlá upnutí	IN 01	○
IN 02	Rameno dolů	IN 02	○
IN 03	Rameno nahore	IN 03	○
IN 04	Napnutí pásu	IN 04	○
IN 05	Motor ready	IN 05	○
IN 06	Bezpečnostní okruh uzavřen	IN 06	○
IN 07	Buton Total stop	IN 07	○
IN 08	Buton START	IN 08	○
IN 09	Buton STOP	IN 09	○
IN 10	Tlačítko světlá povolit	IN 10	○
IN 11	Buton vice release	IN 11	○
IN 12	Buton arm up	IN 12	○
IN 13	Taste schraubstock spannen	IN 13	○
IN 14	Taste schraubstock lösen	IN 14	○
IN 15	Switch water pump	IN 15	○
IN 16	Switch micronizer	IN 16	○
IN 17	Buton band tension	IN 17	○
IN 18	Buton band release	IN 18	○
IN 19	Switch DEBLOCK	IN 19	○
IN 20	NC	IN 20	○
OUT 01+	Motor pásu start	OUT 01	○
OUT 02	Motor katáče - stykač	OUT 02	○
OUT 03	Čerpadlo hydrauliky - stykač	OUT 03	○
OUT 04	Motor chlazení - stykač	OUT 04	○
OUT 05	Mikronizer	OUT 05	○
OUT 06	Motor vnašeče - stykač	OUT 06	○
OUT 07	Světlá upnutí	OUT 07	○
OUT 08	Světlá povolit	OUT 08	○
OUT 09	Rameno nahoru	OUT 09	○
OUT 10	Rameno dolů	OUT 10	○
OUT 11	Rameno rychle	OUT 11	○
OUT 12	2. stupeň hydrauliky	OUT 12	○
OUT 13	Kontrolka start tlačítko	OUT 13	○
OUT 14	Pás napnutí	OUT 14	○
OUT 15	Pás povolit	OUT 15	○
OUT 16	Zpěvnění kostky vypnout	OUT 16	○

DE	ENG
Schraubstock ist gespannt	Vice is clamped
Rahmen ist oben	Arm is down
Rahmen ist unten	Arm is up
Bandspannung	Blade tension
Motor vorbereitet	Motor ready
Sicherheitsschaltung gesperrt	Safety circle shut down
Buton Total stop	Buton Total stop
Taste START	Buton START
Taste STOP	Buton STOP
Taste schraubstock lösen	Buton vice release
Taste schraubstock spannen	Buton vice clamp
Taste rahmen oben	Buton arm up
Taste rahmen unten	Buton arm down
NC	NC
Umschalter wasser pumpe	Switch water pump
Umschalter micronizer	Switch micronizer
Taste band spannen	Buton band tension
Taste band lösen	Buton band release
Umschalter DEBLOCK	Switch DEBLOCK
NC	NC
Start motor band	Start band motor
Motor karáče - stykač	Brush motor - contactor
Motor chlazení - stykač	Motor chlazeni - stykac
Hydraulik pumpe - stykač	Hydraulic pump - contactor
Hydraulik pumpe - ständerschütz	Hydraulic pump - contactor
Motor kühlung - ständerschütz	Coolant pump - contactor
Mikronizer	Micronizer
Sparefordrer - ständerschütz	Swarcovevor - contactor
Schraubstock spannen	Vice clamp
Schraubstock lösen	Release vice
Rahmen oben	Arm up
Rahmen unten	Arm down
Rahmen schnell	Arm fast
Hydraulikpumpe 2. stupe	Second level od pump
Kontrolllicht start taste	Indicator start button
Band spannen	Tighten band
Band lockern	Unloosen band
Würfelabgabe ausschalten	Cube hardening Off

Pohled ze spodu/From under view/Blick nach

Souhrnný kusovník artiklů

Typ přístroje	Objednávací číslo	Výrobce	Skladové číslo	Množství
Bezpečnostní koncový spínač	QXS8	KEDU	91.173.012	2
Bezpečnostní modul	SINA064K	WIELAND	91.051.026	1
Dioda 1A	IN4007		91.280.004	10
Dvojjičátko NAHORU/DOLŮ	M22-DDL-W-S*	MOELLER	91.060.054	1
Dvojjičátko START/STOP	M22-DDL-W-S-	MOELLER	91.060.034	1
Dvojjičátko světlák POVOLIT/UPNOUT	M22-DDL-W-S*	MOELLER	91.060.055	1
Filtr k frekvenčnímu měničů 11kW	A1000-FV 3050-RE	OMRON	91.012.020	1
Filtr RFC vývodový	FBOPR1624		91.041.015	4
Frekvenční měnič 11kW	VZA4011FAA	OMRON	91.012.030	1
Hlavice 2 polohového přepínače	M22-WKV	MOELLER	91.060.037	1
Hlavice 3 polohového přepínače	M22-WRK3	MOELLER	91.060.051	1
Hlavice hřibového ovládače do krabičky	M22-LED-W	MOELLER	91.060.030	1
Hlavice hřibového ovládače do krabičky	M22-PVT 263467	MOELLER	91.060.030	1
Hlavice prosvětleného tlačítka žlutá	M22-DL-Y	MOELLER	91.060.053	1
Hlavice tlačítka černá	M22-D-S	MOELLER	91.060.035	2
Hlavní vypínač 63 A	VCF3-63A	TELEMECANIQUE	91.170.011	1
Koncový spínač	D4N-4A31	OMRON	91.173.007	2
Koncový spínač	D4N-4A62	OMRON	IFS	1
Krabička na 2 tlačítka	M22-I2	MOELLER	91.190.024	1
Lampička 12V, 20W	LBP-B-302	RNDR Zdeněk Martinásek	91.100.103	1
Laser	Laser		91.100.105	1
Motorový jistič 0.25...0.4 A	GZ1M03	TELEMECANIQUE	91.235.022	2
Motorový jistič 0.63...1A	GZ1M05	TELEMECANIQUE	91.235.023	1
Motorový jistič 4...6.3 A	GZ1M10	TELEMECANIQUE	91.235.026	1
Pojistka trubičková 0.2A, 5x20	F0,2A/250V	ESKA	91.230.037	1
Pojistka trubičková 0.5A, 5x20 pomalá	F0,5A/250V	ESKA	91.230.011	1
Pojistka trubičková 1A, 5x20 pomalá	F1A/250V	ESKA	91.230.003	1
Pojistka trubičková 2A, 5x20	F2A/250V	ESKA	91.230.001	2

14

15.a

Doc. No.: ES-6109-201A/3.4
 C. proj./Projekt/Projekt:
 Zpracoval/Processed/Has verarbeitel: Vienna
 Datum/Date/Datum: 1.3.2010

Název struktury/název popisu/název sestavy:
 Souhrnný kusovník

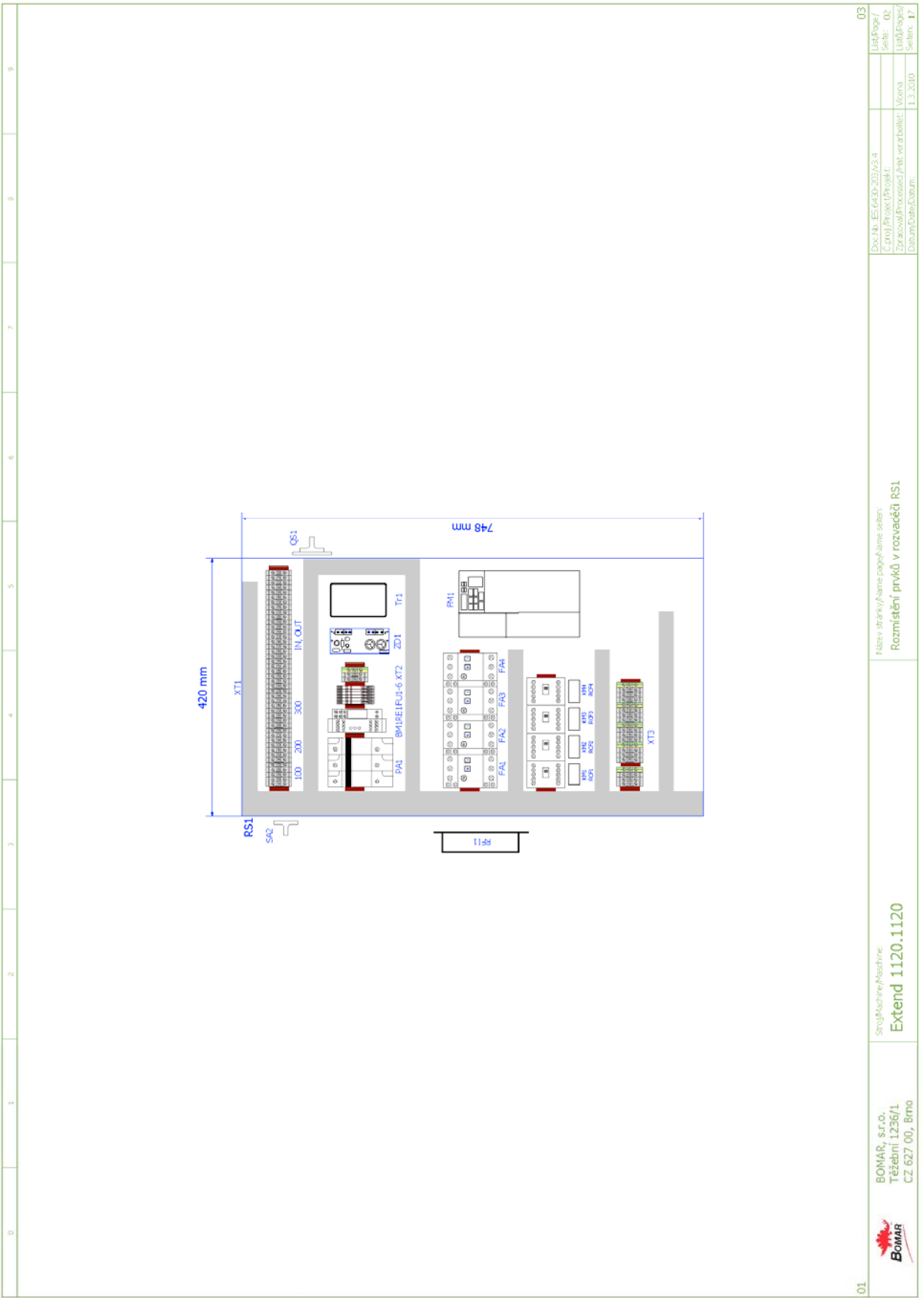
Stroj/Machine/Modellname:
 Extend 1120.1120

BOMAR, s.r.o.
 Třebení 1236/1
 CZ 627 00, Bimo

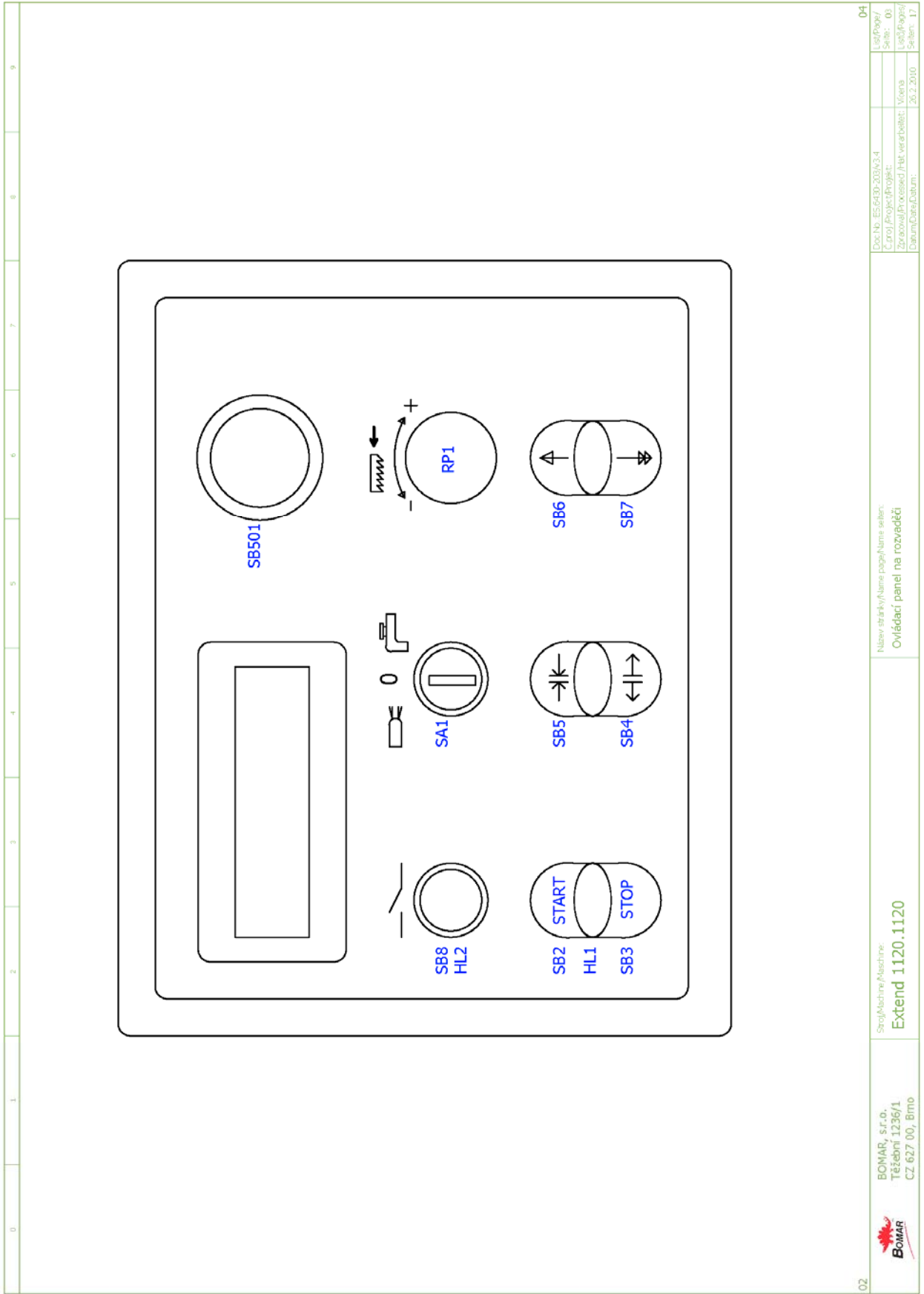


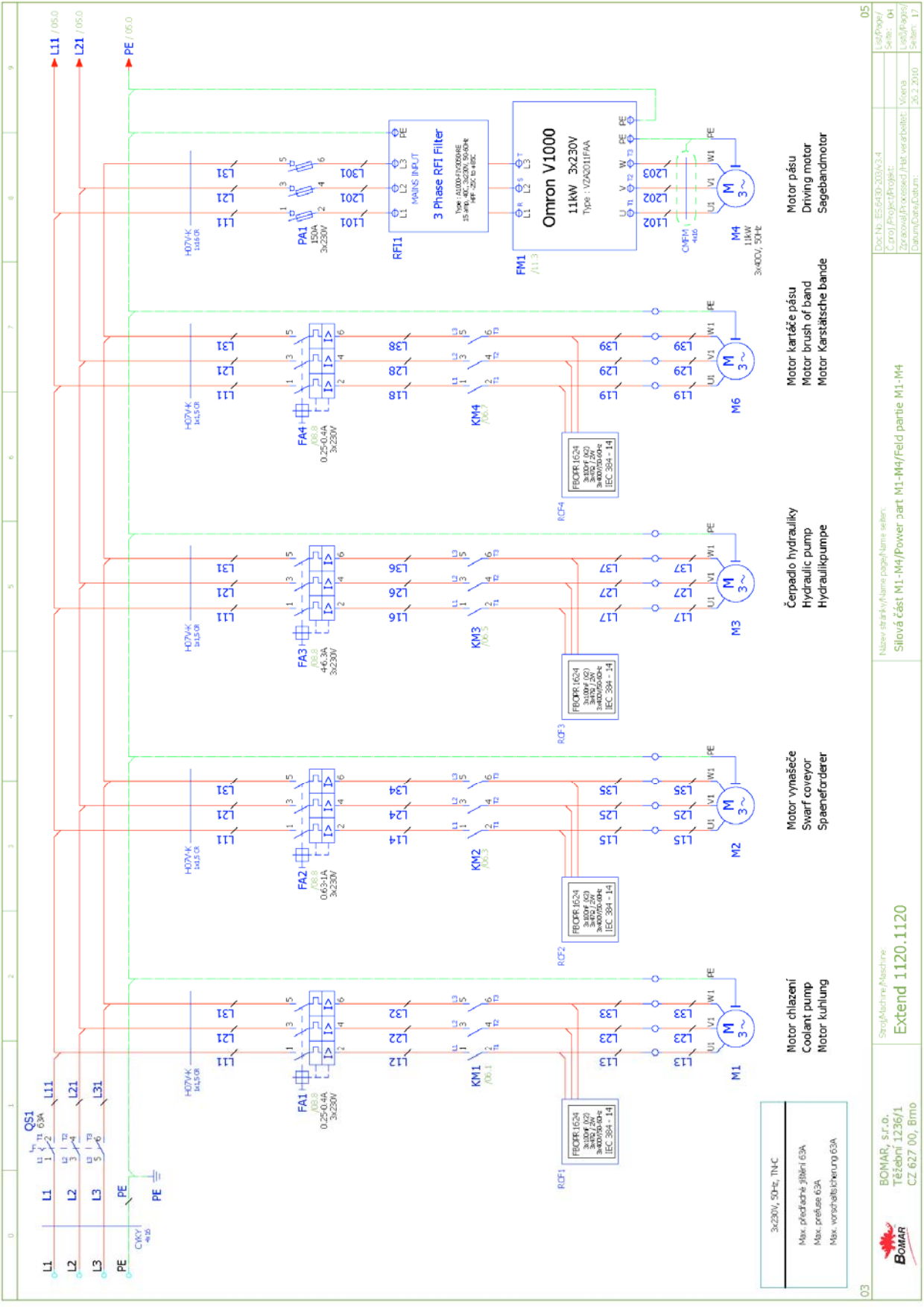
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Souhrnný kusovník artiklů									
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Pojistka trubičková 6.3A, 5x20 pomalá	F6_3A/250V	ESKA	91.230.002	1					
Pojistka válcová 63A, 14x51, rychlá	PV14 63A gG	OEZ	91.230.018	3					
Pojistkové pouzdro	WK4/THSIS...U	WJELAND	91.251.102	6					
Pojistkový odpínač pro válcové vložky vs. 14	OPV14/3	OEZ	91.241.003	1					
Pomocný kontakt motorového jističe	GZ1AM11	TELEMECANIQUE	91.046.004	8					
Potenciometr 4k7	TP195 4k7-M20A	TES-Ostrava	91.283.002	1					
Rozpínací jednotka	M22-KC01	MOELLER	91.061.025	1					
Rozpínací jednotka na adaptér	M22-K01	MOELLER	91.061.024	1					
Řídicí systém Pro_03	Ridici system Pro_03	BOMAR s.r.o.	265.911	1					
Signálka zelená na adaptér	M22-LED-G	MOELLER	91.061.023	1					
Spínací jednotka	M22-KC10	MOELLER	91.061.030	7					
Spínací jednotka s adaptérem	M22-K10	MOELLER	91.061.021	8					
Stykač	DIL EM-10-G	MOELLER	91.040.020	4					
Svorka rychloupínací	Svorka rychloupinaci	WJELAND	91.250.009	3					
Symbol ŠIPKA	Symbol ŠIPKA	MOELLER	91.062.002	2					
Toroidní transformátor	1502304002015	ELEKTRO-KARBAN s.r.o.	91.080.026	1					
Ventilátor chlazení 230V, 50Hz, 0.12A	RAH127861-C	XFAN	91.015.105	1					
Zdroj	Zdroj v3	BOMAR s.r.o.	265.912	1					
Žárovka 24V, 20W	MR 16	Orbitec	93.017.107	1					

6.2. Elektrické schéma /
 Elektroschema /
 Wiring diagrams – 3×230 V, TN-C



Schemata
 Schemata
 Schematics

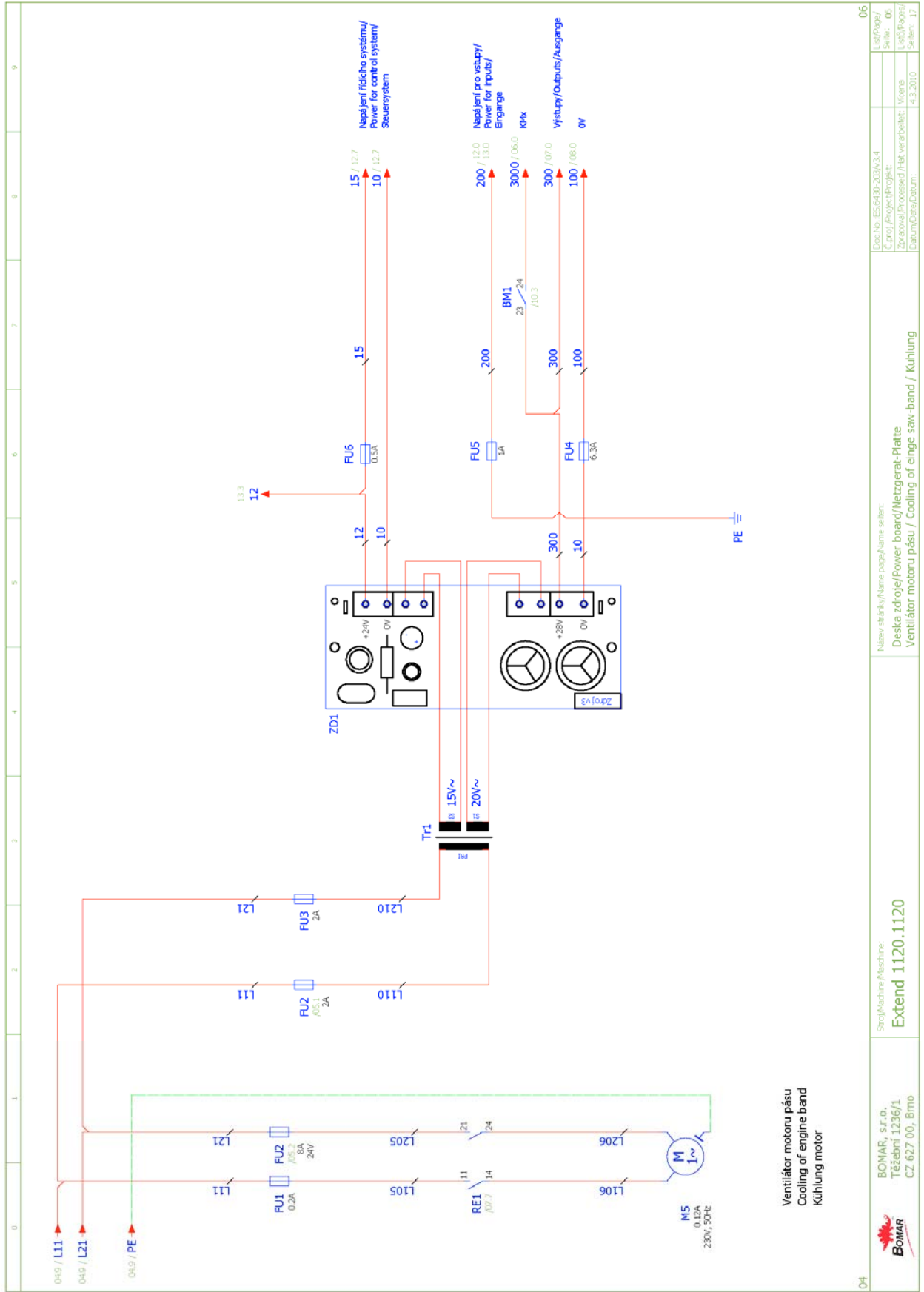


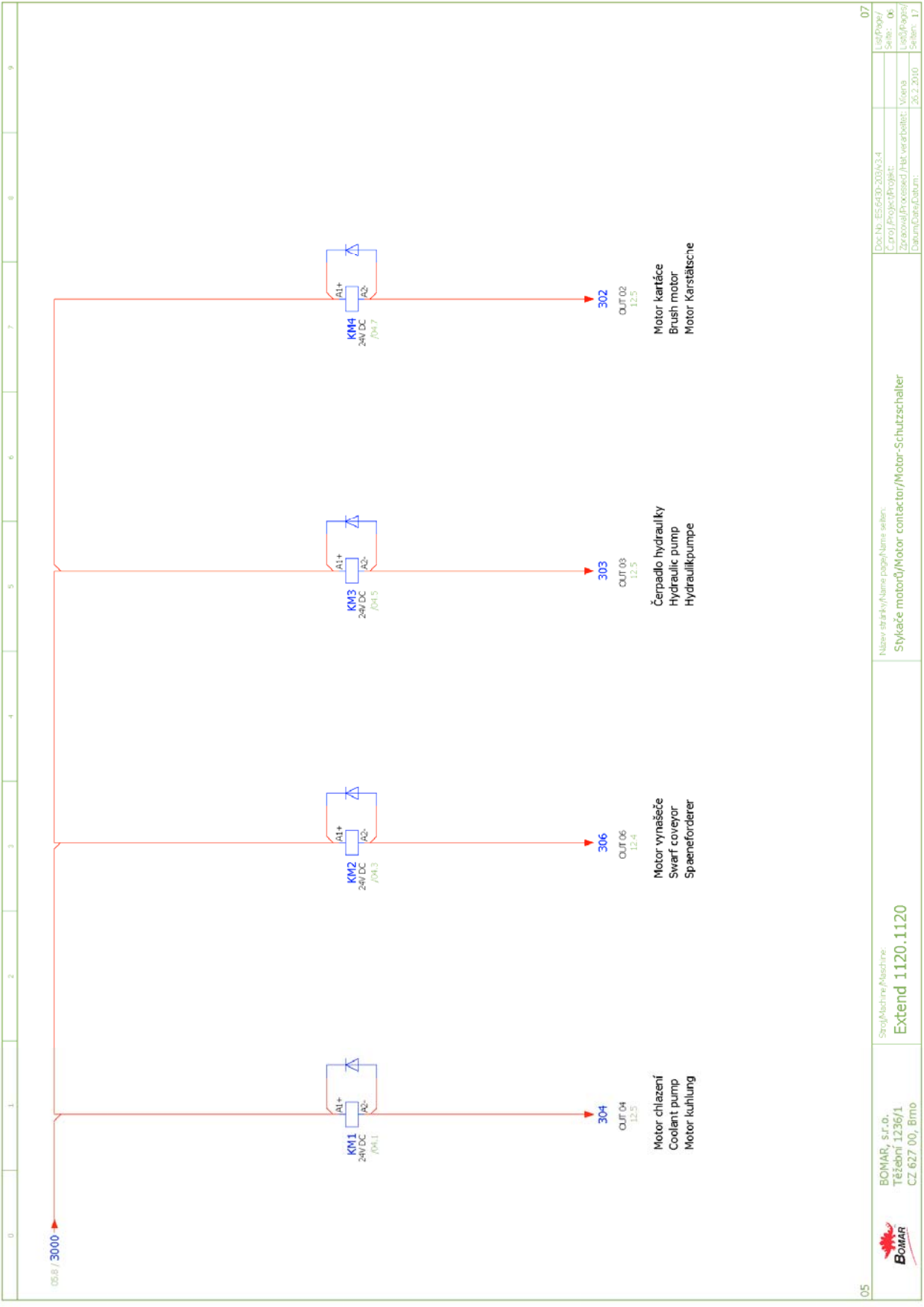


3x230V, 50-Hz, TN-C
 Max. předčasná jistič 63A
 Max. předčasná 63A
 Max. vorstehzeitlicher 63A

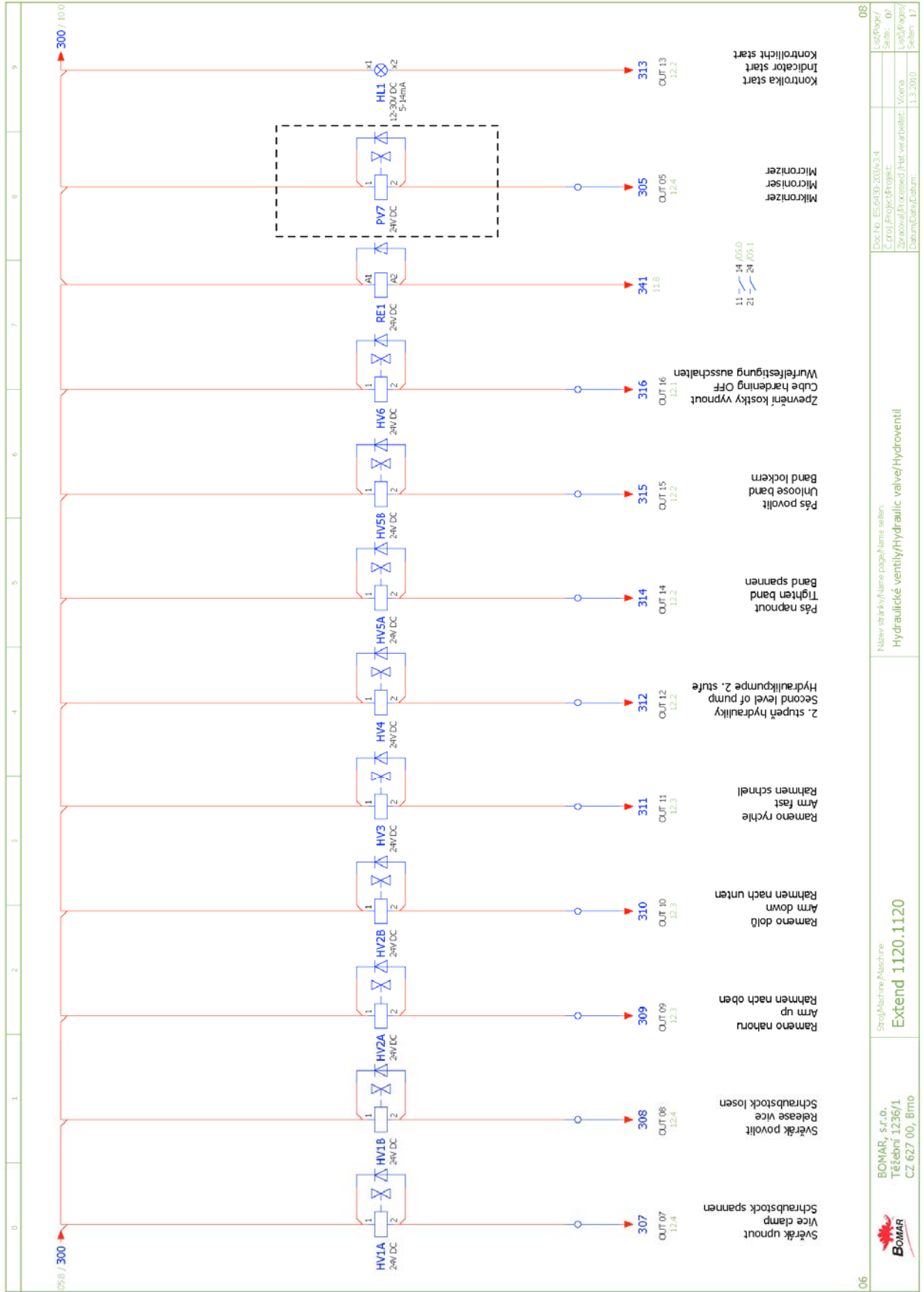
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	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo		
		Doc.No.: ES-6430-2014/3.4 Coproj/Project/Projekt: Zpracoval/Processed/Has verarbeit: V. Viana Datum/Date/Date: 26.2.2010	05 List/Page/ Seite: 04 List/Page/ Seite: 17

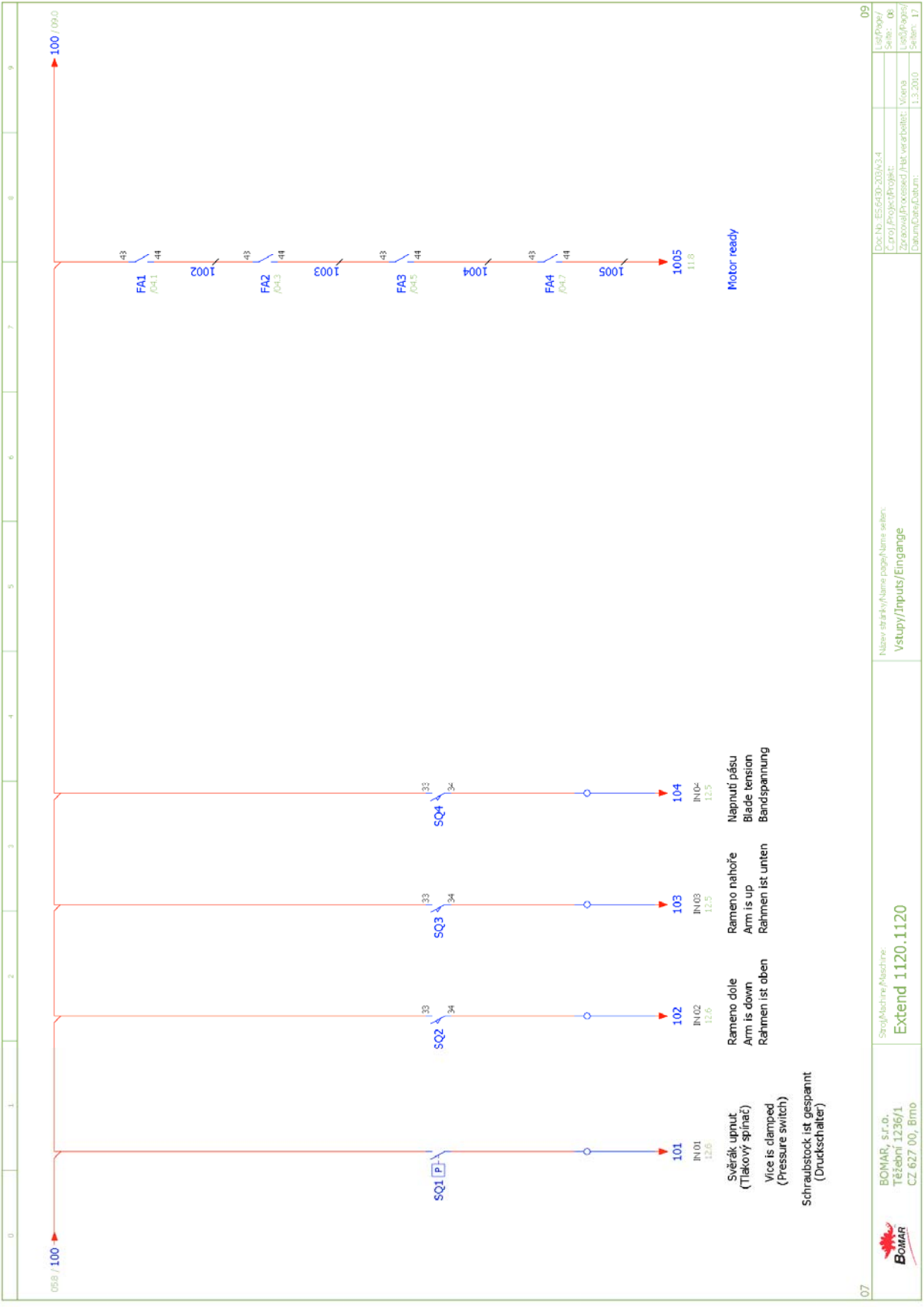
Schemata Schematics





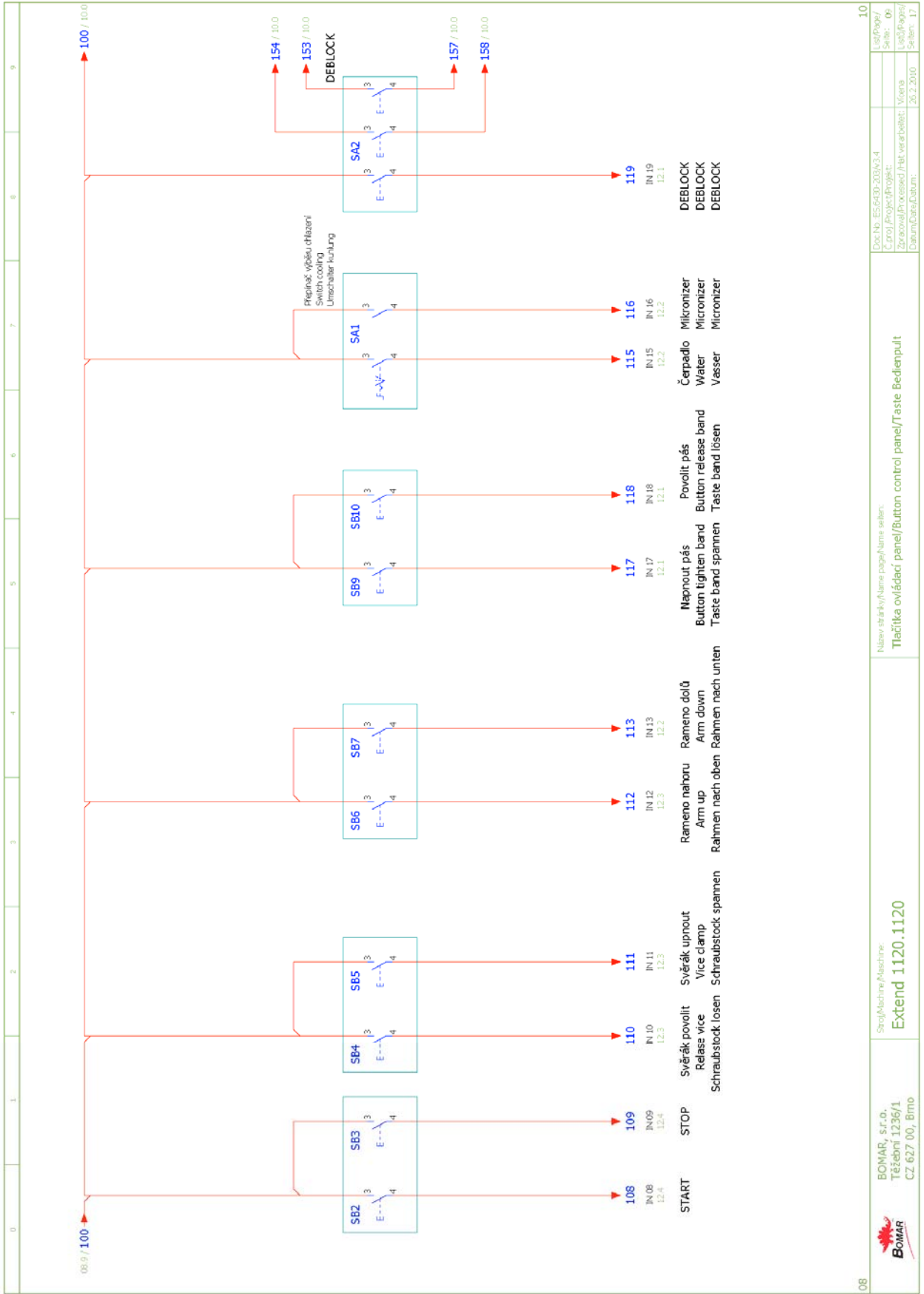
05	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Meschine: Extend 1120.1120	Název/description/Name page/Name: seten. Slykače motorů/Motor contactor/Motor-Schutzschalter	Doc.No.: ES-6430-209A3.4 C. Proj./Projekt/Projekt: Zpracoval/Processed/hat verarbeit.: Viena Datum/Date/Datum: 20.2.2000	07 List/Page/ Seite: 06 List/Page/ Seite: 17
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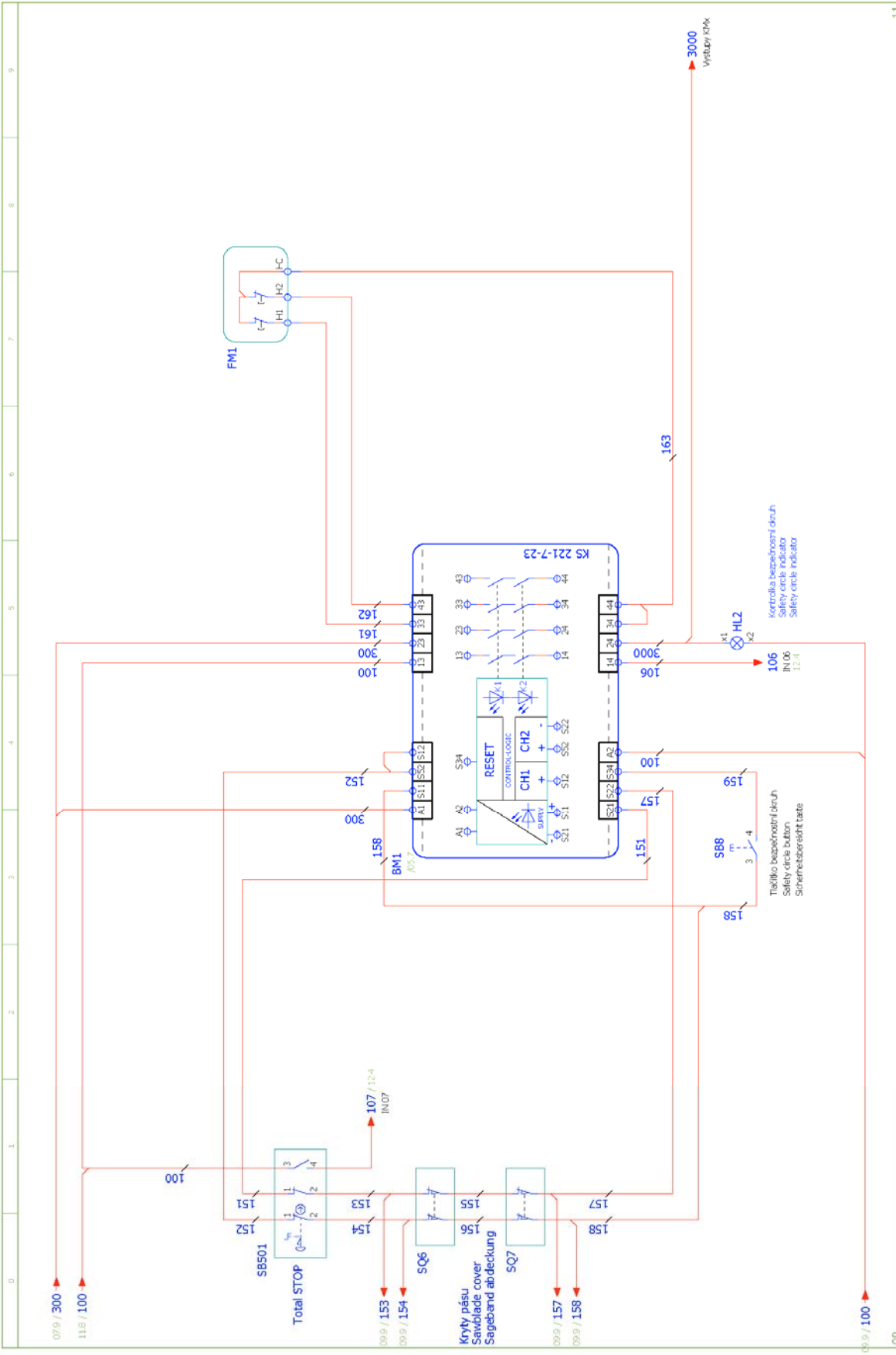


07	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Meschine: Extend 1120.1120	Název stranky/Name page/Name sheet: Vstupy/Inputs/Eingänge	09
			Doc.No.: ES.6430-209A3.4	List/Page/
			U.proj./Project/Projekt:	Seite: 06
			Zpracoval/Processed/Hat verarbeitelt: Viena	Leib/Leaves/
			Datum/Date/Datum: 1.3.2010	Seiten: 17

**Schemata
Schemata
Schematics**

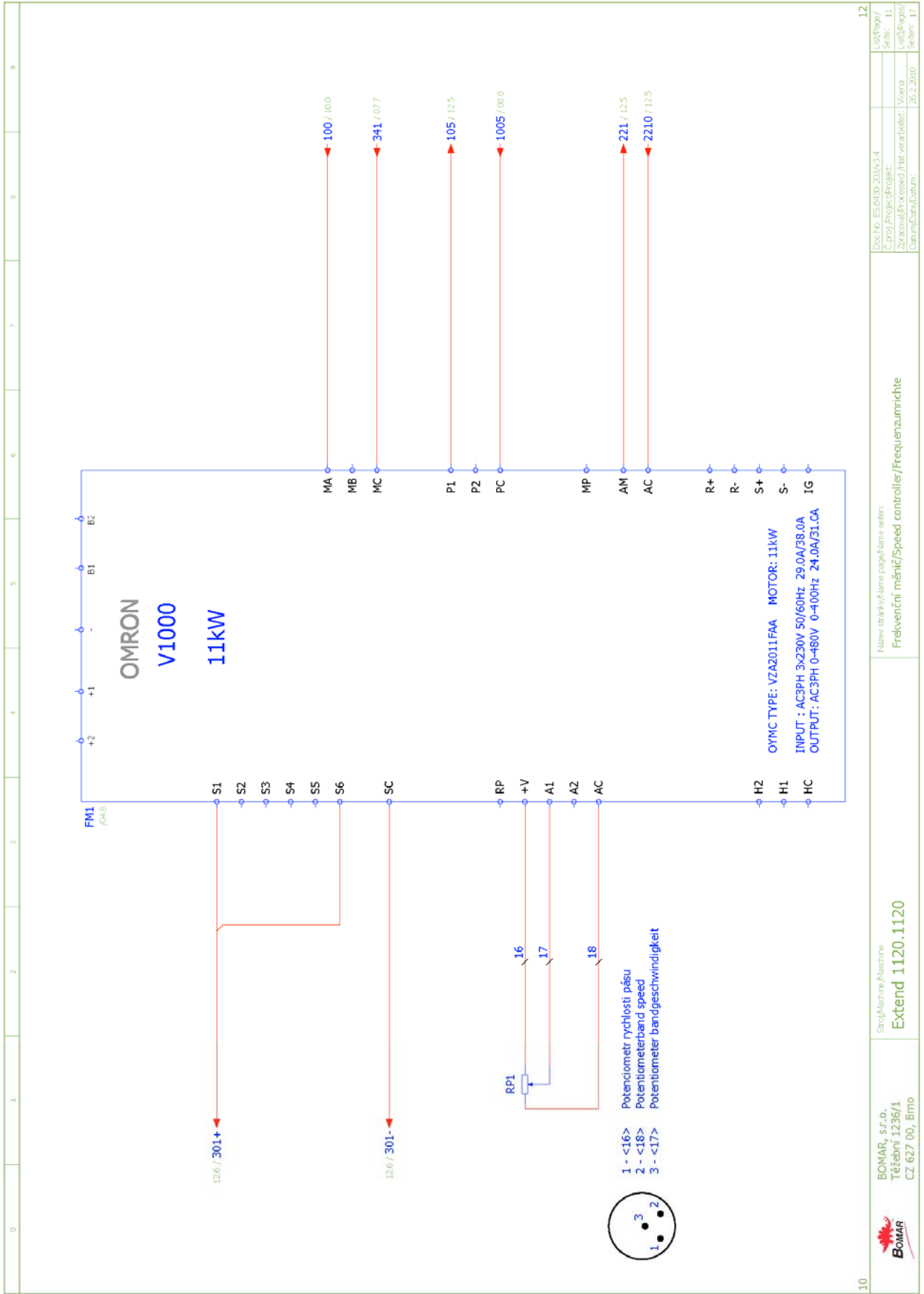


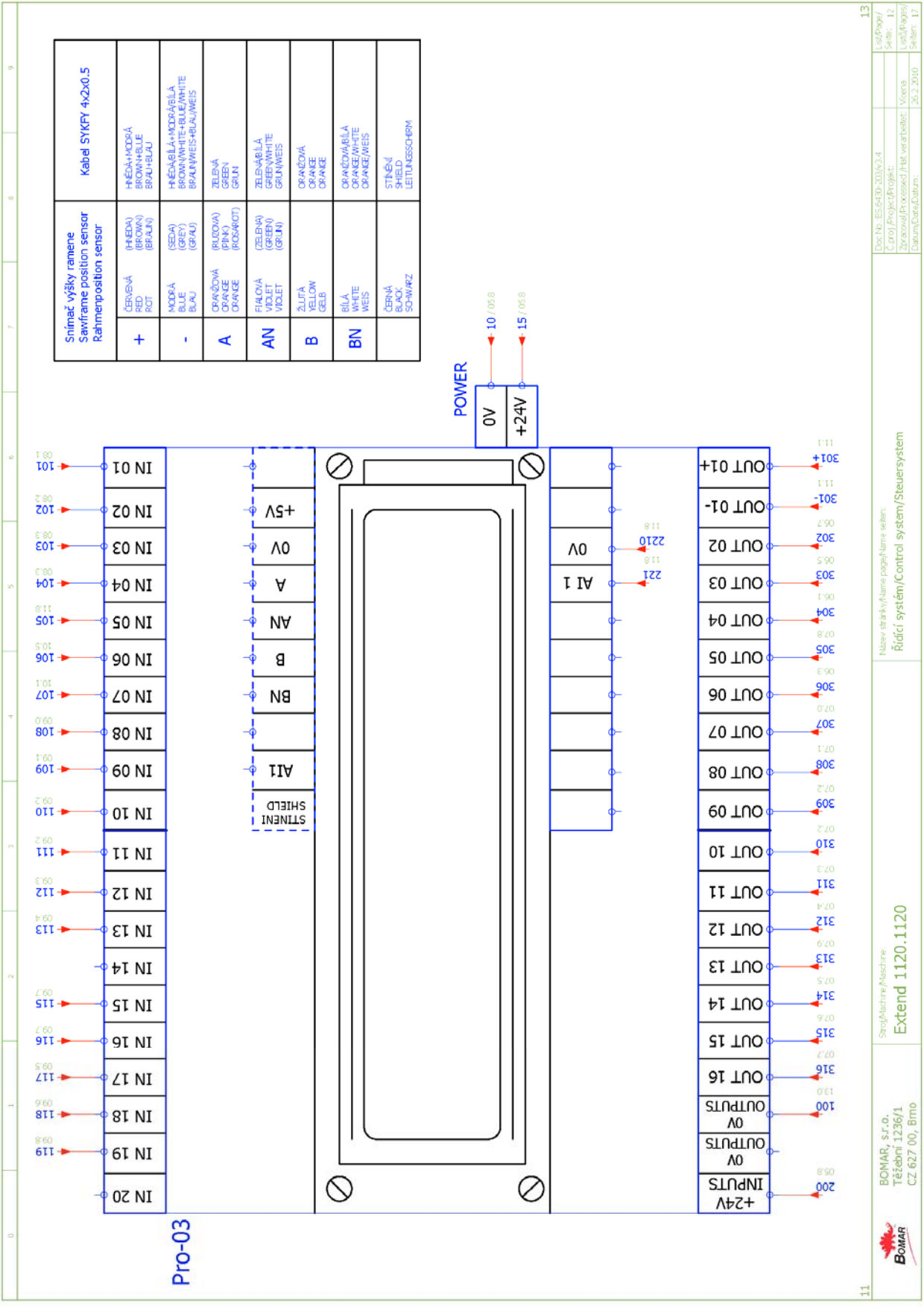
08	Stroj/Machine/ Maschine Extend 1120.1120		Název/dřáček/název page/name/seite: Tlačítka ovládací panel/Button control panel/Taste Bedienpult	Doc.No.: ES.6430-209A3.4 C. Proj./Project/Projekt: Zpracoval/Processed/ hat verarbeit.: Viena Datum/Date/Datum: 26.2.2010	10
	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Bimo				List/Page/ Seite: 09 List/Page/ Seite: 17



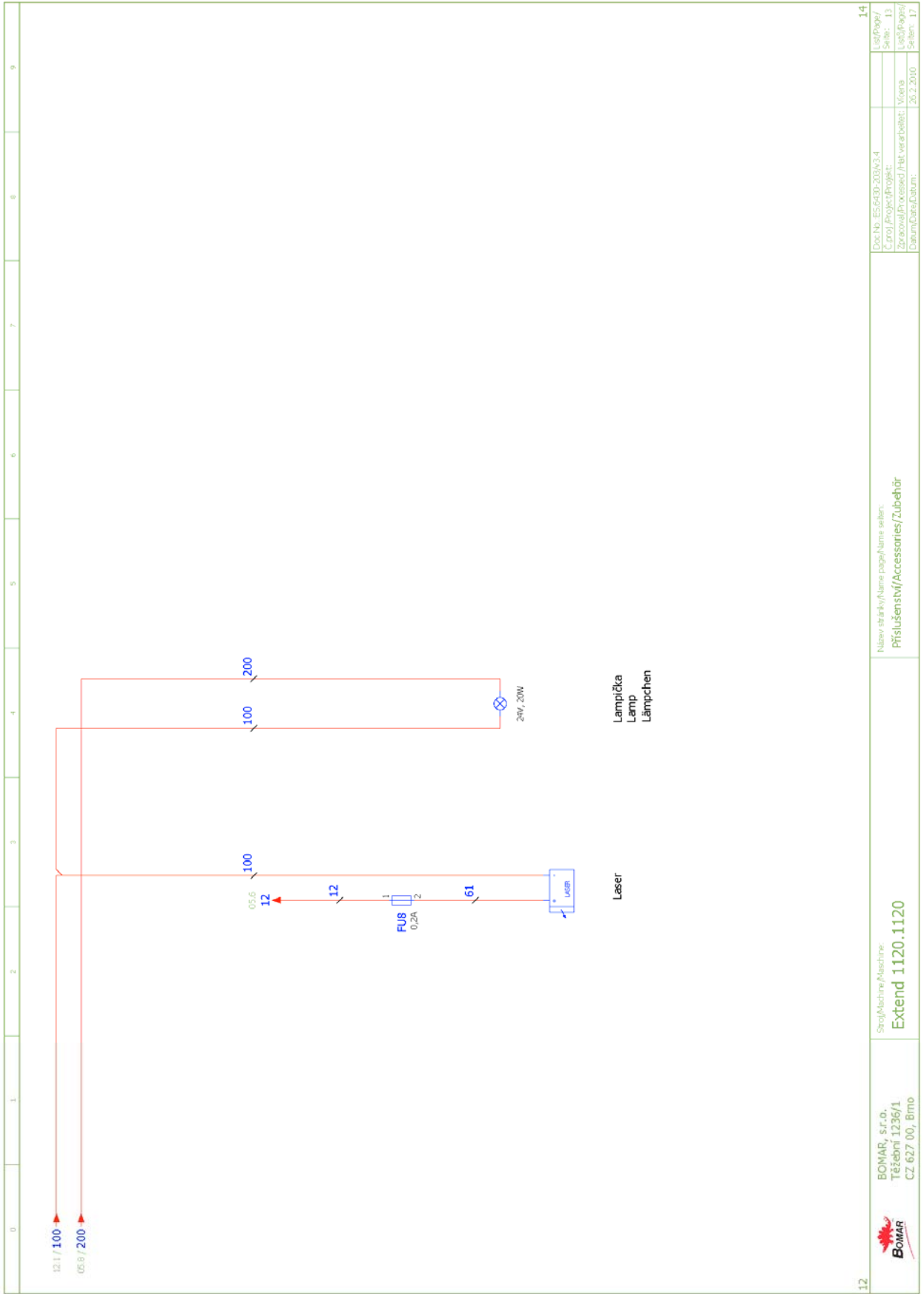
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Stroj / Machine / Maschine: Extend 1120.1120	List / Paper / Seite: 10 List / Paper / Seite: 17
Název obrázků / Name pages / Name: seřazen. Bezpečnostní okruh / Safety circle / Sicherheitsbereich	

**Schemata
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Schematics**

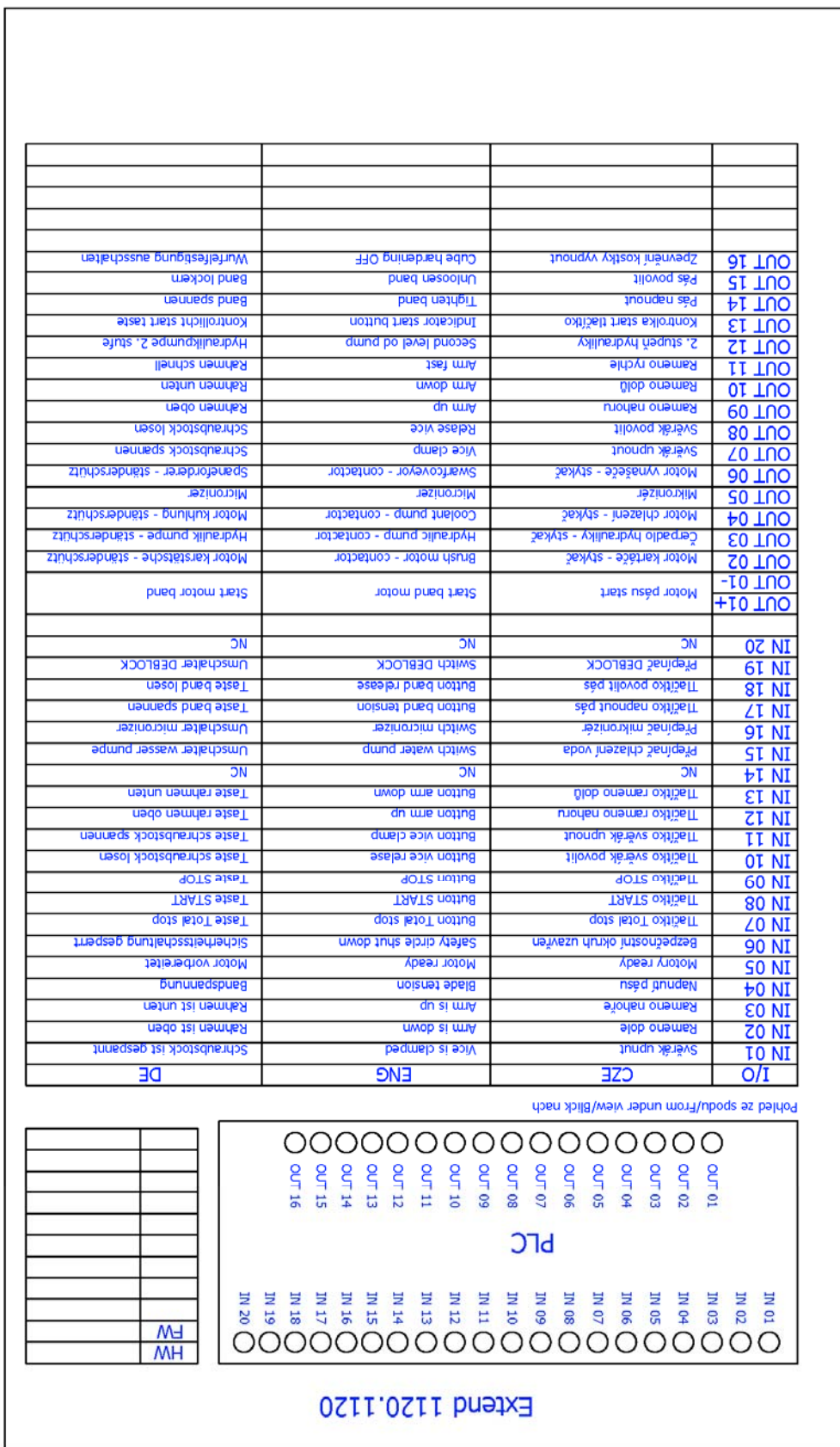




Schemata
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Schematics



12	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Břmo	Stroj/Machine/Maschine Extend 1120.1120	Název/dřelky/Name page/Name seten: Přístušenství/Accessories/Zubehör	Doc.No.: ES-6100-2010-3.4 C. proj./Project/Projekt: Zpracoval/Processed/Verarbeitet: Vienna Datum/Date/Datum: 26.2.2010	14 List/Page/ Seite: 13 List/Page/ Seite: 17
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13

Doc No: ES-6430-2004/3.4
 C:proj/Projekt/Projekt:
 Zpracoval/Processed/Just verarbeit: Viena
 Datum/Date/Datum: 1.3.2010

15

15
 List/Sheet:
 Seite: 14
 List/Sheet:
 Seiten: 17

Název obrázku/Name page/Name sheet:
 I/O řídicí systém / I/O Control station / I/O Steuerung
 Extend 1120.1120

Stroj/Machine/ Maschine:
 BOMAR, s.r.o.
 Těšební 1236/1
 CZ 627 00, Bimo

0	1	2	3	4	5	6	7	8	9
Souhrnný kusovník artiklů									
Typ přístroje	Objednávací číslo	Výrobce	Skladové číslo	Množství					
Bezpečnostní koncový spínač	QK58	KEDU	91.173.012	2					
Bezpečnostní modul	SINA064K	WIELAND	91.051.026	1					
Dioda 1A	IN4007		91.280.004	11					
Dvojčlátko NAHORU/DOLŮ	M22-DDL-W-S*	MOELLER	91.060.054	1					
Dvojčlátko START/STOP	M22-DDL-W-S-	MOELLER	91.060.034	1					
Dvojčlátko světlák POVOLIT/UPNOUT	M22-DDL-W-S*	MOELLER	91.060.055	1					
Filtr k frekvenčnímu měnič 11kW	A1000-FV 3050-RE	OMRON	91.012.020	1					
Filtr RFC vývodový	FBOPR1624		91.041.015	4					
Frekvenční měnič 11kW 3x230V	VZA2011FAA	OMRON	IFS	1					
Hlavice 2 polohového přepínače	M22-WKV	MOELLER	91.060.037	1					
Hlavice 3 polohového přepínače	M22-WRK3	MOELLER	91.060.051	1					
Hlavice hřibového ovládače do krabičky	M22-LED-W	MOELLER	91.060.030	1					
Hlavice hřibového ovládače do krabičky	M22-PVT 263467	MOELLER	91.060.030	1					
Hlavice prosvětleného tlačítka žlutá	M22-DL-Y	MOELLER	91.060.053	1					
Hlavice tlačítka černá	M22-D-S	MOELLER	91.060.035	2					
Hlavní vypínač 63 A	VCF3-63A	TELEMECANIQUE	91.170.011	1					
Koncový spínač	D4N-4A31	OMRON	91.173.007	2					
Koncový spínač	D4N-4A62	OMRON	IFS	1					
Krabička na 2 tlačítka	M22-I2	MOELLER	91.190.024	1					
Lampička 12V, 20W	LBP-B-302	RNDR Zdeněk Martinásek	91.100.103	1					
Laser	Laser		91.100.105	1					
Motorový jistič 0.25...0.4 A	GZ1M03	TELEMECANIQUE	91.235.022	2					
Motorový jistič 0.63...1A	GZ1M05	TELEMECANIQUE	91.235.023	1					
Motorový jistič 4...6.3 A	GZ1M10	TELEMECANIQUE	91.235.026	1					
Patice relé	95.95.3	FINDER	91.051.003	1					
Pojistka trubičková 0.2A, 5x20	F0,2A/250V	ESKA	91.230.037	2					
Pojistka trubičková 0.5A, 5x20 pomalá	F0,5A/250V	ESKA	91.230.011	1					
Pojistka trubičková 1A, 5x20 pomalá	F1A/250V	ESKA	91.230.003	1					

Souhrnný kusovník artiklů

Typ přístroje	Objednávací číslo	Výrobce	Skladové číslo	Množství
Pojistka trubičková 2A, 5x20	F2A/250V	ESKA	91.230.001	2
Pojistka trubičková 6.3A, 5x20 pomalá	F6.3A/250V	ESKA	91.230.002	1
Pojistka válcová 63A, 14x51 rychlá	PV14 63A GG	OEZ	91.230.018	3
Pojistkové pouzdro	WK4/THS15...U	WIELAND	91.251.102	7
Pojistkový odpiňací pro válcové vložky ver. 14	OPV14/3	OEZ	91.241.003	1
Pomocný kontakt motorového jističe	GZ1AN11	TELEMECANIQUE	91.046.004	8
Potenciometr 4k7	TP195 4k7-N20A	TES-Ostrava	91.283.002	1
Relé	40.52.9.024	FINDER	91.051.001	1
Rozpínací jednotka	M22-KC01	MOELLER	91.061.025	1
Rozpínací jednotka na adaptér	M22-K01	MOELLER	91.061.024	1
Řídicí systém Pro_03	Ridici system Pro_03	BOMAR s.r.o.	265.911	1
Signálka zelená na adaptér	M22-LED-G	MOELLER	91.061.023	1
Spínací jednotka	M22-KC10	MOELLER	91.061.030	7
Spínací jednotka s adaptérem	M22-K10	MOELLER	91.061.021	8
Stykač	DIL EM-10-G	MOELLER	91.040.020	4
Svorka rychloupínací	Svorka rychloupínací	WIELAND	91.250.009	3
Symbol ŠIPKA	Symbol ŠIPKA	MOELLER	91.062.002	2
Toroidní transformátor	1502304002015	ELEKTRO-KARBAN s.r.o.	91.080.026	1
Ventilátor chlazení 230V, 50Hz, 0.12A	RAH127861-C	XFAN	91.015.105	1
Zdroj	Zdroj v3	BOMAR s.r.o.	265.912	1
Žárovka 24V, 20W	MR 16	Orbitec	93.017.107	1

15



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

Stroj/Machine/Modellnr:

Extend 1120.1120

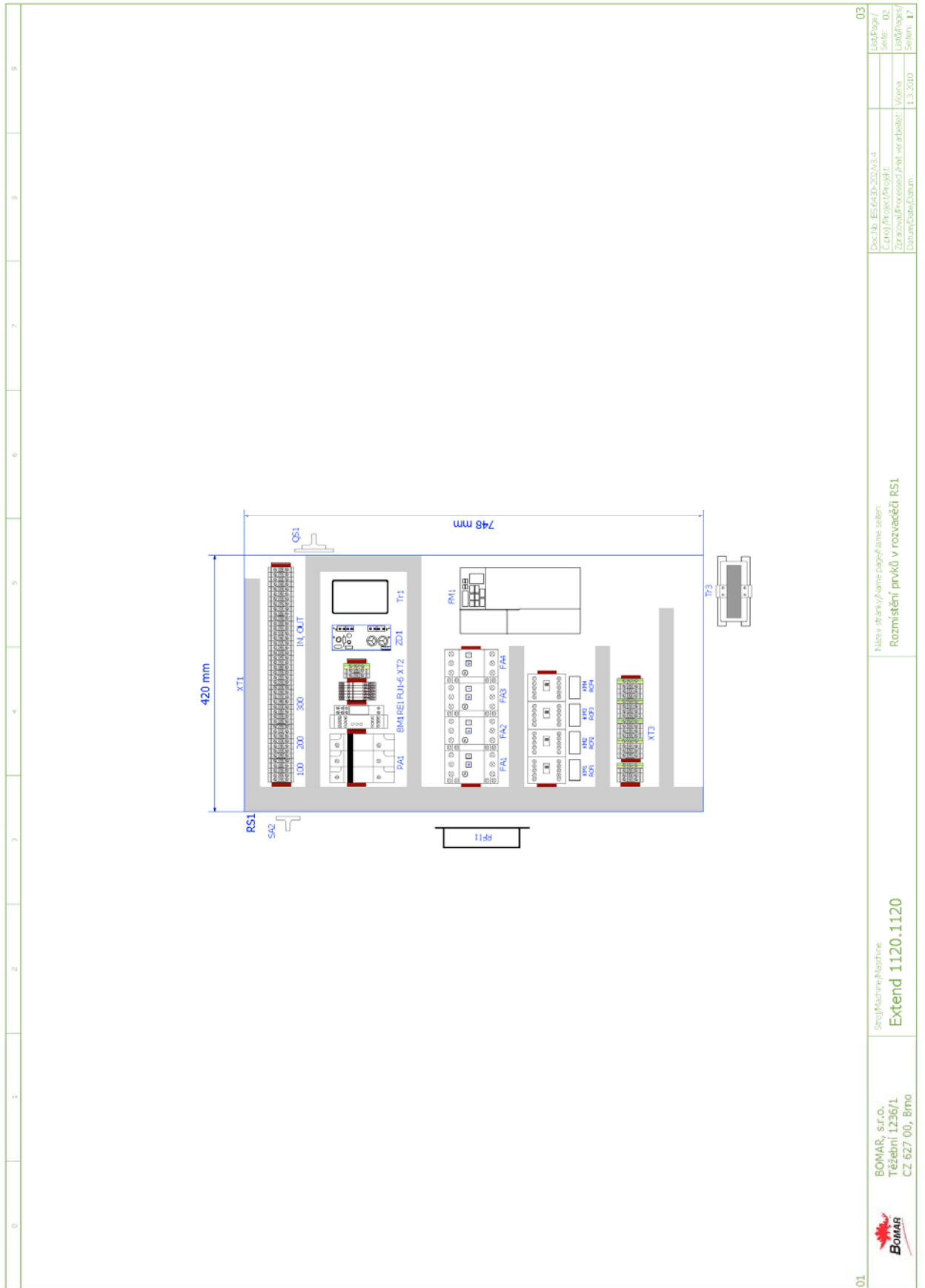
Název staršího/název popisu/název sestavy:

Souhrnný kusovník

Doc No.: ES-6109-203A/3.4
Coproj/Projekt/Projekt:
Zpracoval/Processed/Her verarbeitel: Vienna
Datum/Date/Datum: 1.3.2010

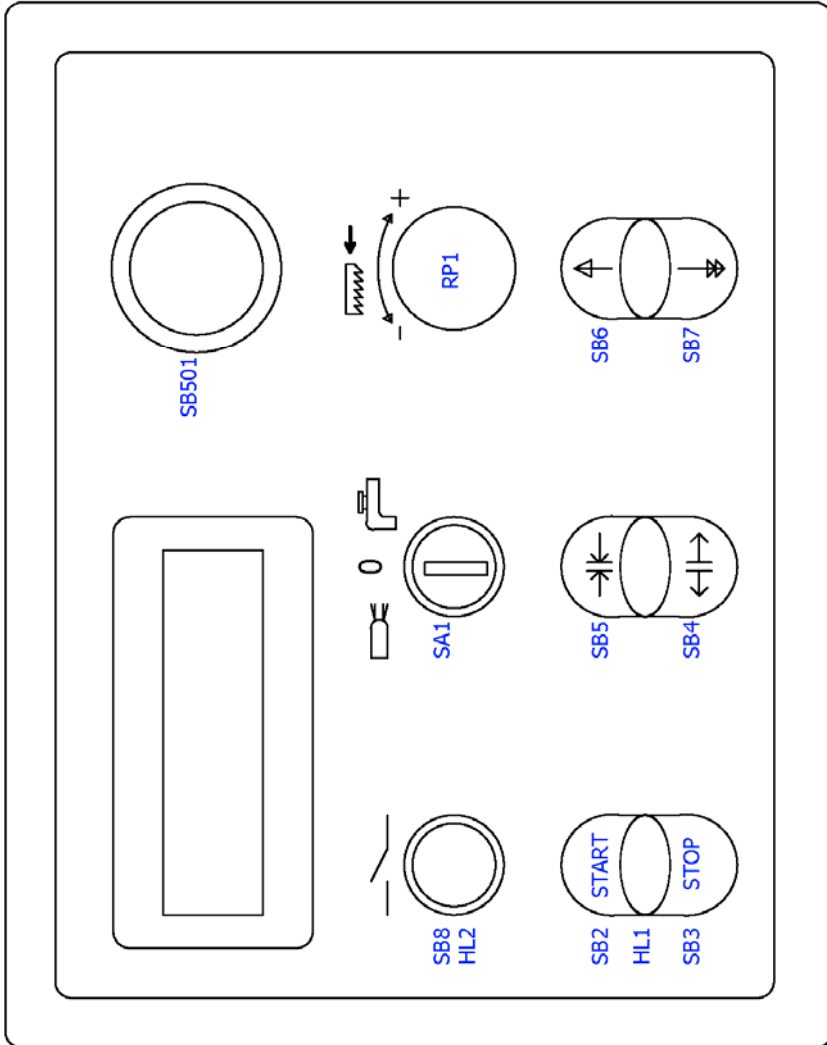
List/Seite/
Seite: 15/4
List/Seite/
Seite: 17

6.3. Elektrické schéma / Elektroschema / Wiring diagrams – 3×400 V, TN-C



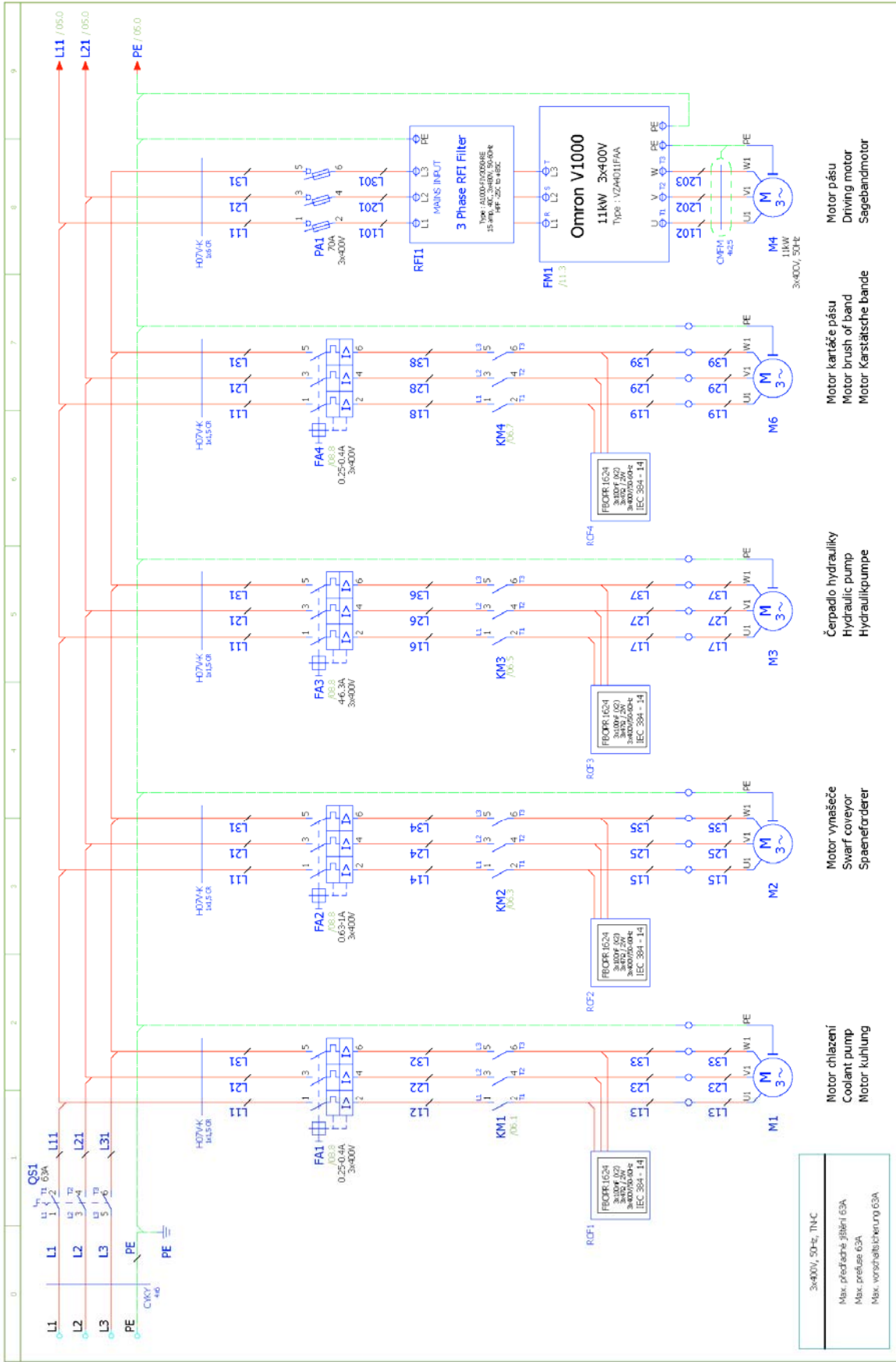
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0 1 2 3 4 5 6 7 8 9

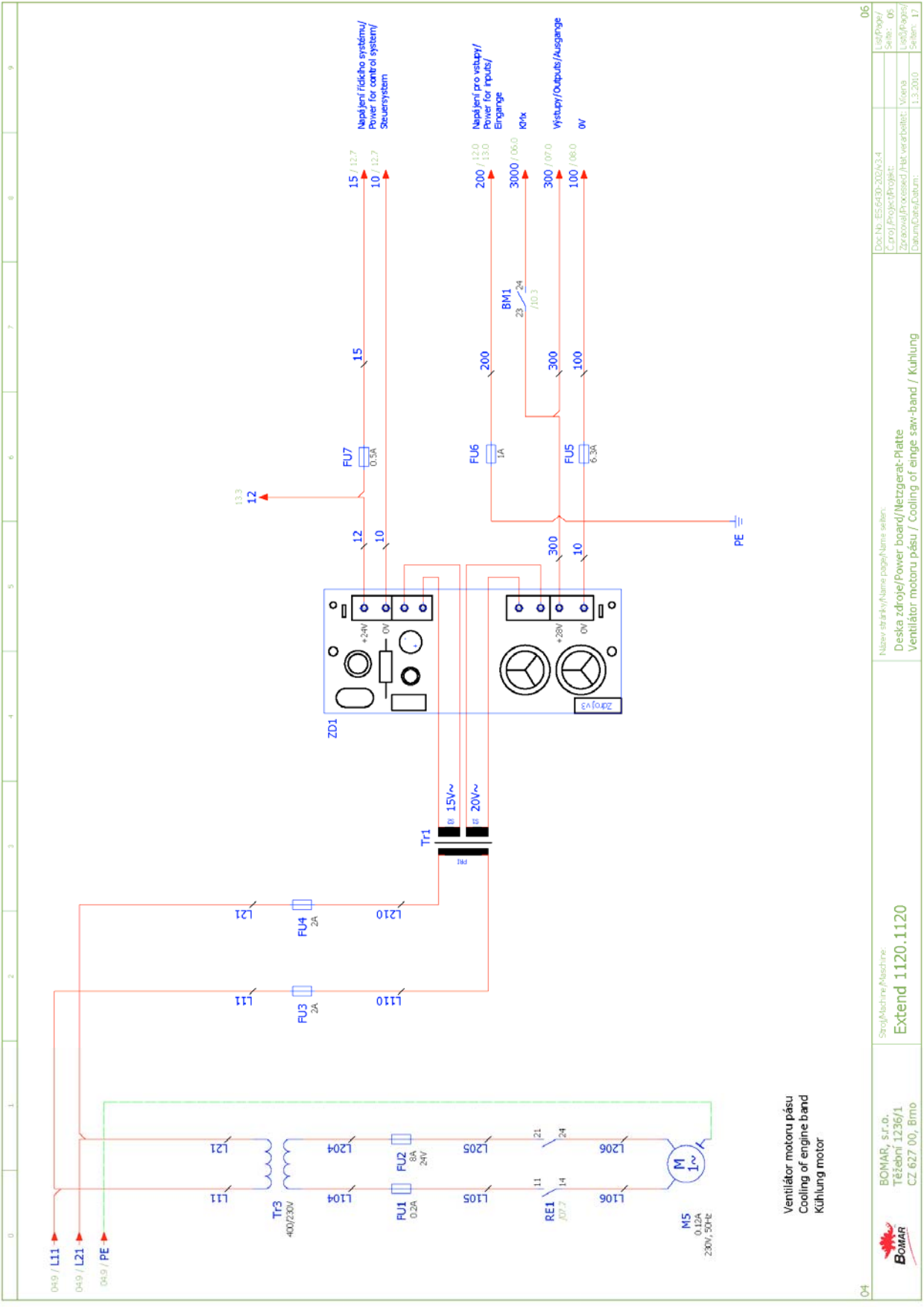


02	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Machine: Extend 1120.1120	Název stránky/Name page/Name sheet: Ovládací panel na rozváděči	Doc.No.: ES-6430-202/A3.4 C. proj./Project/Projekt: Zpracoval/Processed/Has verarbeit.: Vienna Datum/Date/Dateum.: 26.2.2010	04
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**Schemata
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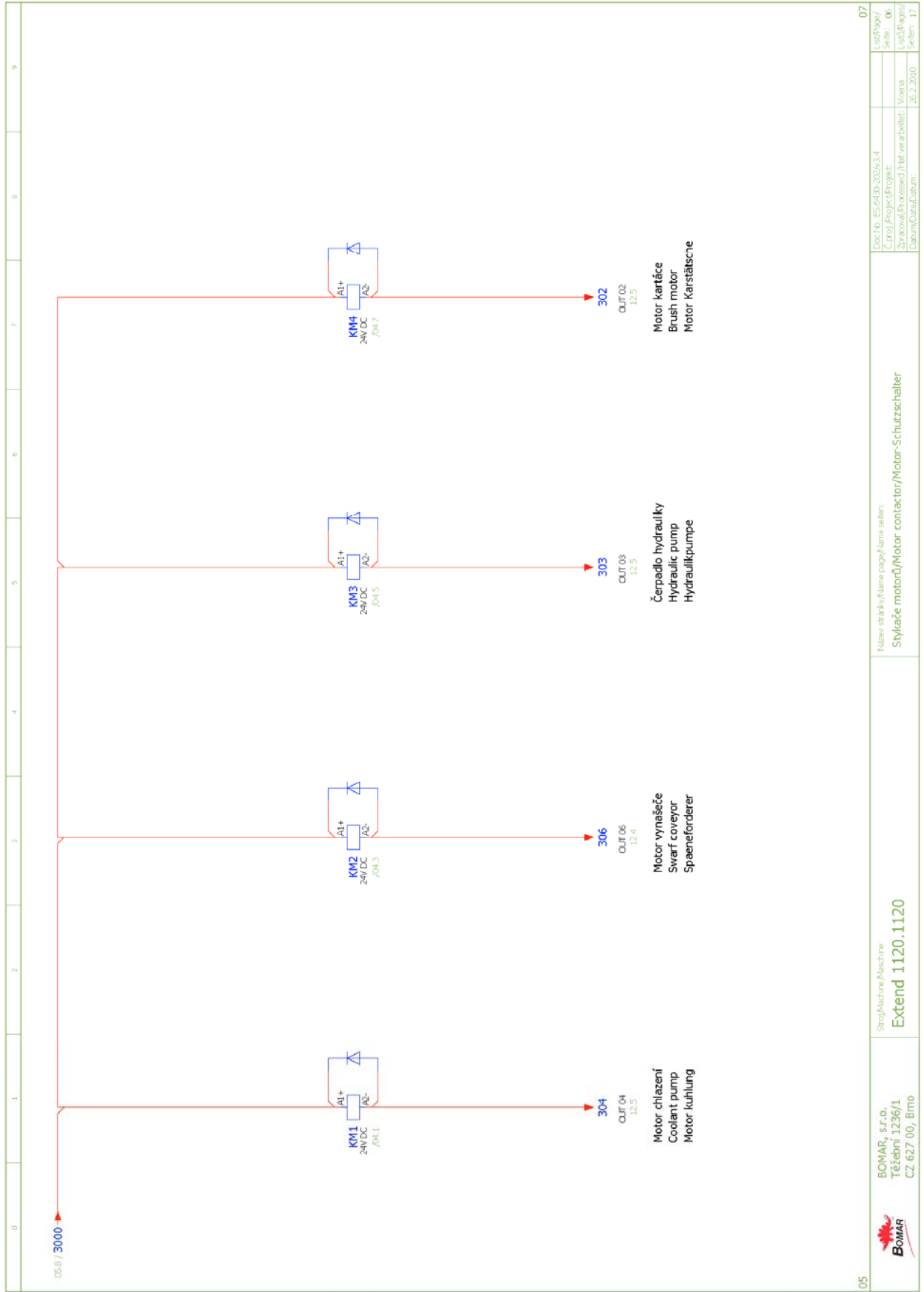


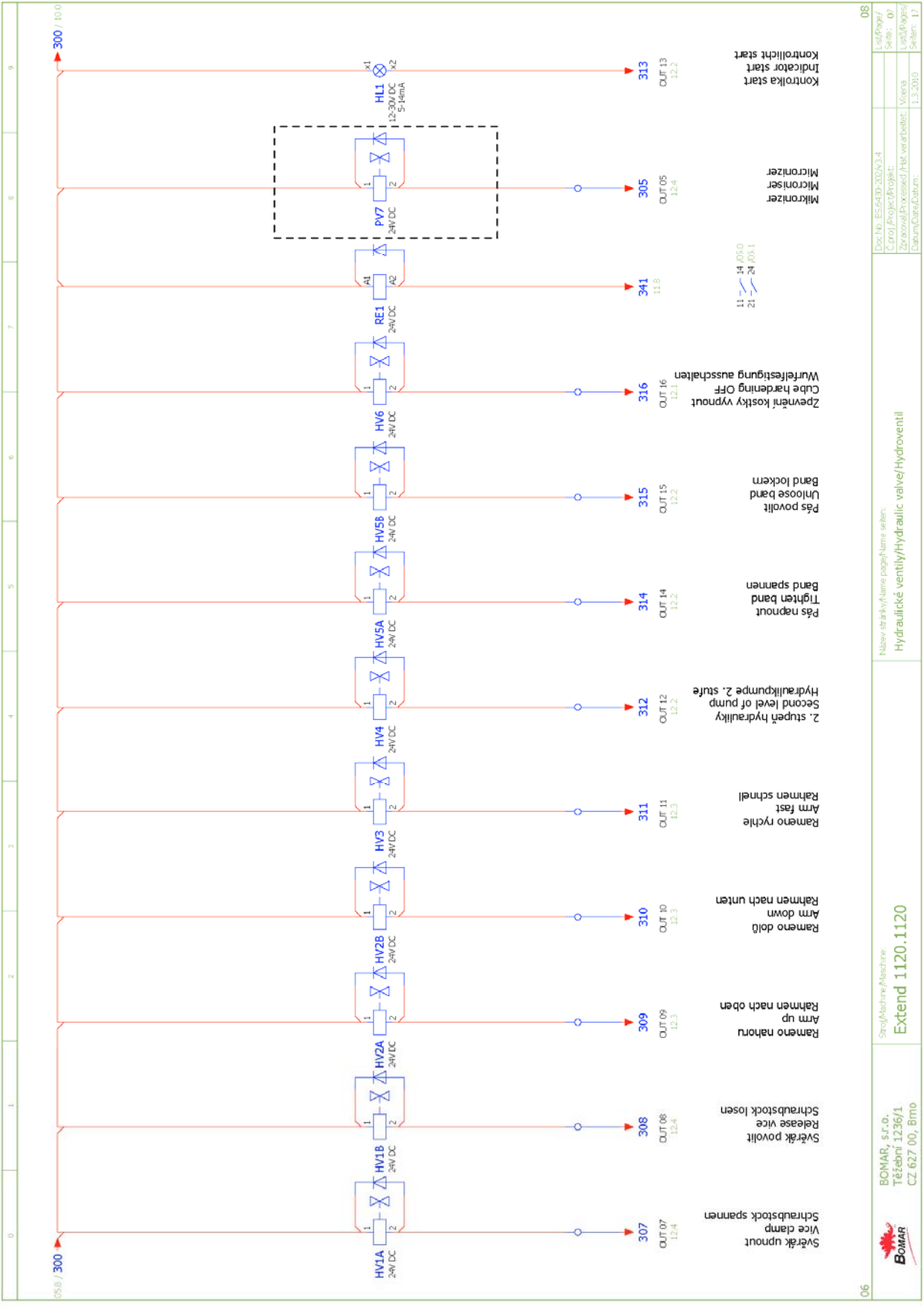
03	3x400V, 50Hz, TN-C Max. předávané žilní 63A Max. předávané 63A Max. vstříknutelný 63A	Stroj/Machine/Maschine Extend 1120.1120	Název dílny/název dílny/pagel name: seteln. Slovní část M1-M4/Power part M1-M4/Field partie M1-M4	Doc.No.: ES-6430-2024/3-4 C. Proj. Project/Projekt: Zpracoval/Processed/Has verarbeit.: V. Viana Datum/Data/Date: 26.2.2010	05 List/Sheet/ Series: 04 List/Range/ Seiten: 17
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Ventilátor motoru pásu
Cooling of engine band
Kühlung motor

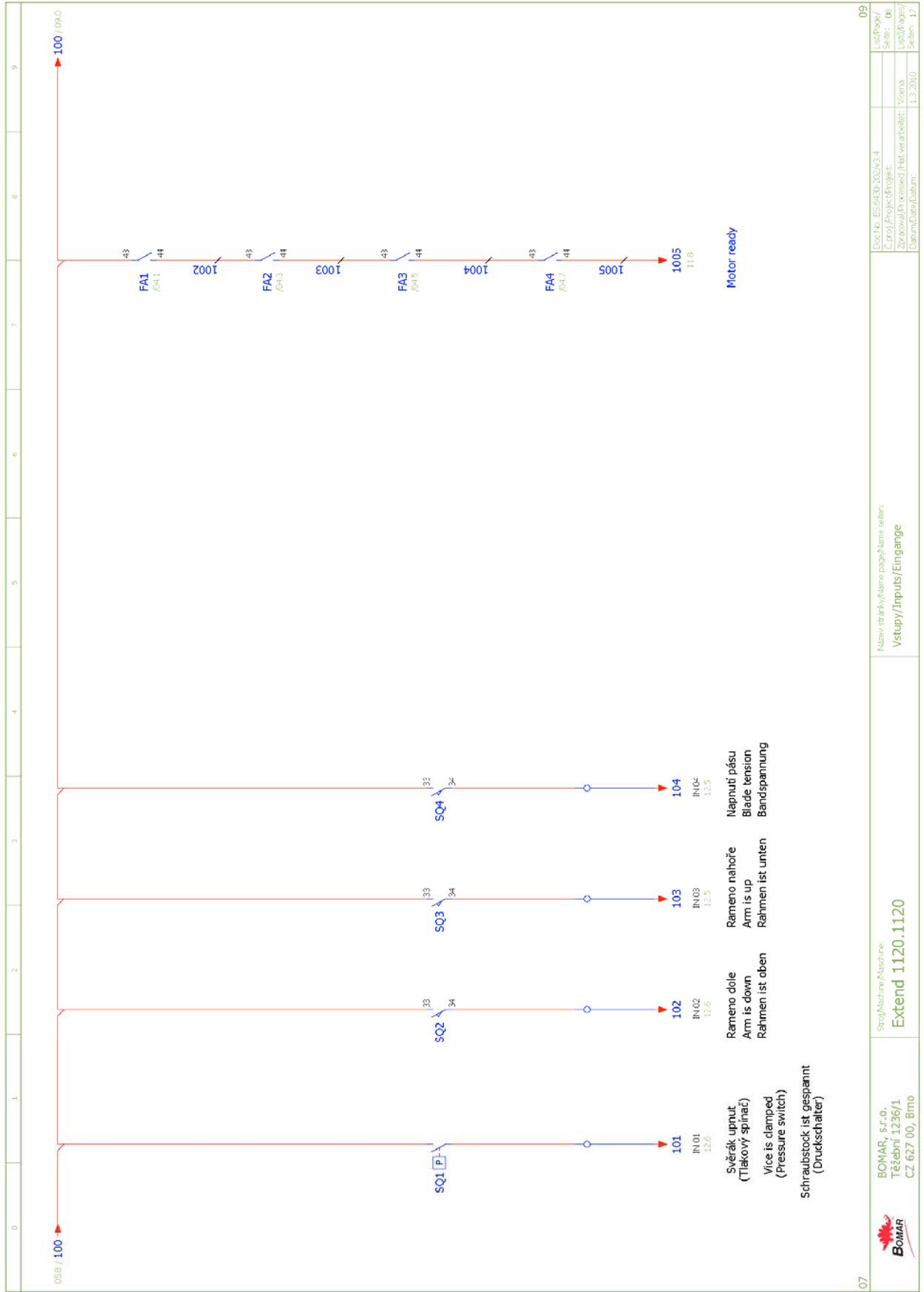
04	Stroj/Machine/Maschine: Extend 1120.1120	Název strojů/Name of machines: Deska zdroje/Power board/Netzgerat-Platte Ventilátor motoru pásu / Cooling of engine saw-band / Kühlung	Doc No.: ES-6430-2024/3.4 C. proj./Project/Projekt: Zpracováno/Processed/Verarbeitet: Viena Datum/Date/Datum: 1.3.2010	06
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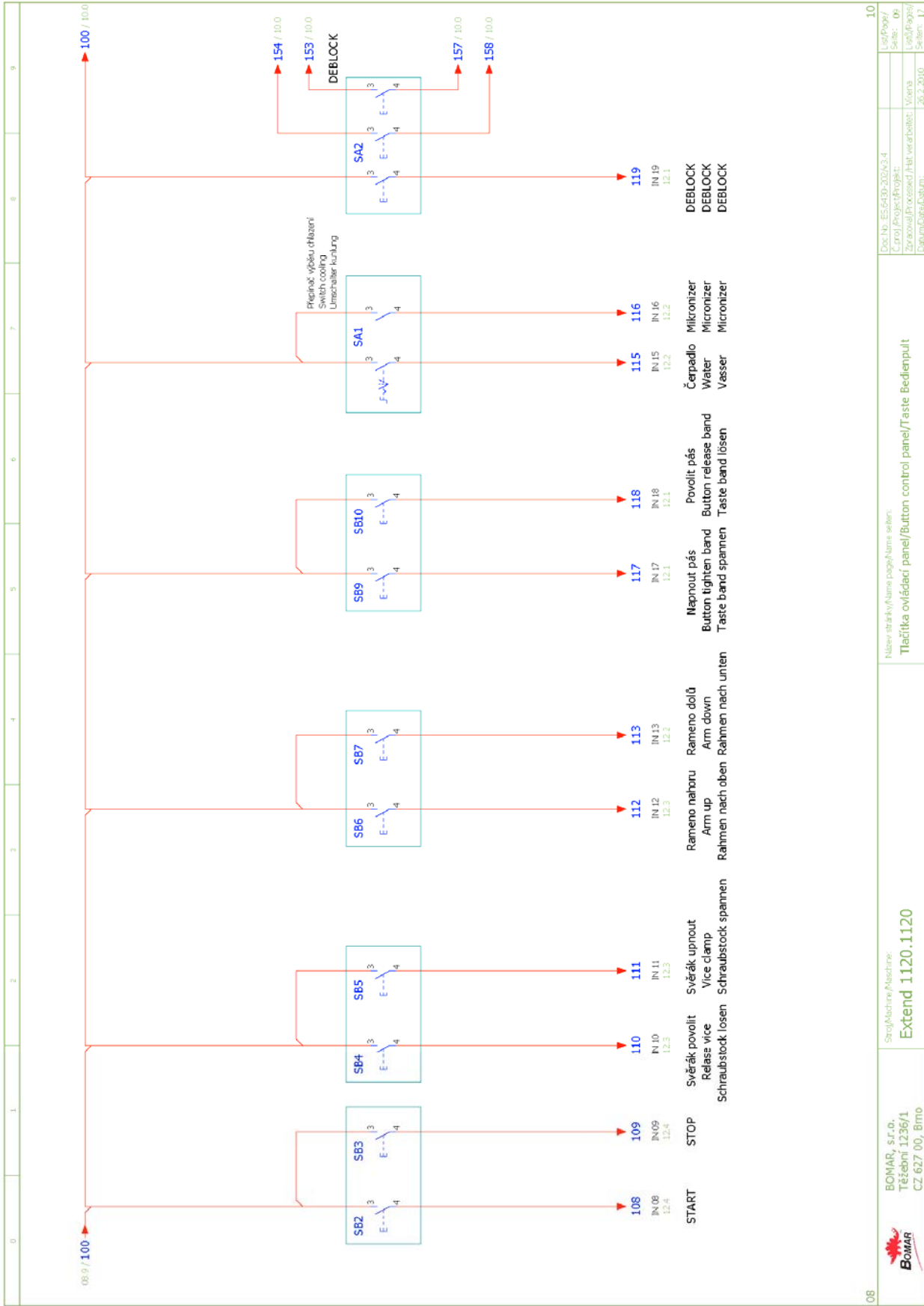


06	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Meschine: Extend 1120.1120	Název/draw/Name/Name: seten: Hydraulické ventily/Hydraulic valve/Hydroventil	08
			Doc No.: ES-6430-2024/3.4	List/Page/
			C. proj/Project/Projekt:	Series: 07
			Zpracoval/Processed/Has verarbeitel: M. Viana	List/Page/
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				1.3.2010

**Schemata
Schemas
Schematics**

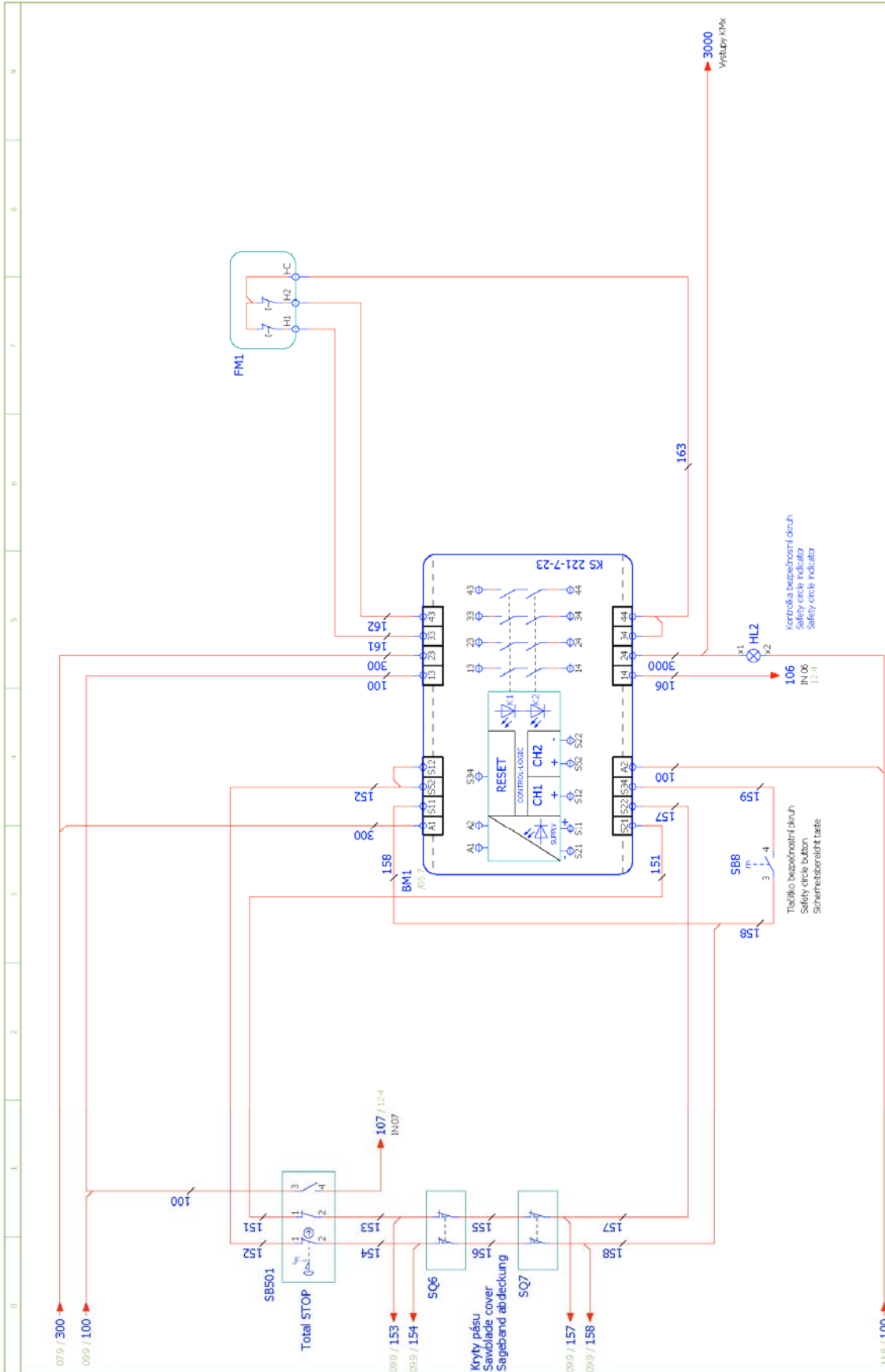


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Doc No.: ES-6430-2024-3.4 C. Proj / Projekt / Projekt: Zpracoval / Processed / Hat verarbeitete: Vienna Datum / Date / Datum: 1.3.2010	
List / Paper / Series: 06 List / Paper / Series: 17	
Name / strana / Name page / Name: seteln. Vstup / Inputs / Eingänge	Stroj / Machine / Maschine: Extend 1120.1120
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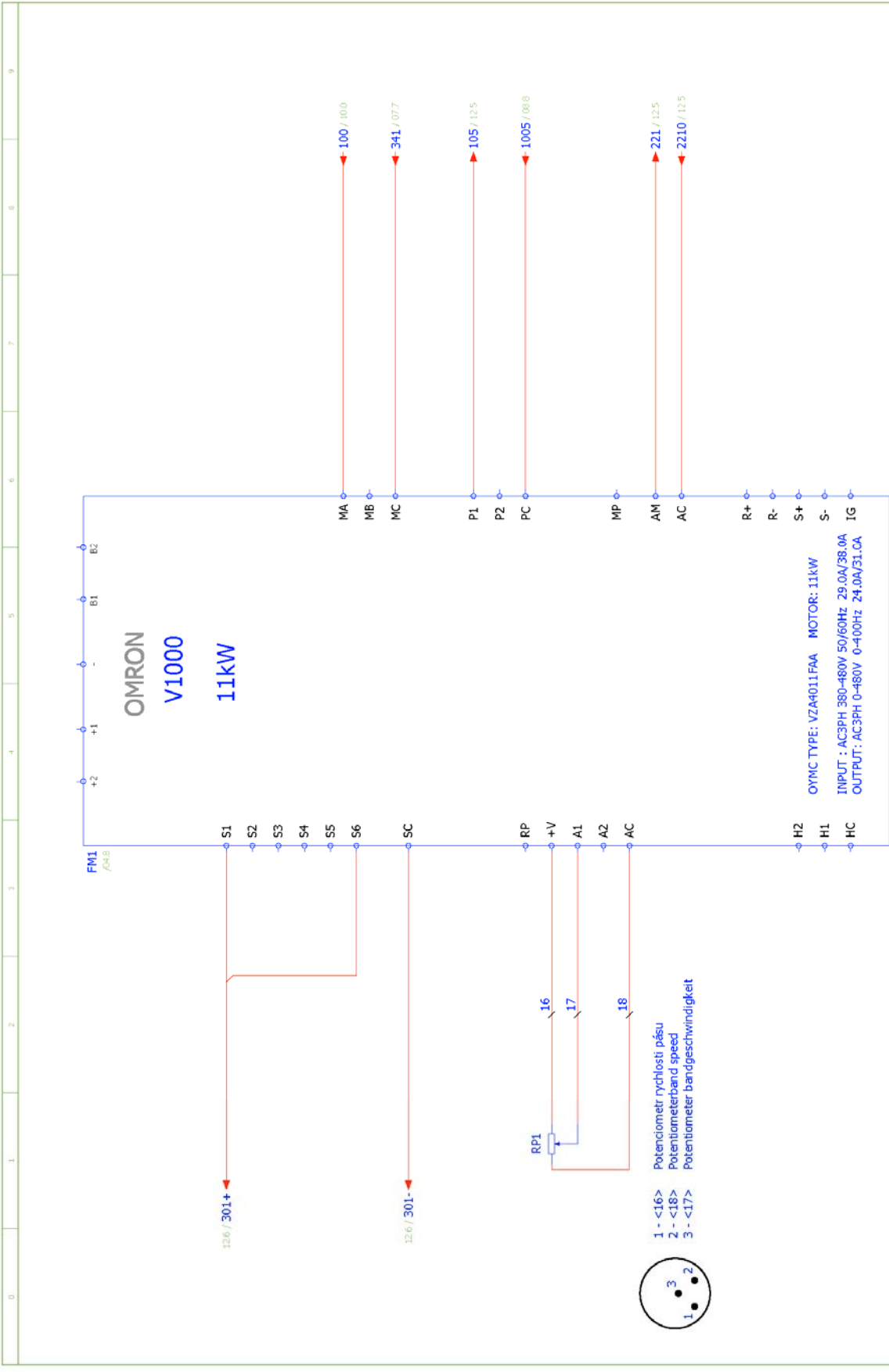


08	BOMAR, s.r.o. Těžební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Meschine: Extend 1120.1120	Název obráběcího/příslušenství/namen: seten: Tlačítka ovládací panel/Button control panel/Taste Bedienpult	Doc.No.: ES-6430-2024/3.4 C. proj./Project/Projekt: Zpracoval/Processed/hat verarbeitel: Viena Datum/Date/Datum: 20.2.2020	10
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Schemata Schemata Schematics

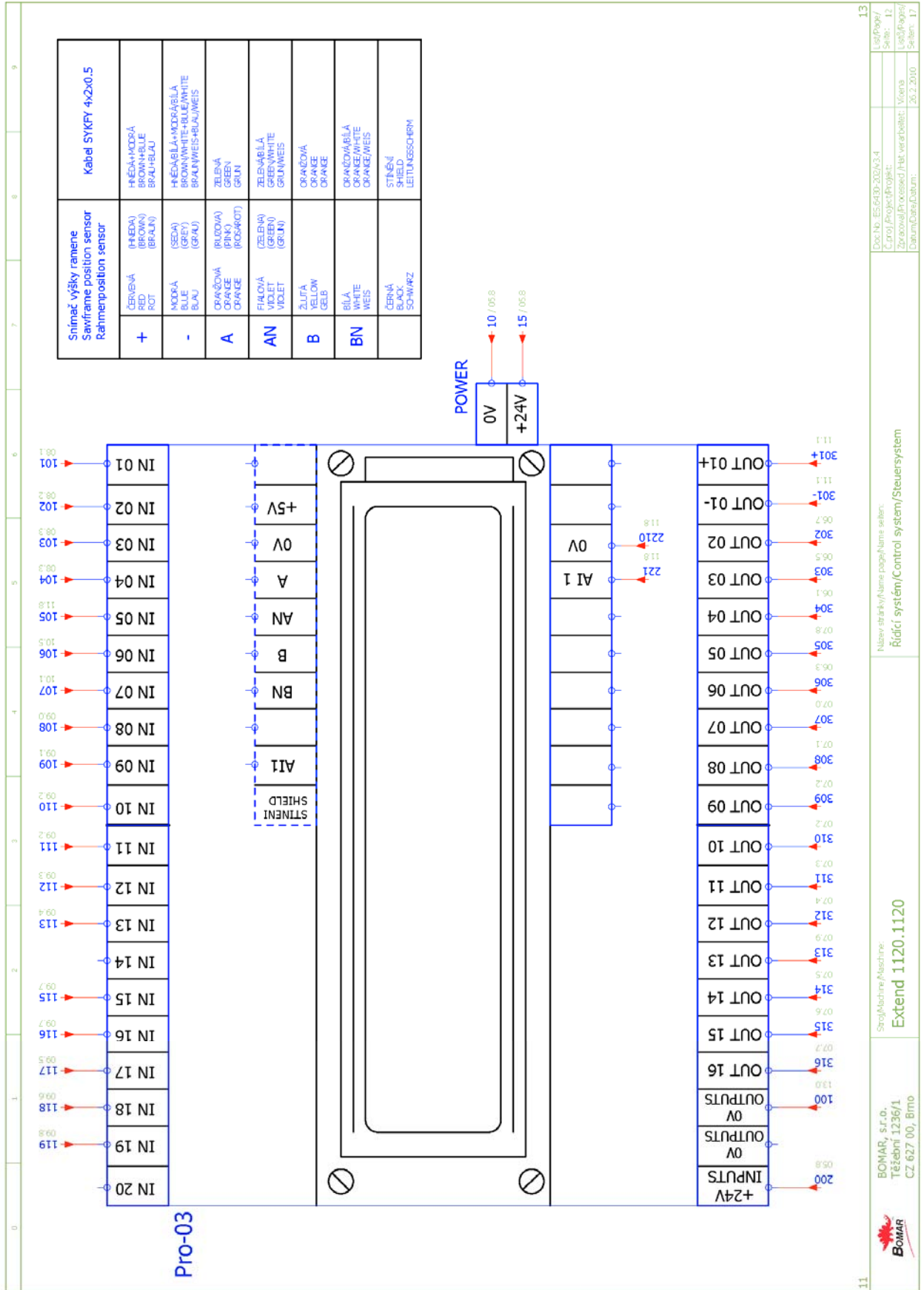


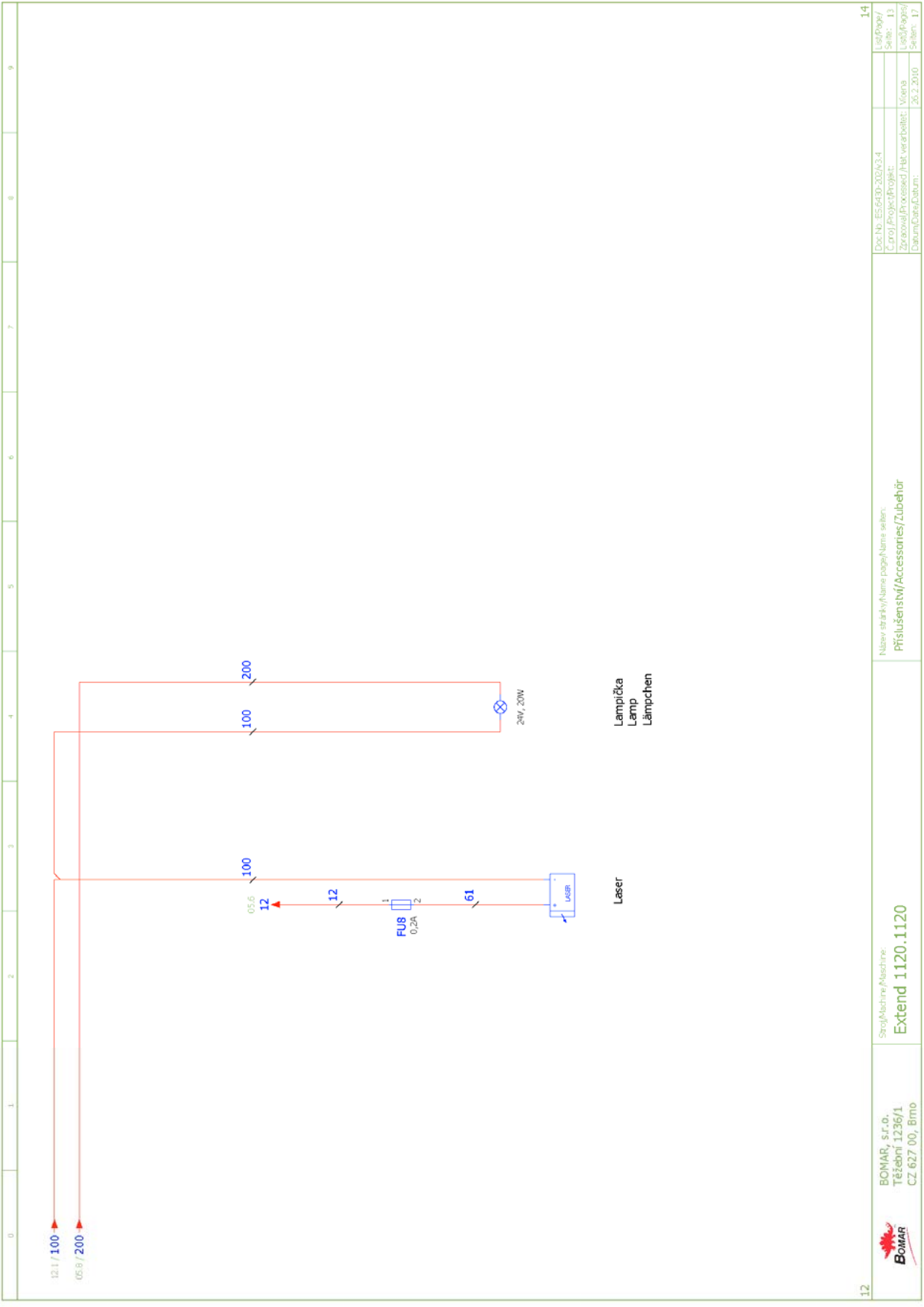
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Stroj/Machine/Maschine: Extend 1120.1120																	
BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo																	
Doc.No.: ES.6100-2024/3.4 C. proj./Project/Projekt: Zpracoval/Processed/Verarbeitet: Viena Datum/Date/Datum: 4.3.2010																	
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10	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Bimo	Stroj/Machine/Meschine: Extend 1120.1120	Název strojky/Name page/Name seten: Frekvencní měnič/Speed controller/Frequenzumrichter	Doc No: ES-6430-2024/3.4 C. proj /Project/Projekt: Zpracoval /Processed /hat verarbeitel: V. Viana Datum/Date/Datum: 26.2.2020	12
				List/Page/ Seite: 11 List/Page/ Seite: 17	

**Schemata
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12	BOMAR, s.r.o. Těšební 1236/1 CZ 627 00, Břmo	Stroj/Machine/Meschine: Extend 1120.1120	Název/drawing/Name page/Name sheet: Přístušenství/Accessories/Zubehör	Doc No.: ES-6430-2024/3.4 C. proj./Project/Projekt: Zpracoval/Processed/Hat verarbeit.: Viena Datum/Date/Datum: 26.2.2000	List/Paper/ Seite: 13 List/Paper/ Seiten: 17
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Schemata
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I/O	CZE	ENG	DE
IN 01	Světlík upnutí	Vice is clamped	Schraubstock ist gespannt
IN 02	Rameno dole	Arm is down	Rahmen ist oben
IN 03	Rameno nahore	Arm is up	Rahmen ist unten
IN 04	Napnutí pásu	Blade tension	Bandspannung
IN 05	Motor ready	Motor ready	Motor vorbereitet
IN 06	Bezpečnostní okruh uzavřen	Safety circle shut down	Sicherheitsschaltung gesperrt
IN 07	Tlačítko Total stop	Button Total stop	Taste Total stop
IN 08	Tlačítko START	Button START	Taste START
IN 09	Tlačítko STOP	Button STOP	Taste STOP
IN 10	Tlačítko světlík povolit	Button vice release	Taste schraubstock lösen
IN 11	Tlačítko světlík upnout	Button vice clamp	Taste schraubstock spannen
IN 12	Tlačítko rameno nahoru	Button arm up	Taste rahmen oben
IN 13	Tlačítko rameno dolů	Button arm down	Taste rahmen unten
IN 14	NC	NC	NC
IN 15	Připínač chlazení vody	Switch water pump	Umschalter wasser pumpe
IN 16	Připínač mikronizér	Switch micronizer	Umschalter micronizer
IN 17	Tlačítko napnout pás	Button band tension	Taste band spannen
IN 18	Tlačítko povolit pás	Button band release	Taste band lösen
IN 19	Připínač DEBLOCK	Switch DEBLOCK	Umschalter DEBLOCK
IN 20	NC	NC	NC
OUT 01+	Motor pásu start	Start band motor	Start motor band
OUT 02	Motor kartáče - stykač	Brush motor - contactor	Motor kartátsche - ständerschütz
OUT 03	Čerpadlo hydrauliky - stykač	Hydraulic pump - contactor	Hydraulik pumpe - ständerschütz
OUT 04	Motor chlazení - stykač	Coolant pump - contactor	Motor kühlung - ständerschütz
OUT 05	Mikronizér	Micronizer	Mikronizer
OUT 06	Motor vlnašeče - stykač	Swarfteovyor - contactor	Spanerforderer - ständerschütz
OUT 07	Světlík upnout	Vice clamp	Schraubstock spannen
OUT 08	Světlík povolit	Release vice	Schraubstock lösen
OUT 09	Rameno nahoru	Arm up	Rahmen oben
OUT 10	Rameno dolů	Arm down	Rahmen unten
OUT 11	Rameno rychle	Arm fast	Rahmen schnell
OUT 12	2. stupeň hydrauliky	Second level od pump	Hydraulikpumpe 2. stupe
OUT 13	Kontrolka start tlačítko	Indicator start button	Kontrolllicht start taste
OUT 14	Pás napnout	Tighten band	Band spannen
OUT 15	Pás povolit	Unloosen band	Band lockern
OUT 16	Zpemení kostky vypnout	Cube hardening Off	Wurfefestigung ausschalten

IN 01	IN 02	IN 03	IN 04	IN 05	IN 06	IN 07	IN 08	IN 09	IN 10	IN 11	IN 12	IN 13	IN 14	IN 15	IN 16	IN 17	IN 18	IN 19	IN 20	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
OUT 01	OUT 02	OUT 03	OUT 04	OUT 05	OUT 06	OUT 07	OUT 08	OUT 09	OUT 10	OUT 11	OUT 12	OUT 13	OUT 14	OUT 15	OUT 16					
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○					

PLC

Extend 1120.1120

Pohled ze spodu/From under view/Blick nach

Souhrnný kusovník artiklů

Typ přístroje	Objednáací číslo	Výrobce	Skladové číslo	Množství
Bezpečnostní koncový spínač	QKXS	KEDU	91.173.012	2
Bezpečnostní modul	SN44064K	WIELAND	91.051.026	1
Dioda 1A	IN4007		91.280.004	11
Dvojčladičko NAHORU/DOLŮ	M22-DDL-W-S*_	MOELLER	91.060.054	1
Dvojčladičko START/STOP	M22-DDL-W-S-	MOELLER	91.060.034	1
Dvojčladičko světlák POVOLIT/UPNOUT	M22-DDL-W-S*	MOELLER	91.060.055	1
Filtr k frekvenčnímu měnič 11kW	A1000-FIV 3050-RE	OMRON	91.012.020	1
Filtr RFC vývodový	FBOPR1624		91.041.015	4
Frekvenční měnič 11kW	VZA4011FAA	OMRON	91.012.030	1
Hlavice 2 polohového přepínače	M22-WKV	MOELLER	91.060.037	1
Hlavice 3 polohového přepínače	M22-WRK3	MOELLER	91.060.051	1
Hlavice hřibového ovládače do krabičky	M22-LED-W	MOELLER	91.060.030	1
Hlavice hřibového ovládače do krabičky	M22-PVT 263467	MOELLER	91.060.030	1
Hlavice prosvětleného tlačítka žlutá	M22-DL-Y	MOELLER	91.060.053	1
Hlavice tlačítka černá	M22-D-S	MOELLER	91.060.035	2
Hlavní vypínač 63 A	VCFS-63A	TELEMECANIQUE	91.170.011	1
Koncový spínač	D4N-4A31	OMRON	91.173.007	2
Koncový spínač	D4N-4A62	OMRON	IFS	1
Krabička na 2 tlačítka	M22-12	MOELLER	91.190.024	1
Lampička 12V, 20W	LBP-B-302	RNDR Zdeněk Martinásek	91.100.103	1
Laser	Laser		91.100.105	1
Motorový jistič 0,25...0,4 A	GZ1M03	TELEMECANIQUE	91.235.022	2
Motorový jistič 0,63...1A	GZ1M05	TELEMECANIQUE	91.235.023	1
Motorový jistič 4...6,3 A	GZ1M10	TELEMECANIQUE	91.235.026	1
Patice relé	95.95.3	FINDER	91.051.003	1
Pojistka trubičková 0,2A, 5x20	F0,2A/250V	ESKA	91.230.037	2
Pojistka trubičková 0,5A, 5x20 pomalá	F0,5A/250V	ESKA	91.230.011	1
Pojistka trubičková 1A, 5x20 pomalá	FLA/250V	ESKA	91.230.003	1

14



BOMAR, s.r.o.
Třebatín 1236/1
CZ 627 00, Břmo

Stroj/Machine/ Maschine:

Extend 1120.1120

Název stránky/Name of page/Name of sheet:

Souhrnný kusovník

15.a

Doc.No.: ES-6400-202/3.4

C.Proj./Project/Projekt:

Zpracoval/Processed/Verarbeitet:

Datum/Date/Datum:

List/Page/

Seite: 15

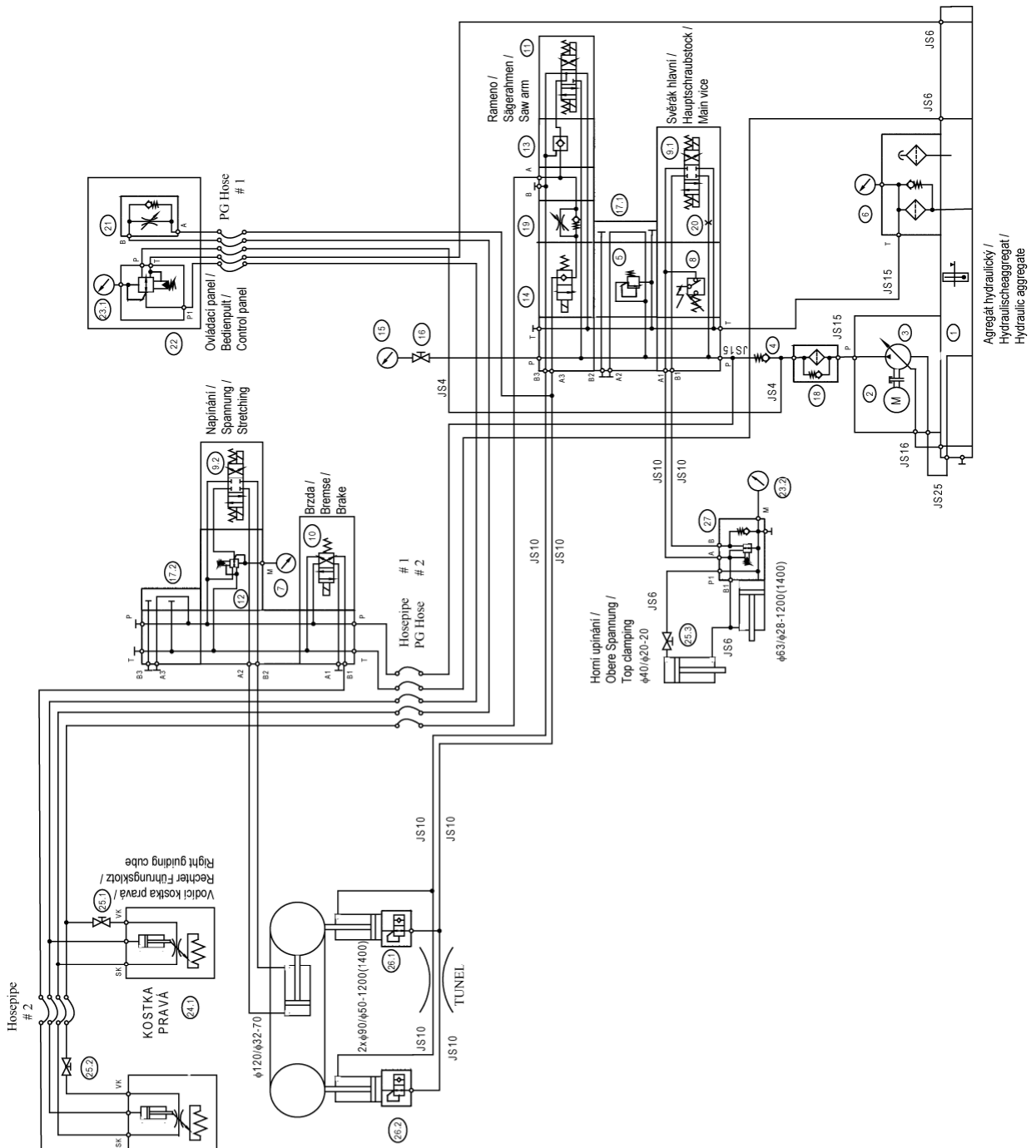
List/Page/

Seite: 17

Souhrnný kusovník artiklů

Typ přístroje	Objednatel číslo	Výrobce	Skladové číslo	Množství
Pojistka trubličková 2A, 5x20	F2A/250V	ESKA	91.230.001	2
Pojistka trubličková 6.3A, 5x20 pomalá	F6.3A/250V	ESKA	91.230.002	1
Pojistka válcová 63A, 14x51 rychlá	PV14 63A 6G	OEZ	91.230.018	3
Pojistkové pouzdro	WK4/THSE...U	WIELAND	91.251.102	7
Pojistkový odpiňáč pro válcové vložky vel. 14	OPV14/3	OEZ	91.241.003	1
Pomocný kontakt motorového jističe	GZ1AN11	TELEMECANIQUE	91.046.004	8
Potenciometr 4k7	TP195 4k7-N20A	TES-Ostrava	91.283.002	1
Relé	40.52.9.024	FINDER	91.051.001	1
Rozpínací jednotka	M22-KC01	MOELLER	91.061.025	1
Rozpínací jednotka na adaptér	M22-K01	MOELLER	91.061.024	1
Řídicí systém Pro_03	Řídicí systém Pro_03	BOMAR s.r.o.	265.911	1
Signálka zelená na adaptér	M22-LED-G	MOELLER	91.061.023	1
Spínací jednotka	M22-KC10	MOELLER	91.061.030	7
Spínací jednotka s adaptérem	M22-K10	MOELLER	91.061.021	8
Stykač	DIL EM-10-G	MOELLER	91.040.020	4
Svorka rychloupínací	Svorka rychloupínací	WIELAND	91.250.009	3
Symbol ŠIPKA	Symbol ŠIPKA	MOELLER	91.062.002	2
Toroidní transformátor	1502304012015	ELEKTRO-KARBAN s.r.o.	91.080.026	1
Transformátor 400V/230V 0,13A 30VA	JOC E2520 - 022	ELEKTROKOV as. ZNOJMO	91.080.027	1
Ventilátor chlazení 230V, 50Hz, 0.12A	RAH127861-C	XFAN	91.015.105	1
Zdroj	Zdroj v3	BOMAR s.r.o.	265.912	1
Žárovka 24V, 20W	MR 16	Orbitec	93.017.107	1

6.4. Hydraulické schéma / Hydraulicschema / Hydraulic diagram



205.6416-000
EXTEND-1120
EXTEND-1320

Základní technické parametry
Technische Spezifikation
Technical specification

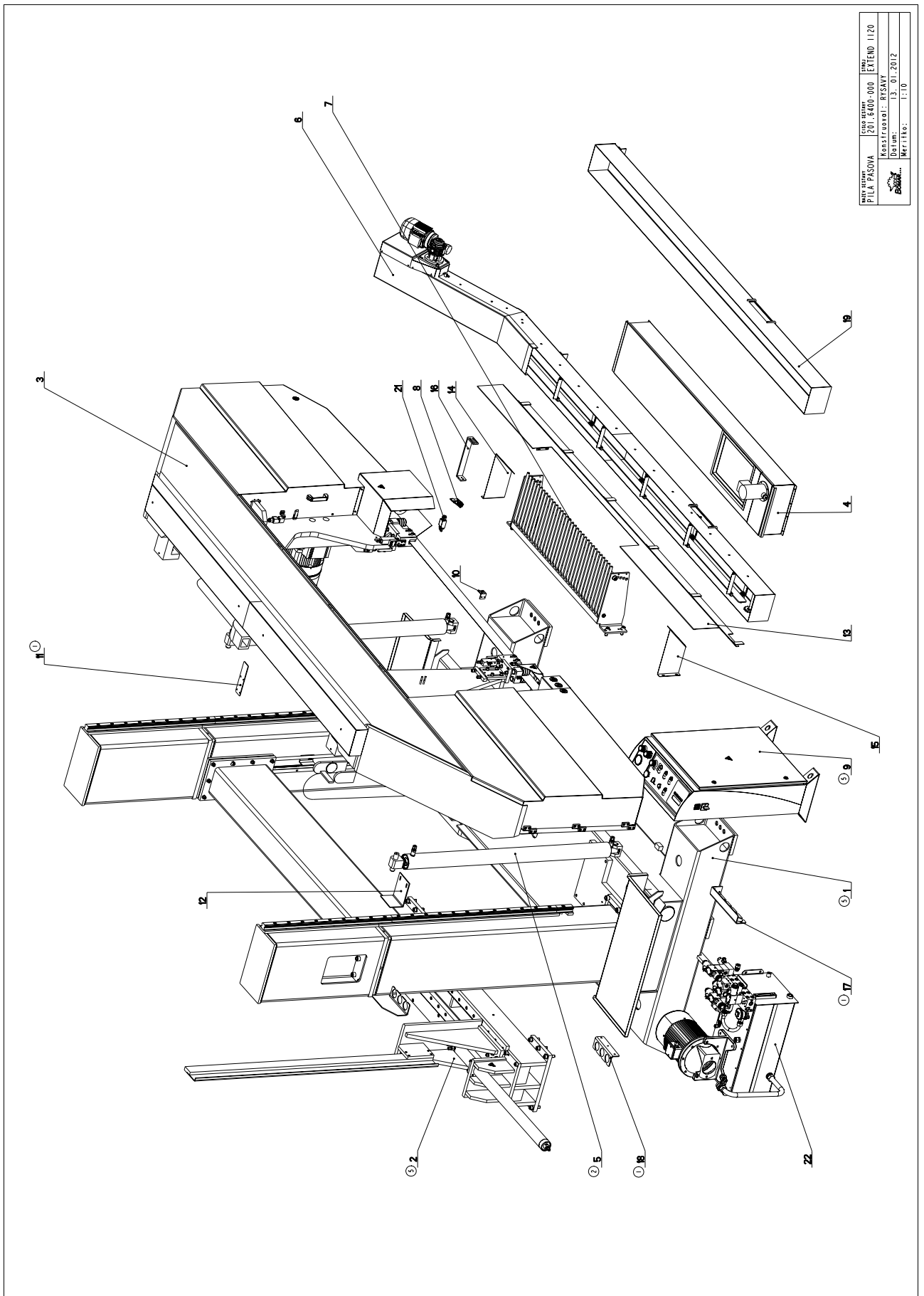
Typ / Type / Type	Extend 1120 / 1320
Hydraulický agregát / Hydroaggregat	871-1699
Hydro aggregat	92.001.049
Neuvedené světlosti / Unerwähnt Lichtbreite	JS6
Unlisted inside diameters	
Výstupní šroubení / Ausgangsschraubung	G1/4"
P_{max}	8,5 Mpa
Q	33 dm ³ /min
n	1440 rpm
P	5,5 kW

Poz.	Název položky		ks
Pos.	Bezeichnung		Menge
Pos.	Item		Pcs.
1	Nádrž / Behälter / Tank	N60-BO, 60 l 700x370x394 mm	1
2	Elektromotor / Elektromotor / Electromotor	MA-AL132L 400/230V 50 Hz, 5,5 kW	1
3	Hydrogenerátor / Hydraulikgenerator / Hydrogenerator	LRR 025C PC 7 MPa/33 dm ³	1
4	Jednosměrný ventil / Einwegventil / One-way valve	VJ03-10-005-G1	1
5	Přepouštěcí ventil / Bypassventil / By pass valve	VPP2-04/MP06-16	1
6	Zpětný filtr / Filter / Filter	E072-56+DG 200-10 12 um	1
7	Manometr / Manometer / Manometer	Ø68 0-10 MPa	1
8	Tlakový spínač / Druckschalter / Pressure switch	TS2-18-0 5+/-0,5 MPa	1
8	Rozváděč / Schaltschrank / Switchboard	SD2E-A3/H2D21	1
9		166411031043	1
10	Rozváděč / Schaltschrank / Switchboard	RPE3- 043Z11/02400E1K1	1
11	Blok rychloposuvu / Eilgangsblock / Speed shift block	729-0084	1
12	Hydraulický zámek / Hydraulisches Schloß / Hydraulic lock	VJR1-04/MA	1
13	Rozváděč / Schaltschrank / Switchboard	RPE3- 043Y11/02400E1K1	1
14	Škrťací ventil / Drosselventil / Throttle-valve	VS01-04/R2,5	1
15	Redukční ventil / Reduktionventil /	VRN2-06/S-6R	1
16	Redukční ventil / Reduktionventil /	VRN2-06/S-6R	1(0)
17	Kostka regulace / Regulationklotz /		2
18	Kulový ventil / Kugelventil / Globe valve		3(2)
19	Krycí deska / Schutzplatte / Cover platte	DK 1-04/32-2	1
20	Pojistný ventil / Sicherungventil / Safety valve	VPNH 1/4	2
21	Tlakový filtr / Druckfilter / Pressure filter	D 420153+V3,0510-03	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. practix Extend 1120.1120) , výrobní číslo (např. 125) a rok výroby (např. 1999).
- In die Bestellung der Ersatzteile führen Sie immer an: Maschinentyp (z. B. Extend 1120.1120), Serien Nr. (z. B. 125) und Baujahr (z. B. 1999).
- For spare parts order, you must always to allege: type of machine (for example Extend 1120.1120), serial number (for example 125, see cover page) and year of construction (for example 1999).

7.1. Extend 1120.1120 - 1



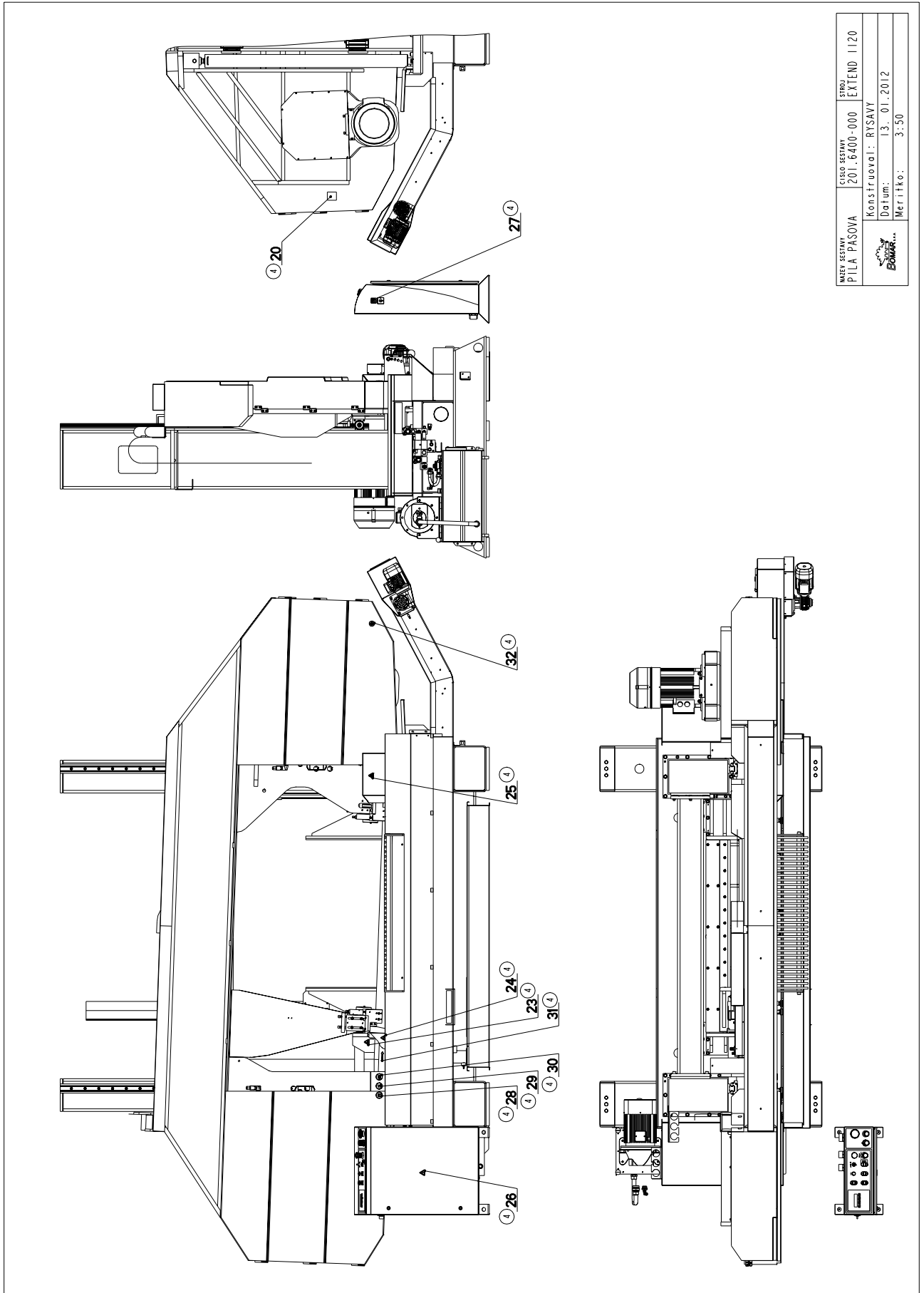
WYKŁADZ PŁA PASOWA	ČÍSLO KRESBY 201.6400-000	ŠKIC EXTEND 1120
	Konstruoval: RYSAVY	
	Datum: 13. 01. 2012	
	Meritko:	1:10

7.2. Kusovník / Stückliste / Piece list – Extend 1120.1120 - 1

Císlo Sestavy		Ver.		Název sestavy	
201.6400-000		5		PILA PASOVA/BAND SAW/BANDSÄGE	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6401-100 (5)	0	PODSTAVEC / BASE / UNTERSATZ		1
2	201.6403-250 (5)	0	SVERAK / VICE / SCHRAUBSTOCK		1
3	201.6404-000	1	RAMENO / SHOULDER / SÄGERAHMEN		1
4	201.6406-000	0	CHLAZENÍ / COOLING / KÜHLUNG		1
5	201.6407-500 (2)	0	VALEC ZVEDACÍ / LIFTING CYLINDER / HEBEZYLINDER		2
6	201.6417-000	1	VYNASEC TRISKOVY / CHIP EXTRACTOR / SPANABFÜHRUNG		1
7	201.6418-100	0	ROST / GRILL / GITTER		1
8	201.6702-200	2	SNIMAC / SENSOR / SENSOR		1
9	201.Y430-000 (5)	0	OVLADACÍ PANEL / CONTROL PANEL / BEDIENPULT		1
10	30.6101-111	0	DRŽAK / HOLDER / HALTER	PROFIL 40x40x4	1
11	30.6214-138 (1)	0	DRŽAK / HOLDER / HALTER	P 4x60	1
12	30.6414-005	0	DRŽAK / HOLDER / HALTER	P5x270x140	1
13	30.6414-015	0	KRYT / COVER / ABDECKUNG		1
14	30.6414-016	0	KRYT / COVER / ABDECKUNG	P 2x185	1
15	30.6414-017	0	KRYT / COVER / ABDECKUNG	P 2x185	1
16	30.6414-018	1	DRŽAK / HOLDER / HALTER		1
17	30.6414-019 (1)	0	DRŽAK / HOLDER / HALTER	P5x130	1
18	30.6414-020 (1)	0	DRŽAK / HOLDER / HALTER	P5x130	1
19	30.6414-080	0	KORYTO / CHANNEL / Rinne		1
20	31.6499-001 (4)	0	STÍTEK TYPOVY / MACHINE LABEL / MASCHINE SCHILD	P 0.5x65	1
21	91.173-009	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER		1
22	92.901-049	0	AGREGAT HYDRAULICKY / HYDRAULIC GENERATOR / HYDRAULIKAGREGAT	871-1699	1
23	99.900-039 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER	NEBEZP. STLACENI	1
24	99.900-040 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1
25	99.900-043 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1
26	99.900-045 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1
27	99.900-046 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1
28	99.900-047 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1
29	99.900-048 (4)	0	SAMOLEPKA / STICKER / AUFKLEBER		1

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

7.3. Extend 1120.1120 - 2



NAZEV VEŠTAVY PILA PASOVA	CÍSLO VEŠTAVY 201.6400-000	STROJ EXTEND 1120
Konstruoval: RYŠAVÝ		Datum: 13. 01. 2012
Meriřko:		3:50

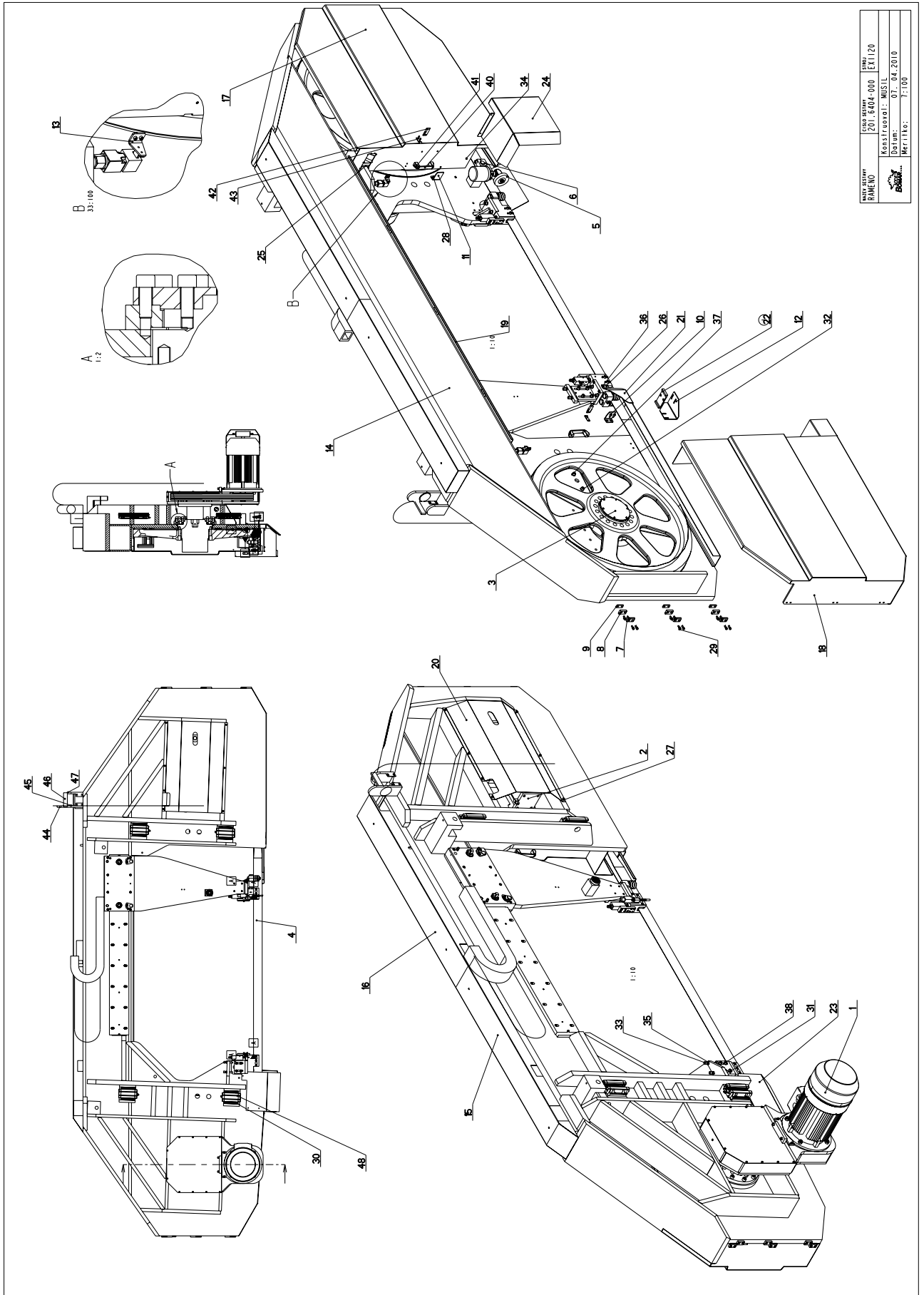
7.4. Kusovník / Stückliste / Piece list – Extend 1120.1120 - 2

30	99.900.049	(4)	0	SAMOLEPKA / STICKER / AUFKLEBER	I
31	99.900.053	(4)	0	SAMOLEPKA / STICKER / AUFKLEBER	I
32	99.901.032	(4)	0	SAMOLEPKA / STICKER / AUFKLEBER	CETIFIKACNI SAMOLEPKA I

1. ZRUS.DRZAK 30.6414-006 A NAHR.DRZAKEM 30.6214-138,PRIDANY DRZAKY ELEKTRO 30.6414-019,30.6414-020. I19/ZM119 21.4.2008 SLEZACKOVA
2. ZRUS.VALEC ZVEDACI 201.6407-300 A NAHRAZEN VALCEM 201.6407-500. 3777/ZM362 29.10.2008 SLEZACKOVA
3. ZRUSEN ROZVADEC 201.6230-100 A NAHR. ROZVADECEM 201.6430-000. 280/ZM023 20.1.2009 SLEZACKOVA
4. DOPLNENY BEZPECNOSTNI ZNACKY 99.900.047,99.900.048,99.900.049,99.900.040,99.900.045,99.900.043,99.900.053. 040/ZM092 6.4.2010 SLEZACKOVA
5. ZRUS.PODSTAVEC 201.6401-000 A NAHR.201.6401-100,ZRUS.SVERAK 201.6403-200 A NAHR.201.6403-250, ZRUS.ROZVADEC 201.6430-000 A NAHR.201.Y430-000. 293,002/ZM007 13.1.2012 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

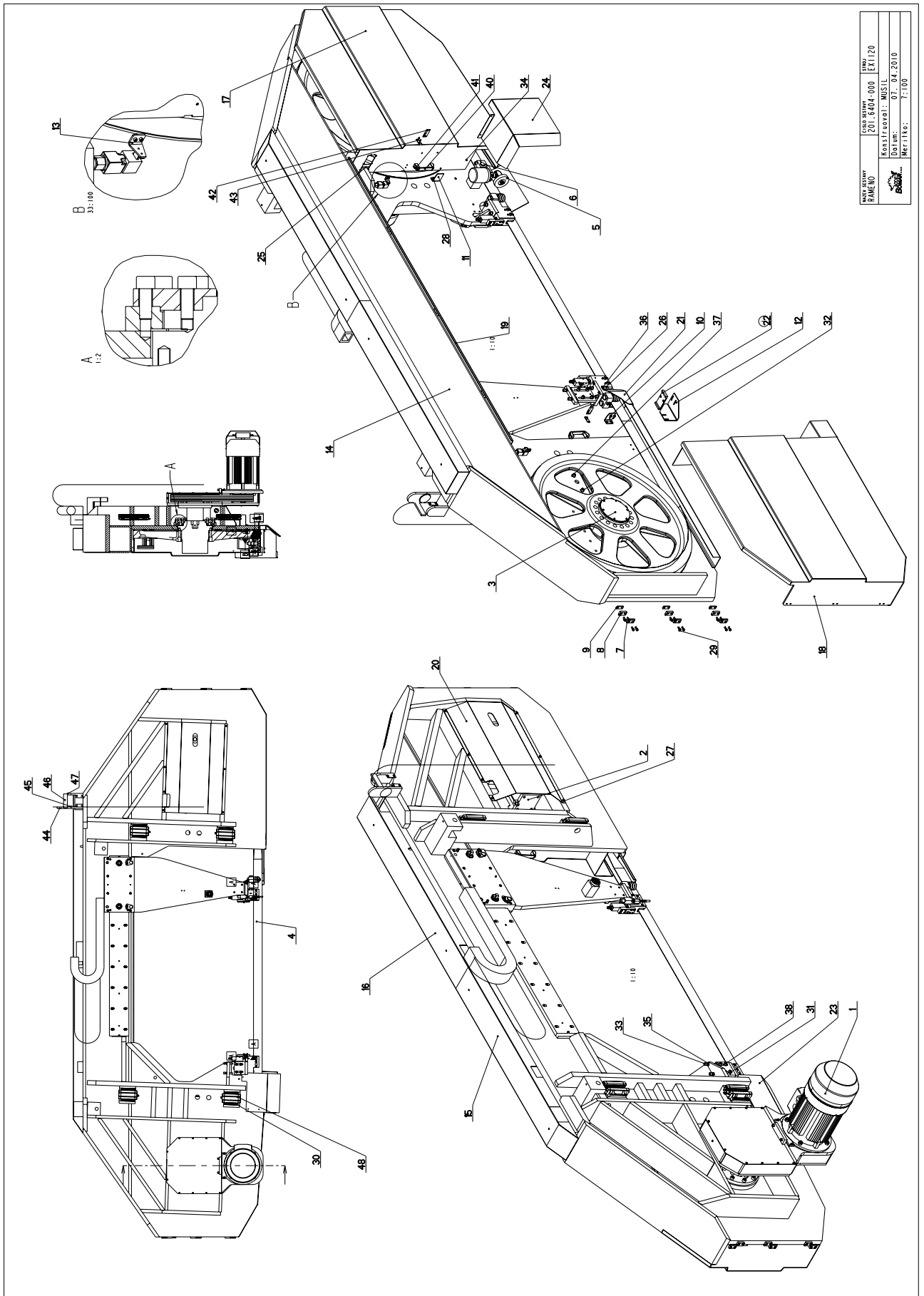
7.5. Rameno / Sägerahmen / Saw arm - 1



7.6. Kusovník / Stückliste / Piece list –
Rameno / Sägerahmen / Saw arm - 1

Cislo Sestavy 201.6404-000		Nozov sestavy RAMENO/SHOULDER/SÄGERAHMEN			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6405-000	1	POHON / DRIVE / ANTRIEB		1
2	201.6407-200	1	VALEC NAPINACÍ / TENSIONING CYLINDER / SPANNZYLINDER		1
3	201.6408-000	1	NAPINÁNÍ / TENSIONING / SPANNUNG		1
4	201.6410-000	1	VEDENÍ PASU / BELT GUIDE / SÄGEBANDFÜHRUNG		1
5	201.C214-050	0	KARTAC / BRUSH / BÜRSTE		1
6	201.C214-220	0	DRŽAK / HOLDER / HALTER		1
7	30.6014-109	1	PANT / HINGE / TÜRBAND		6
8	30.6014-110	1	PANT / HINGE / TÜRBAND	HR 30x12	6
9	30.6014-111	0	DESKA / BOARD / PLATTE	HR 20x6	6
10	30.6114-123	0	DRŽAK / HOLDER / HALTER	P 4 - 55	1
11	30.6114-124	1	DRŽAK / HOLDER / HALTER	P 4 - 55	1
12	30.6114-146	2	DRŽAK / HOLDER / HALTER	P3-150x199	1
13	30.6114-147	0	DRŽAK / HOLDER / HALTER	P 3x30x60	2
14	30.6404-001	2	RAMENO / SHOULDER / SÄGERAHMEN		1
15	30.6414-012	0	KRYTÍ RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
16	30.6414-013	0	KRYTÍ RAMENE / SHOULDER COVER / RAHMENABDECKUNG		1
17	30.6414-101	1	DVERE / DOOR / TÜR		1
18	30.6414-102	1	DVERE / DOOR / TÜR		1
19	30.6414-103	0	KRYTÍ PASU / BELT COVER / BANDABDECKUNG		1
20	30.6414-105	0	KRYTÍ NAPINÁNÍ / TENSIONING COVER / BANDSPANNUNGSABDECKUNG	P 2-620	1
21	30.6414-106	0	KRYTÍ PASU / BELT COVER / BANDABDECKUNG		1
22	30.6414-145	0	KLUZAK / GLIDER / GLEITER	TYC 60x15	1
23	30.6414-152	1	KRYTÍ KARTACKU / BRUSH COVER / BÜRSTENABDECKUNG	P2x360	1
24	30.6414-153	0	KRYTÍ KARTACKU / BRUSH COVER / BÜRSTENABDECKUNG	P 2x639	1
25	49.250.010	0	KARTAC / BRUSH / BÜRSTE		3
26	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	2
27	90.001.25.028	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X10	7
28	90.001.25.031	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x16	4
29	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	24
30	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X30	16
31	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	4
32	90.001.25.062	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X50	4
33	90.001.25.064	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X70	2
34	90.001.55.086	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M4X6	12
35	90.100.55.007	0	MATICE / NUT / MUTTER	MATICE - M12	2
36	90.150.50.004	0	PODLOŽKA / WASHER / UNTERLEGSCHIBE	PODLOŽKA 6.4	2

7.7. Rameno / Sägerahmen / Saw arm - 2

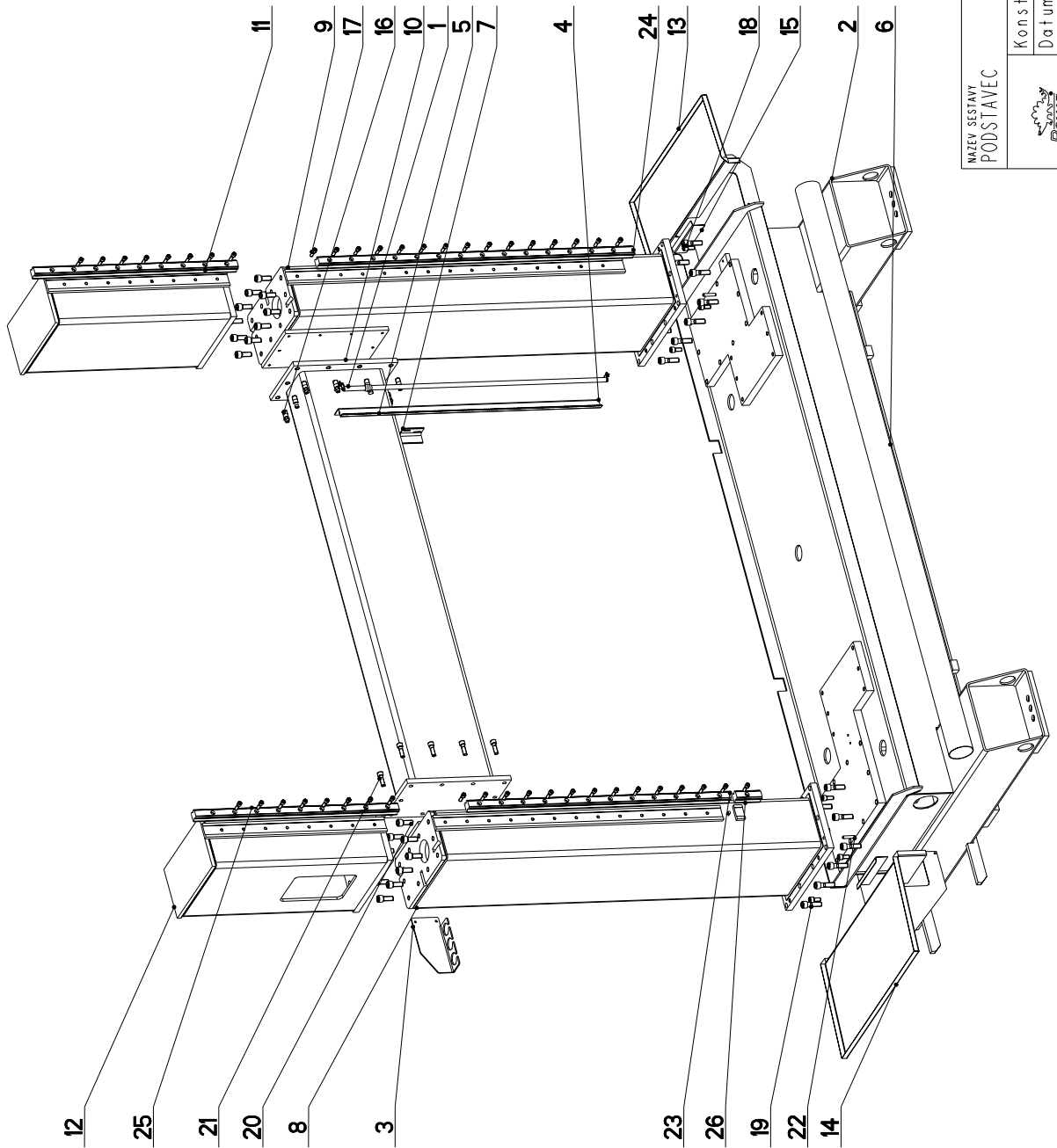



7.8. Kusovník / Stückliste / Piece list –
Rameno / Sägerahmen / Saw arm - 2

37	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	PODLOZKA 13	4
38	90.163.00.003	0	PODLOZKA / WASHER / UNTERLEGSCHEIBE	NORD-LOCK	4
39	91.173.012	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	OKS8-2xHC	2
40	94.012.001	0	RUKOJET / HANDLE / GRIFF		2
41	94.012.002	0	KRYT / COVER / ABDECKUNG		4
42	99.100.003	0	ZAMEK / LOCK / SCHLOSS		2
43	99.100.004	0	ZAMEK / LOCK / SCHLOSS	D13-00	2
44	99.170.022	0	RETEZ ENERGI1 / ENERGY BELT / ENERGIEKETTE		1
45	99.170.023	0	RETEZ ENERGI1 / ENERGY BELT / ENERGIEKETTE		1
46	99.170.024	0	RETEZ ENERGI1 / ENERGY BELT / ENERGIEKETTE		1
47	99.171.030	0	KONCOVKA / END / ENDSTÜCK		1
48	99.201.013	0	VOZIK LINEARNIHO VEDENI / LINEAR GUIDE CART / LINEARFÜHRUNGSWAGEN	99.201.013	4

I. ZRUSENA SOUC. 30.6114-145 A NAHR. 30.6414-145. 300/ZM285 8.9.2008 SLEZACKOVA

7.9. Podstavec / Untersatz / Base



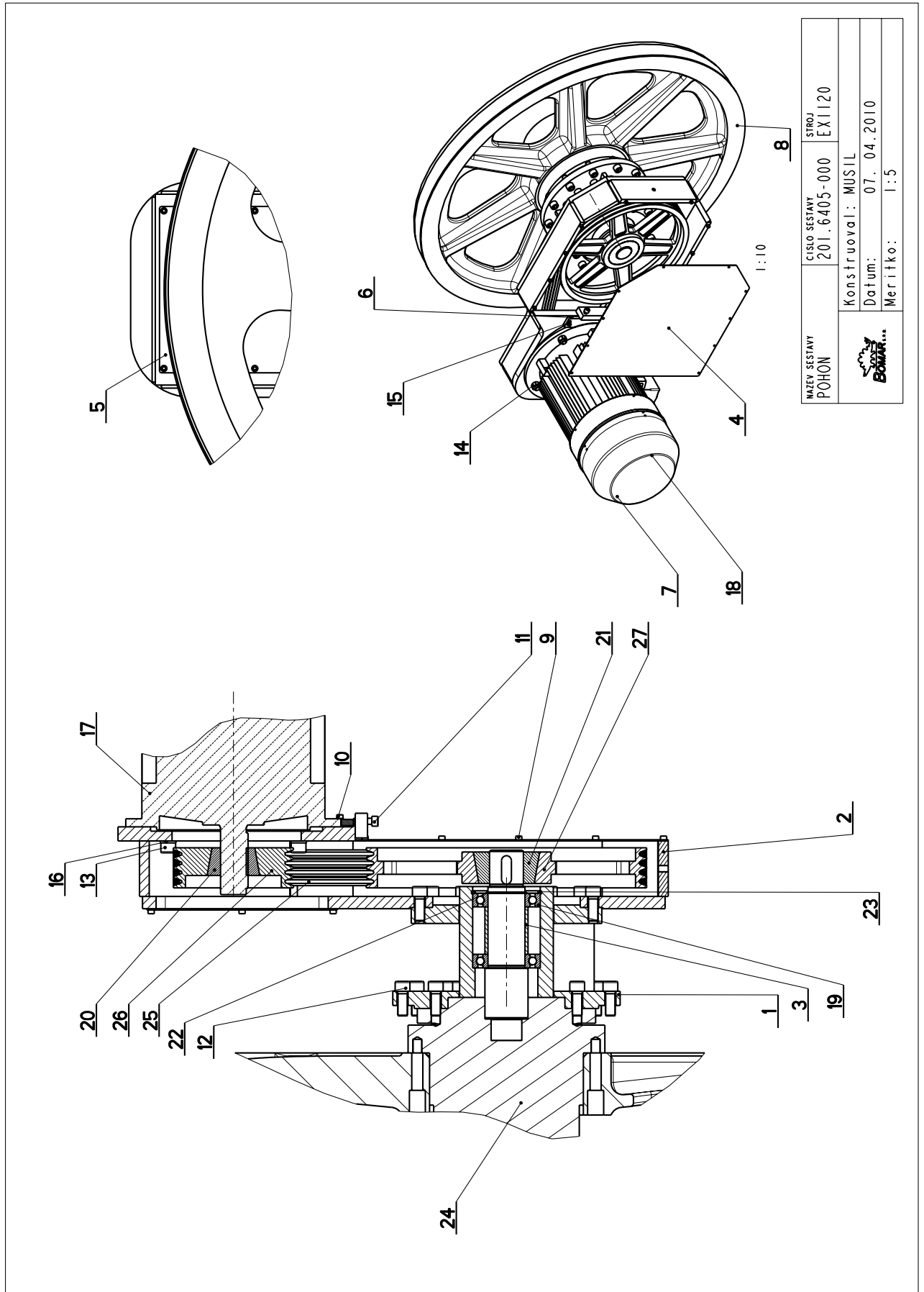
NÁZEV SESTAVY PODSTAVEC	CÍSLO SESTAVY 201.6401-100	STROJ EX1120
		
Konstruoval: RYSAVY		
Datum: 05. 12. 2011		
Meritko: 3:50		

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

Císlo Sestavy 201.6401-100		Ver. 0		Název sestavy PODSTAVEC/BASE/UNTERSATZ	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6414-030	0	ODMEROVANI / MEASURING / GEHRUNGSMESSUNG		1
2	30.6401-001	1	PODSTAVEC / BASE / UNTERSATZ		1
3	30.6401-006	0	DRZAK / HOLDER / HALTER	P5x206	1
4	30.6401-008	0	HREBEN / COMB / KAMM	P 3x109x1250	1
5	30.6401-009	0	SROUB / BOLT / SCHRAUBE	6HR-22	10
6	30.6401-012	0	TRUBKA / TUBE / ROHR	TR 110x2.5	1
7	30.6401-015	0	DORAZ / STOP PIECE / ANSCHLAG	PROFIL 50x50x4	1
8	30.6401-025	0	SLOUP / POLE / SAULE		1
9	30.6401-026	1	SLOUP / POLE / SAULE		1
10	30.6401-027	1	VZPERA / PROP / STREBE		1
11	30.6401-102	0	SLOUP / POLE / SAULE		1
12	30.6401-103	0	SLOUP / POLE / SAULE		1
13	30.6414-010	0	OKAP / GUTTER CHANNEL / BLECH		1
14	30.6414-011	0	OKAP / GUTTER CHANNEL / BLECH		1
15	31.6114-129	0	DESKA / BOARD / PLATTE	2x81	2
16	90.001.25.050	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X40	10
17	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X40	45
18	90.001.25.075	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X35	8
19	90.001.25.129	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M20X70	20
20	90.001.25.137	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M20X50	20
21	90.001.25.138	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X50	10
22	90.300.07.020	0	KOLIK VALC. KAL. / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLIK 12X60	4
23	99.200.245	0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	HGR R45 L=1260; E=52,5	1
24	99.200.246	0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	HGR R45 L=1517; E=52,5	1
25	99.200.247	0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	HGR R45 L=978; E=52,5	2
26	99.200.248	0	VEDENI LINEARNI / LINEAR GUIDE / LINEARE FÜHRUNG	HGR R45 L=122; E=52,5	1

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

7.11. Pohon / Antrieb / Drive

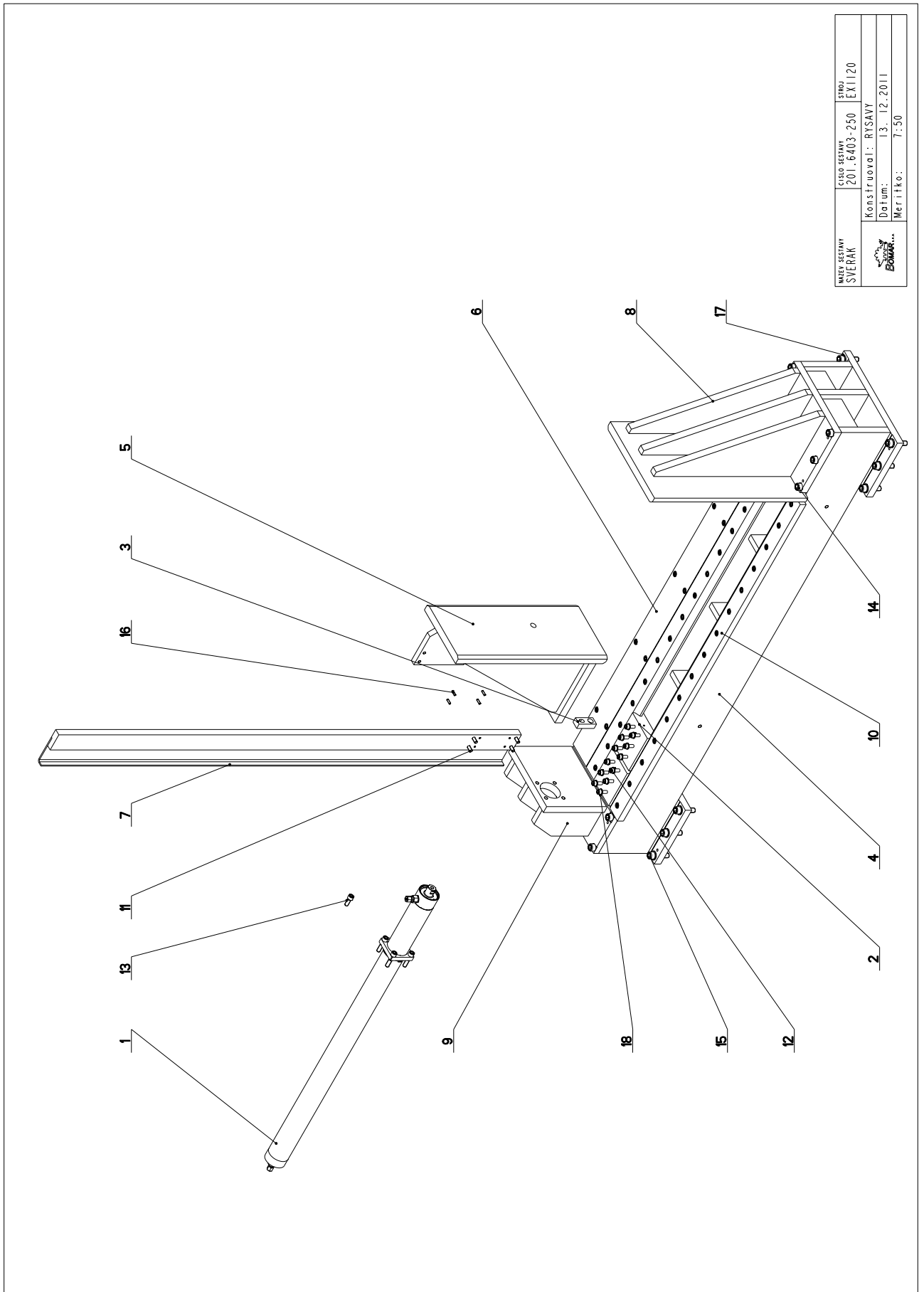


7.12. Kusovník / Stückliste / Piece list –
Pohon / Antrieb / Drive

Císlo Sestavy 201.6405-000		Ver. 1		Název sestavy POHON/DRIVE / ANTRIEB	
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6405-020	0	PRÍRUBA / FLANGE / FLANSCH		1
2	30.6405-022	1	SKRIN / BOX / KASTEN		1
3	30.6405-023	0	TRUBKA / TUBE / ROHR	TR 70x5	1
4	30.6405-024	0	KRYT / COVER / ABDECKUNG	P2-508	1
5	30.6405-025	0	KRYT / COVER / ABDECKUNG	P2-263	1
6	30.6405-027	0	DESKA / BOARD / PLATTE	P10-40	1
7	30.6405-030	0	VENTILATOR / VENTILATOR / VENTILATOR		1
8	30.6405-035	0	KOLO HMACI / DRIVE WHEEL / ANTRIEBSRAD		1
9	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	16
10	90.001.25.018	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X20	2
11	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X30	2
12	90.001.25.086	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X40	36
13	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X60	4
14	90.100.55.008	0	MATICE / NUT / MUTTER	MATICE - M16	4
15	90.150.50.004	0	PODLOZKA / WASHER / UNTERLEGSCHLEIBE	PODLOZKA 6.4	2
16	90.163.00.005	0	PODLOZKA / WASHER / UNTERLEGSCHLEIBE	NORDLOCK 16	4
17	91.001.066	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR		1
18	91.015.100	0	VENTILATOR / VENTILATOR / VENTILATOR		1
19	95.001.031	0	LOZISKO / BEARING / LAGER	6212A	2
20	95.710.008	0	POUZDRO / SLEEVE / BÜCHSE		1
21	95.710.013	0	POUZDRO UPINACI / FIXING SLEEVE / SPANNHÜLSE	TB 3020-55	1
22	95.800.020	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUßEN	POJISTINY KROUZEK 60	1
23	95.801.022	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTINY KROUZEK 110	1
24	99.004.002	0	PREVODOVKA PLANETOVA / PLANETARY TRANSMISSION / PLANETENGETRIEBE	PREVODOVKA S HRIDELI G-RED	1
25	99.021.037	0	REMEN KLINOVY / V BELT / KEILRIEMEN	REMEN SPA-1932	4
26	99.280.055	0	REMENICE / PULLEY / RIEMENSCHLEIBE	SPA 0190-04 2517 IPL	1
27	99.280.070	0	REMENICE / PULLEY / RIEMENSCHLEIBE	SPA 0450-04 3020	1

1. ZRUSENO HRIDEL 30.6405-036 A HRIDEL 30.6405-021 (OBE HRIDELE JSOU DODANY S PREVODOVKOU). 242/ZM240 17.7.2008 SLEZACKOVA

7.13. Svěrák / Schraubstock / Vice



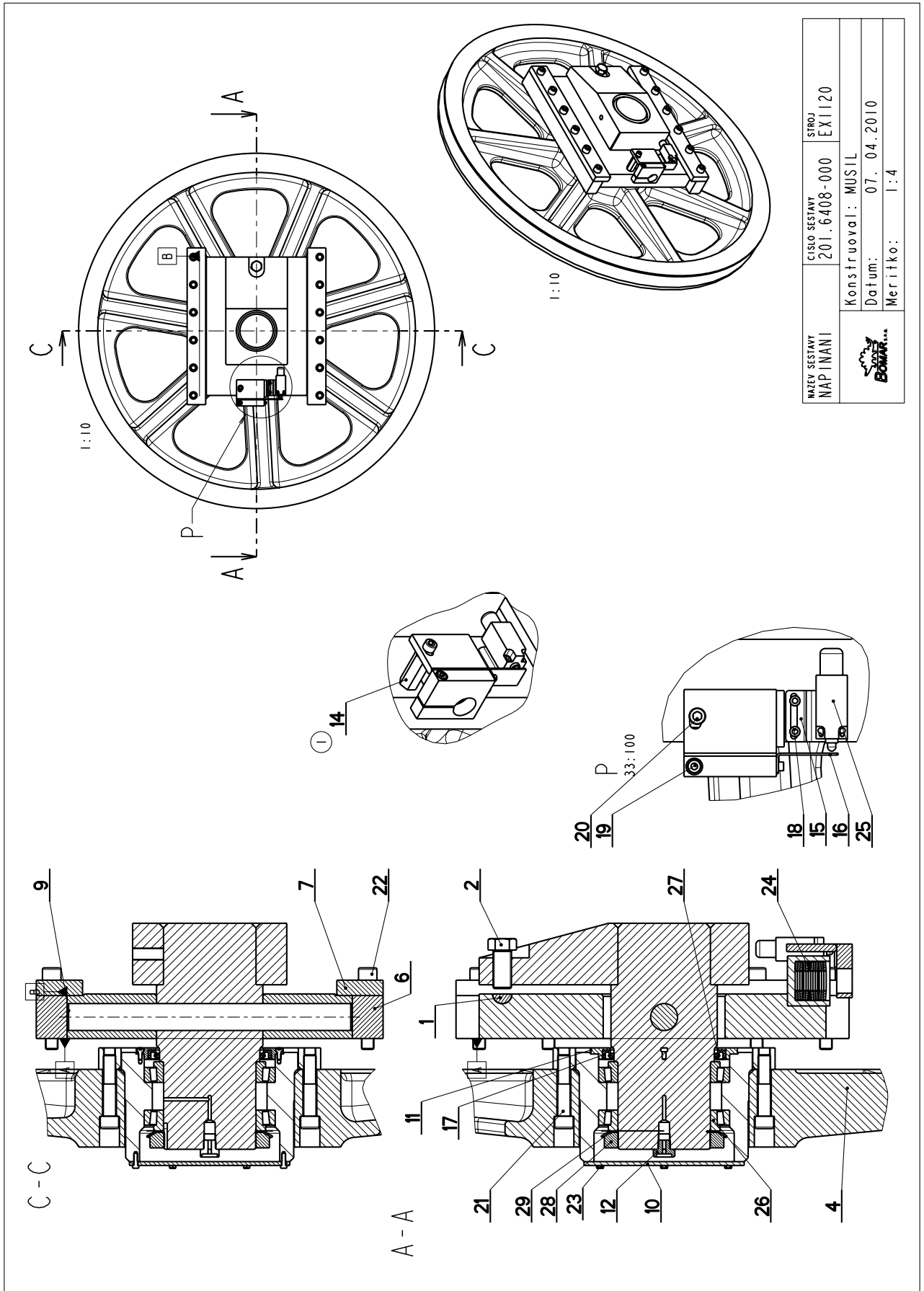
NAZEV SESTAVY SVĚRÁK	ČÍSLO SESTAVY 201.6403-250	STROJ EX1120
Konstruoval: RYŠAVÝ		Datum: 13. 12. 2011
Meritko: 1:50		

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

Císlo Sestavy 201.6403-250		Ver. 0		Název sestavy SVĚRÁK/VÍCE /SCHRAUBSTOCK	
Poz.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6407-000	0	VALEC SVĚRAKU / VICE CYLINDER / SCHRAUBSTOCKZYLINDER		1
2	30.6003-552	0	KLUZÁK / GLIDER / GLEITER	HR 130x50	2
3	30.6103-005	0	DRZÁK / HOLDER / HALTER	HR 30x20	1
4	30.6403-002	2	PODSTAVEC SVĚRAKU / VICE BASE / SCHRAUBSTOCKUNTERSATZ		1
5	30.6403-004	1	CELIST POKRYBLIVA / MOVING JAW / BEWEGLICHE BACKE		1
6	30.6403-007	0	LISTA / TRIM / LEISTE	HR 110x25	1
7	30.6403-008	0	LISTA / TRIM / LEISTE		1
8	30.6403-101	0	CELIST / JAW / BACKE		1
9	30.6403-106	0	KONZOLA / CONSOLE / KONSOLE		1
10	30.6403-251	0	LISTA SVĚRAKU / VICE TRIM / SCHRAUBSTOCKLEISTE	HR 82x27	2
11	90.001.25.049	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X35	44
12	90.001.25.054	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X60	12
13	90.001.25.058	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12X30	1
14	90.001.25.086	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X40	10
15	90.001.25.092	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X60	12
16	90.002.2D.021	0	ŠROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	ŠROUB M6X20	4
17	90.150.00.013	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 16	12
18	90.150.50.006	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	PODLOŽKA 10,5	12

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

7.15. Napínání / Spannung / Tensioning

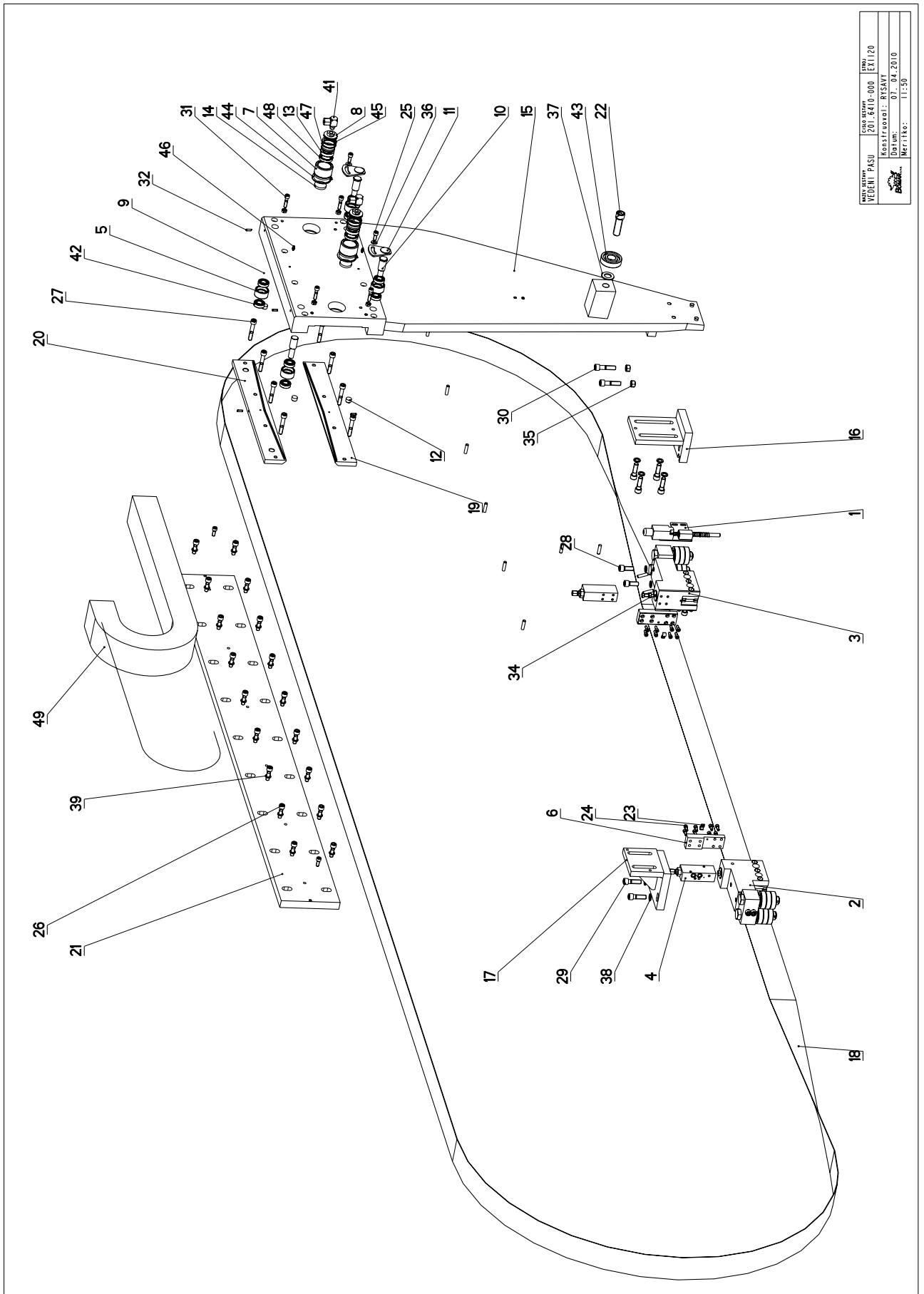


7.16. Kusovník / Stückliste / Piece list –
Napínání / Spannung / Tensioning

Císlo Sestavy 201.6408-000		Název sestavy NAPINANI/TENSIONING/SPANNUNG			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.6208-003	0	CEP / LUG / BOLZEN	d 25	1
2	30.6208-004	0	SROUB / BOLT / SCHRAUBE	TYC 32	1
3	30.6208-104	0	TRMEN / BINDER / BÜGEL		1
4	30.6405-007	0	KOLO HNACI / DRIVE WHEEL / ANTRIEBSRAD		1
5	30.6408-002	1	DESKA / BOARD / PLATTE		1
6	30.6408-003	0	LISTA / TRIM / LEISTE	TYC 60x40	2
7	30.6408-004	0	LISTA / TRIM / LEISTE	TYC 60x20	2
8	30.6408-005	0	NAPINANI / TENSIONING / SPANNUNG		1
9	30.6408-007	0	CEP NAPINANI / TENSIONING LUG / SPANNUNGSBOLZEN	d 35 h6	1
10	30.6408-008	0	VIKO / COVER / DECKEL	P5-208	1
11	30.6408-009	0	VIKO / COVER / DECKEL	P15-190	1
12	30.6408-010	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M16x25 ZN	1
13	30.6408-011	0	PRIHRUBA / FLANGE / FLANSCH		1
14	30.6408-025 (1)	0	DORAZ / STOP PIECE / ANSCHLAG	TYC 6HR 22	1
15	30.6708-303	0	DRZAK / HOLDER / HALTER	P 3x50x95	1
16	30.6708-304	0	DORAZ / STOP PIECE / ANSCHLAG	P 2x20x76	1
17	90.001.25.007	0	SROUB IMBUS CERNENY / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5X10	8
18	90.001.25.015	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6X10	2
19	90.001.25.040	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8X60	1
20	90.001.25.048	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10X30	1
21	90.001.25.098	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X80	16
22	90.001.25.101	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16X90	12
23	90.005.55.003	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M5X16	6
24	90.350.02.004	0	TAL.PRUZINA DIN 2093 A / DISC SPRING / TELLERFEDER	50X25.4X3	12
25	91.173.007	0	SPINAC KONCOVY / END SWITCH / ENDSCHALTER	-RIWK	1
26	95.501.002	0	LOZISKO / BEARING / LAGER	KUZELIKOVE T4CB120	2
27	95.830.041	0	GUFERO / GIT SEAL / DICHTUNG	GUFERO 130X160X12	1
28	95.850.014	0	MATICE KM / KM NUT / KM-MUTTER	MATICE KM24	1
29	95.855.014	0	PODLOZKA / WASHER / UNTERLEGSCHIEBE	POJISTNA PODLOZKA MB24	1

I.ZRUS.DORAZOVY SROUB 30.6208-103 A NAHRAZEN 30.6408-025. 123/ZM122 21.4.2008 SLEZACKOVA

7.17. Vedení pásu / Sägebandführung / Belt guide - 1

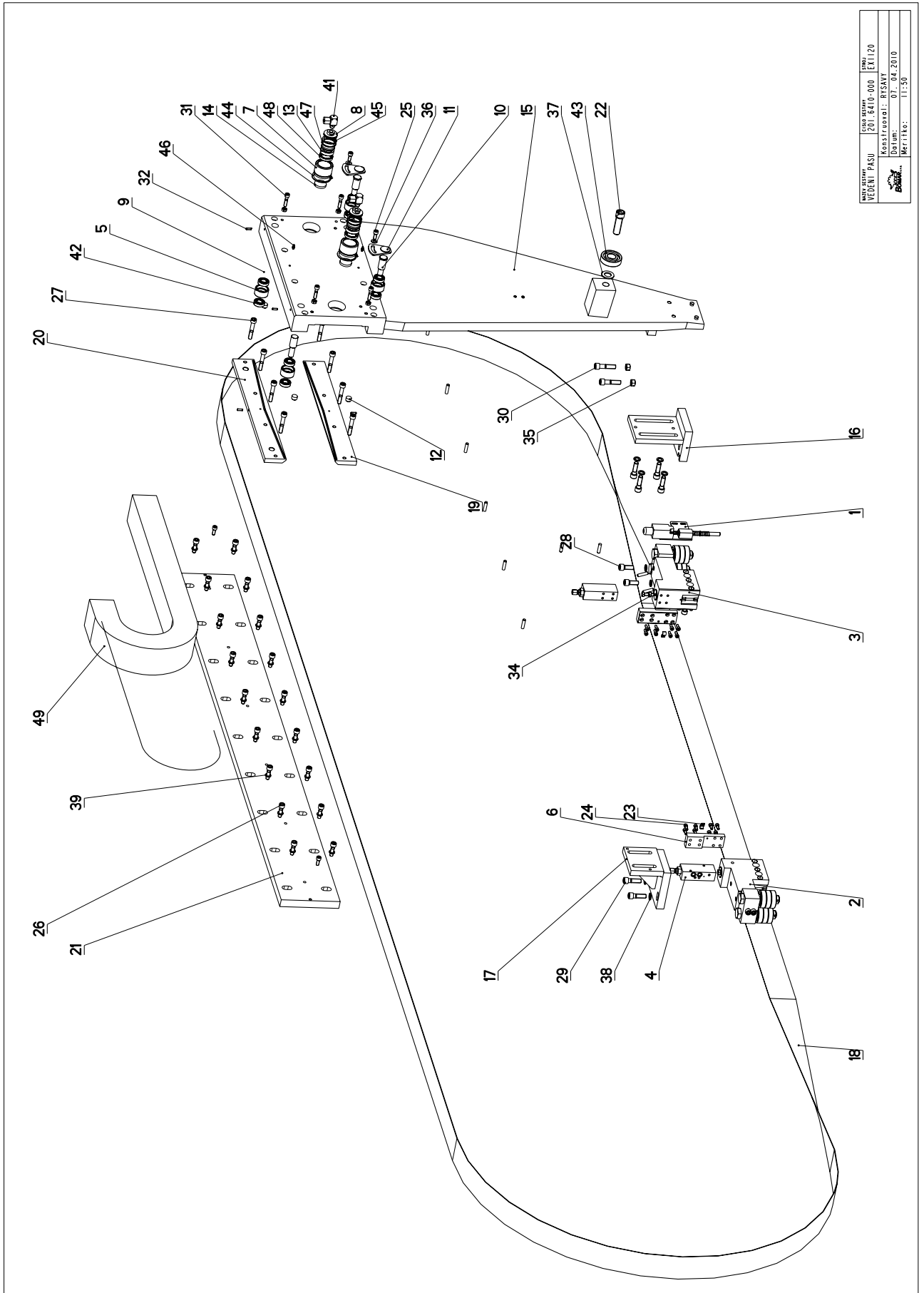


MODEL: VEDENÍ PÁSU	ČÍSLO KRESBY: 201.6410-000	STAV: EX1120
	Konstruktor: RYSÁVY	
	Datum: 07. 04. 2010	
	Verze: 01	11:30

7.18. Kusovník / Stückliste / Piece list –
Vedení pásu / Sägebandführung / Belt guide - 1

Císlo Sestavy 201.6410-000		Ver. 1	Název sestavy VEDENÍ PASU/BELT GUIDE / SÄGEBANDFÜHRUNG		
Pož.	Objednávací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6110-020	1	DORAZ / STOP PIECE / ANSCHLAG		1
2	201.6410-050	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
3	201.6410-060	1	KOSTKA VODICI / LEAD CUBE / FÜHRUNGSKLOTZ		1
4	201.6816-100	0	KOSTKA REGULACE / REGULATION CUBE / REGULINGSWÜRFEL		2
5	30.1503-006	0	KLADKA / PULLEY / ROLLE	d 45	4
6	30.6016-002	0	DESKA / BOARD / PLATTE	HR 40x20	2
7	30.6210-053	0	TRUBKA / TUBE / ROHR	TR 52/40	2
8	30.6210-054	0	VÍKO / COVER / DECKEL	TYC KR TAZ 42	2
9	30.6210-056	0	CEP / LUG / BOLZEN	TYC 22	2
10	30.6210-057	0	CEP / LUG / BOLZEN	TYC 6HR	2
11	30.6210-058	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE		2
12	30.6210-062	0	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	TYC 16	4
13	30.6210-063	0	PIST / PISTON / KOLBEN	D 40	2
14	30.6210-064	1	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	TYC d 36	2
15	30.6410-001	0	DRZAK / HOLDER / HALTER		1
16	30.6410-002	0	DRZAK / HOLDER / HALTER		1
17	30.6410-003	0	DRZAK / HOLDER / HALTER		1
18	30.6410-004	0	PAS PÍLOVÝ / SAW BELT / SÄGEBAND	PÁS 67x1,6	1
19	30.6410-005	1	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	TYC PL T 65x15	1
20	30.6410-006	1	LISTA VODICI / LEAD TRIM / FÜHRUNGSLEISTE	TYC PL T 65x15	1
21	30.6410-007	1	LISTA / TRIM / LEISTE	HR 180x25	1
22	30.6410-009	0	SROUB / BOLT / SCHRAUBE	SROUB 20x60	1
23	30.9010-003	0	DRZAK / HOLDER / HALTER	PI.5x10	2
24	90.001.25.017	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x16	16
25	90.001.25.032	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	8x20	4
26	90.001.25.049	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x35	18
27	90.001.25.054	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x60	8
28	90.001.25.058	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x30	2
29	90.001.25.060	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x40	6
30	90.001.25.062	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M12x50	2
31	90.001.55.035	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M8x35	4
32	90.002.20.007	0	SROUB STAVECI / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M5x16	4

7.19. Vedení pásu / Sägebandführung / Belt guide - 2

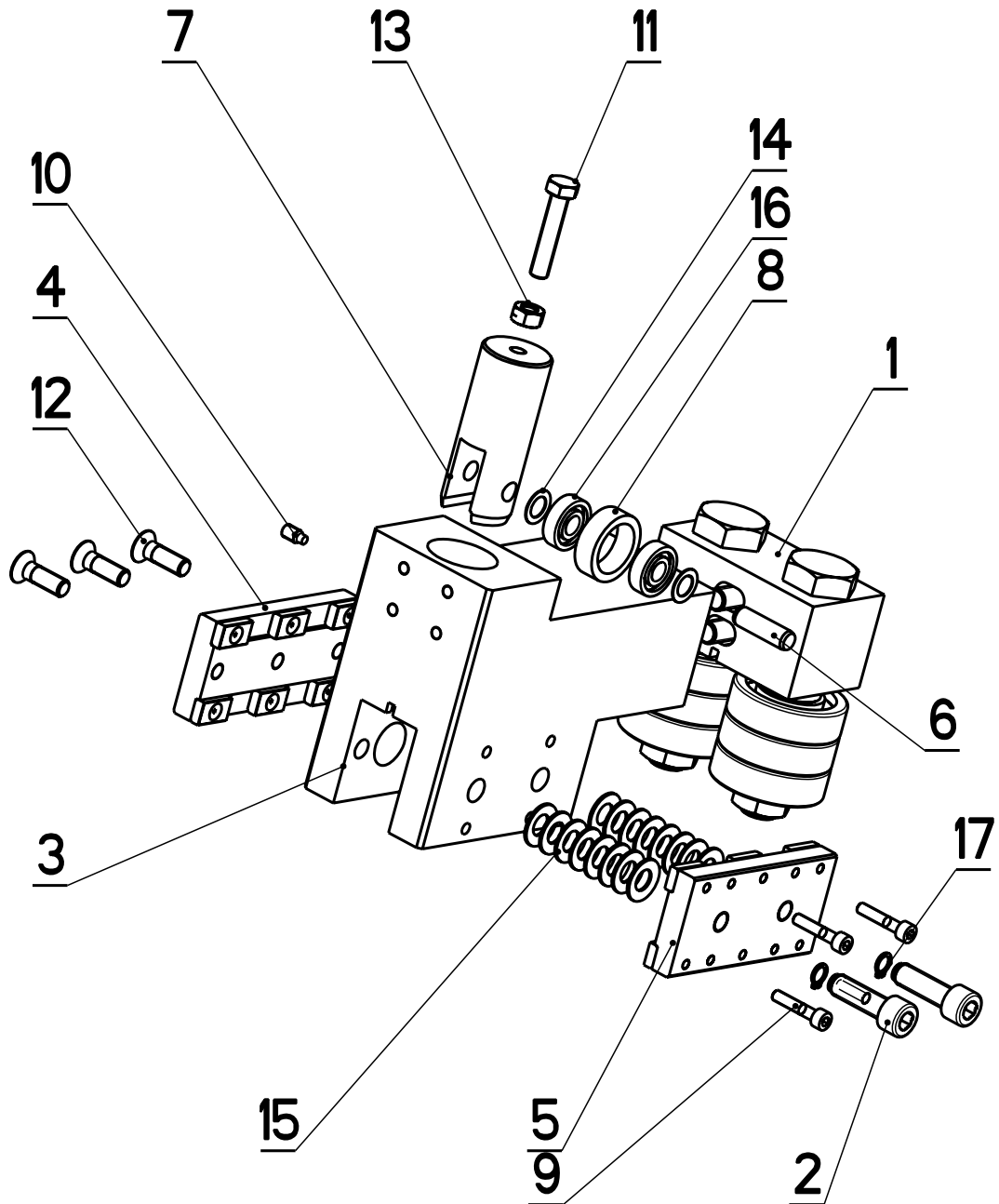



MODEL: VEDENÍ PÁSU	ČÍSLO KRESBY: 201.6410-006	STAV: EX1120
	Konstruktor: RYSÁVY	
	Datum: 07. 04. 2010	
	Verze: 01	11:50

7.20. Kusovník / Stückliste / Piece list –
Vedení pásu / Sägebandführung / Belt guide - 2

33	90.005.55.017	0	SROUB 6HRANNY / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M8x30	2
34	90.100.55.005	0	MATICE / NUT / MUTTER	MATICE - M8	5
35	90.100.55.007	0	MATICE / NUT / MUTTER	MATICE - M12	2
36	90.150.50.005	0	PODLOZKA / WASHER / UNTERLEGSCHIEBE	PODLOZKA 8,4	2
37	90.150.50.011	0	PODLOZKA / WASHER / UNTERLEGSCHIEBE	PODLOZKA 21	1
38	90.163.00.003	0	PODLOZKA / WASHER / UNTERLEGSCHIEBE	NORD-LOCK	8
39	90.163.00.004	0	PODLOZKA / WASHER / UNTERLEGSCHIEBE	NORD-LOCK	18
40	90.300.07.010	0	KOLIK VALCOVY KALENY / CYLINDRICAL PIN TEMPERED / ZYLINDERSTIFT GEHÄRTET	KOLIK 8x32	10
41	92.003.001	0	SROUBENI UHLOVE / ANGLE BOLTING / WINKELVERSCHRAUBUNG	P-RSWS-08LR	2
42	95.001.006	0	LOZISKO / BEARING / LAGER	6002 ZRS	8
43	95.001.036	0	LOZISKO / BEARING / LAGER	6305A	1
44	95.800.019	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTNY KROUZEK 52	2
45	95.801.005	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTNY KROUZEK 40	2
46	95.860.001	0	HLAVICE MAZACI / HEAD / KOPF	MM5	2
47	96.001.010	0	KROUZEK O STATICKY / STATIC O RING / O-RING STATISCH	36x2	2
48	96.042.001	0	TESNENI / SEALING / DICHTUNG	40x30x8 K606	2
49	99.170.021	0	RETEZ ENERGI / ENERGY BELT / ENERGIEKETTE	.	1

7.21. Vodící kostka / Führungsklotz / Guiding cube - 1

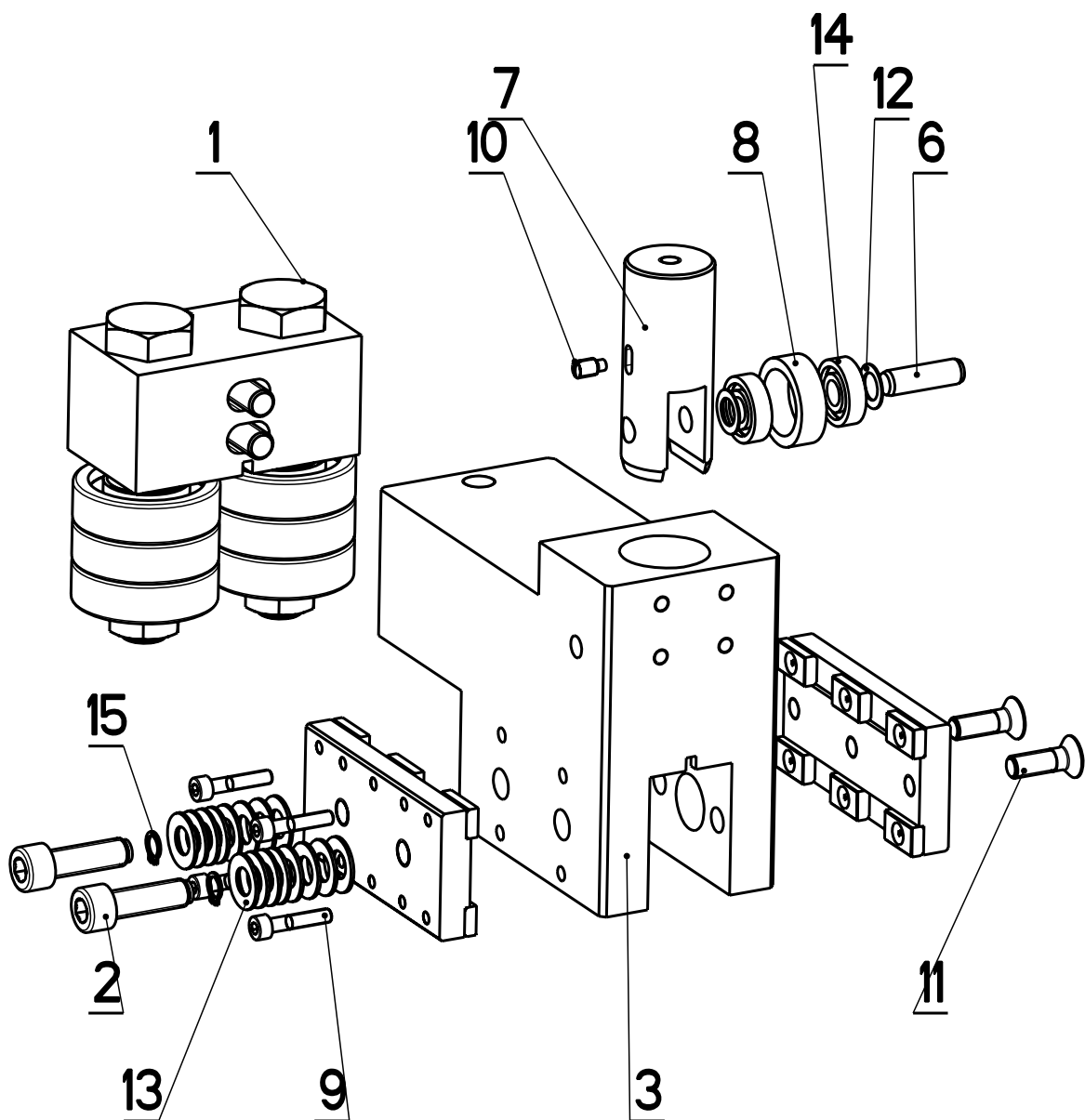


NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.6410-050	STROJ EX1120
	Konstruoval: RYSAVY	
	Datum: 08. 01.2010	
	Meritko: 2:5	

7.22. Kusovník / Stückliste / Piece list –
Vodící kostka / Führungsklotz / Guiding cube - 1

Císlo Sestavy 201.6410-050		Ver. 1	Název sestavy KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ		
Poz.	Objednáací číslo	Ver.	Název položky	Rozměr	Ks
1	201.5910-320	0	VEDENÍ / GUIDE / BACKENFÜHRUNG		1
2	30.6210-107	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x35	2
3	30.6410-051	0	KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ	TYC 130 x 80	1
4	30.6410-100	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		1
5	30.6410-200	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		1
6	30.6710-108	1	KOLÍK / PIN / BOLZEN	TYC 10	1
7	30.6710-109	0	PIST / PISTON / KOLBEN	d 32	1
8	30.6710-110	1	KROUZEK / RING / RING	LH 2403210	1
9	90.001.25.011	0	ŠROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x25	4
10	90.004.2D.002	0	ŠROUB STAVEC / ADJUSTMENT BOLT / STELLSCHRAUBE	ŠROUB M6x12	1
11	90.005.55.019	0	6 HR ŠROUB ZIN / 6 SIDED BOLT / SECHSKANTSCHRAUBE	ŠROUB M8x40	1
12	90.011.27.016	0	ŠROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	ŠROUB M8x25	3
13	90.100.55.005	0	MATICE DIN 934 / NUT / MUTTER	MATICE - M8	1
14	90.154.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	10x16x0.50	2
15	90.350.0Z.005	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	20x10.2x1	16
16	95.001.044	0	LOŽISKO KUL / RADE / BEARING / LAGER	609 2RS	2
17	95.800.002	0	KROUZEK POJIST. VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTNY KROUZEK 8	2

7.23. Vodící kostka / Führungsklotz / Guiding cube - 2

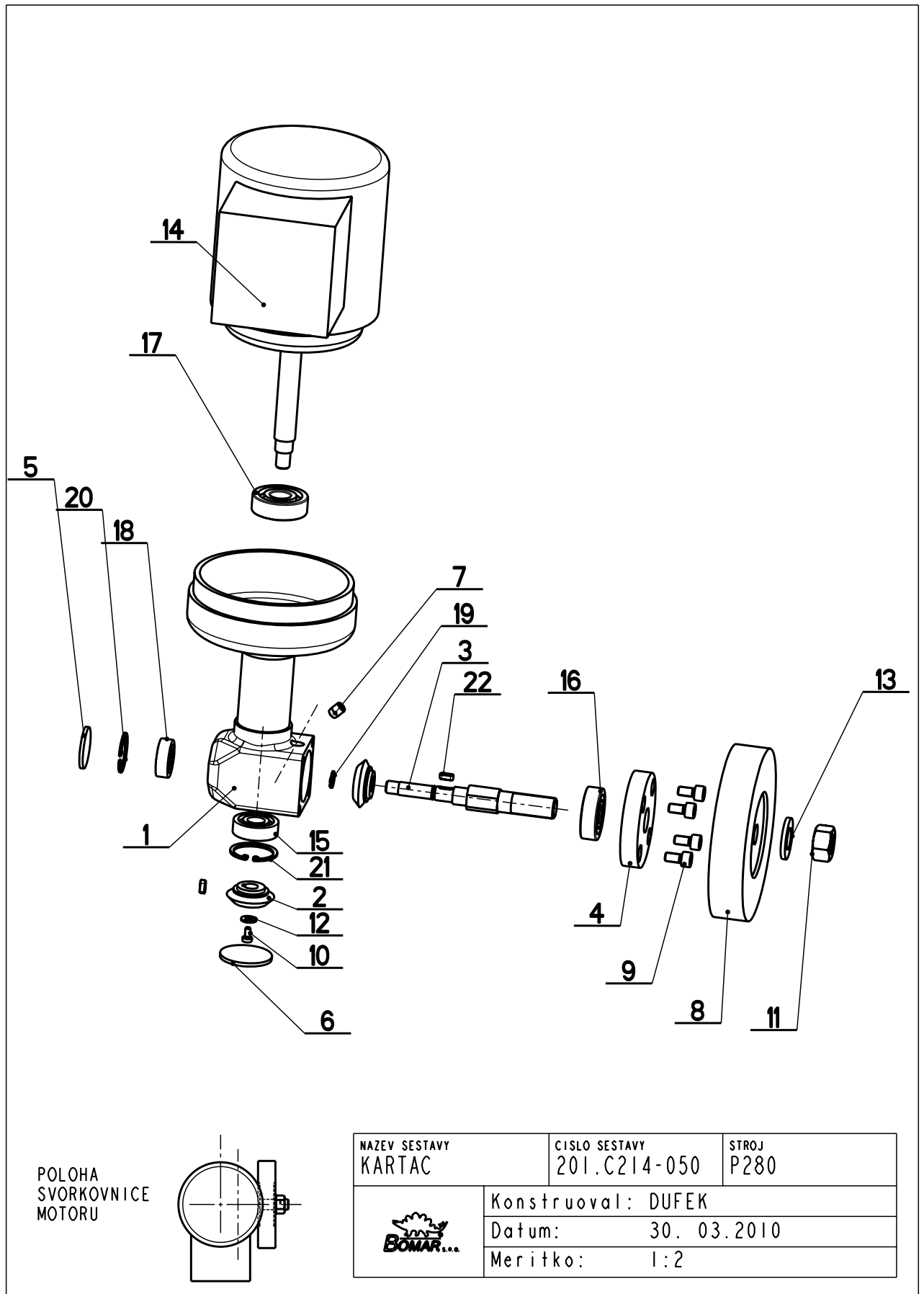


NAZEV SESTAVY KOSTKA VODICI	CISLO SESTAVY 201.6410-060	STROJ EX1120
	Konstruoval: RYSAVY	
	Datum: 08. 01.2010	
	Meritko: 1:2	

7.24. Kusovník / Stückliste / Piece list –
Vodící kostka / Führungsklotz / Guiding cube - 2

Císlo Sestavy 201.6410-060		Ver. 1		Název sestavy KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ	
Poz.	Objednáací číslo	Ver.	Název položky	Rozměr	Ks
1	201.5910-320	0	VEDENÍ / GUIDE / BACKENFÜHRUNG		1
2	30.6210-107	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M10x35	2
3	30.6410-061	0	KOSTKA VODÍCI / LEAD CUBE / FÜHRUNGSKLOTZ	HR 130 x 80	1
4	30.6410-100	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		1
5	30.6410-200	0	DRŽÁK TVRDOKOVU / POA HOLDER / HM-HALTER		1
6	30.6710-108	1	KOLÍK / PIN / BOLZEN	TYC 10	1
7	30.6710-109	0	PIST / PISTON / KOLBEN	d 32	1
8	30.6710-110	1	KROUZEK / RING / RING	LH 2403210	1
9	90.001.25.011	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x25	4
10	90.004.2D.002	0	SROUB STAVECÍ / ADJUSTMENT BOLT / STELLSCHRAUBE	SROUB M6x12	1
11	90.011.27.016	0	SROUB ZAPUSTNÝ / COUNTERSINK BOLT / SENKSCHRAUBE	SROUB M8x25	3
12	90.154.50.003	0	PODLOŽKA / WASHER / UNTERLEGSCHLEIBE	10x16x0.50	2
13	90.350.0Z.005	0	PRUŽINA TALIROVA / DISC SPRING / TELLERFEDER	20x10.2x1	16
14	95.001.044	0	LOŽISKO KULÍ / RADE / BEARING / LAGER	609 2RS	2
15	95.800.002	0	KROUZEK POJIST.VNEJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTNÝ KROUZEK 8	2

7.25. Kartáč / Bürste / Brush



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

Císlo Sestavy 201.C214-050		Název sestavy KARTAC/BRUSH/BÜRSTE			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.C214-051	0	TELESO / BODY / KÖRPER		1
2	30.C214-052	0	KOLO OZUBENÉ / COG WHEEL / ZAHNRAD	M1, 26Z	2
3	30.C214-053	0	HRÍDEL / SHAFT / WELLE	d 14	1
4	30.C214-055	0	VÍKRO / COVER / DECKEL	TYC 55	1
5	31.C214-056	0	VÍKRO / COVER / DECKEL		1
6	31.C214-057	0	VÍKRO / COVER / DECKEL		1
7	31.C214-058	0	ZATKA / PLUG / STOPFEN		1
8	49.250.017	0	KARTAC / BRUSH / BÜRSTE	SPB 100x12	1
9	90.001.55.078	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M5x10	4
10	90.012.50.XXX	0	SROUB / BOLT / SCHRAUBE	SROUB M3x6	1
11	90.100.25.004	0	MATICE / NUT / MUTTER	MATICE - M12 LH	1
12	90.150.50.002	0	PODLOZKA / WASHER / UNTERLEGSCHLEIBE	PODLOZKA 4.3	1
13	90.150.50.007	0	PODLOZKA / WASHER / UNTERLEGSCHLEIBE	PODLOZKA 13	1
14	91.001.097	0	ELEKTROMOTOR / ELECTRIC MOTOR / ELEKTROMOTOR	60W, 380V, 1400o1/min	1
15	95.001.004	0	LOŽISKO / BEARING / LAGER	6000 2RS	1
16	95.001.014	0	LOŽISKO / BEARING / LAGER	6200 2RS	1
17	95.001.028	0	LOŽISKO / BEARING / LAGER	6201 2RS	1
18	95.001.054	0	LOŽISKO / BEARING / LAGER	627	1
19	95.800.002	0	KROUZEK POJIST.VNĚJS / OUTSIDE SAFETY RING / SICHERUNGSRING AUBEN	POJISTVY KROUZEK 8	1
20	95.801.019	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTVY KROUZEK 22	1
21	95.801.020	0	KROUZEK POJIST.VNITR / INSIDE SAFETY RING / SICHERUNGSRING INNEN	POJISTVY KROUZEK 26	1
22	95.810.XXX	0	PERO / SPRING / FEDER	PERO 3x3x8	2

7.27. Třískový vynašeč / Spanabführung / Chip extractor

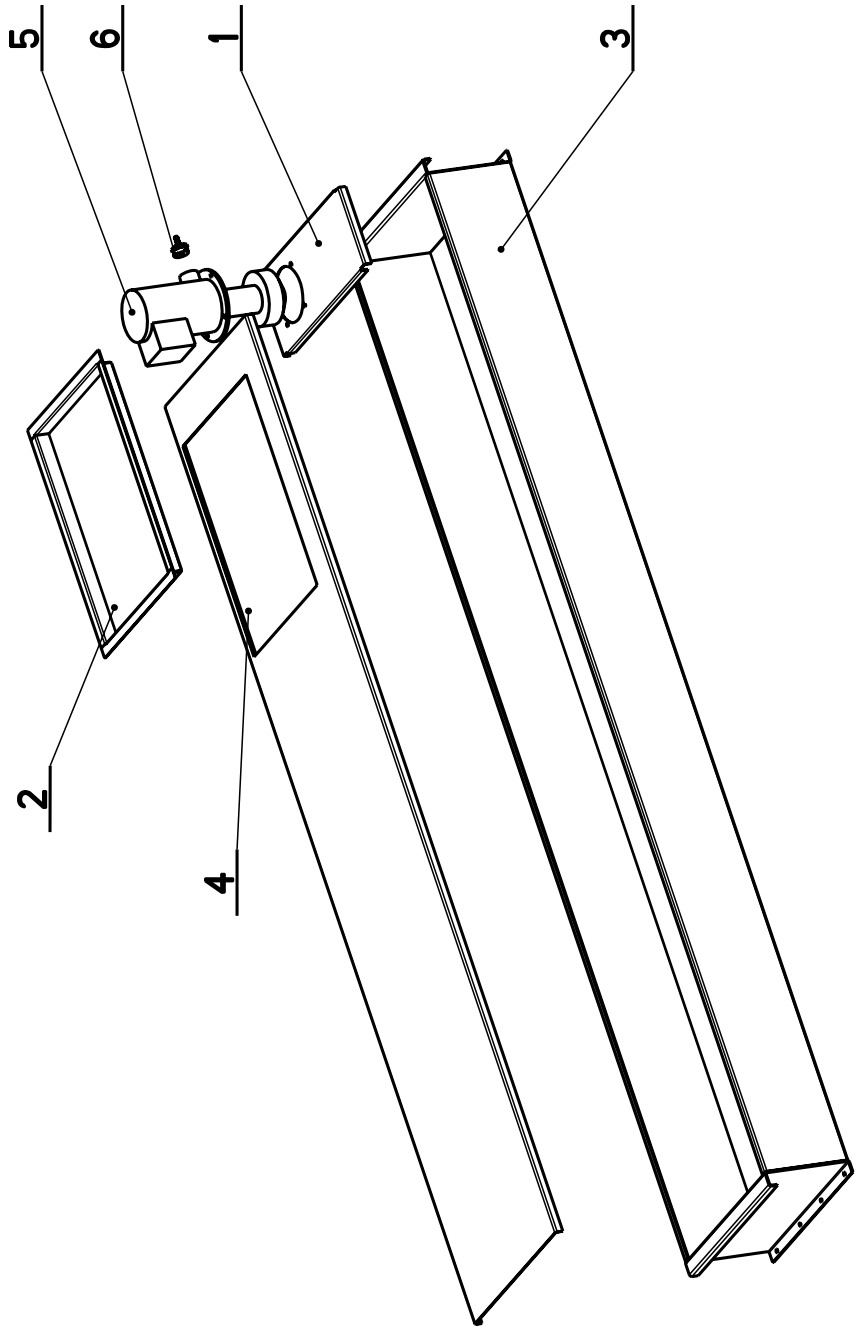
Císlo Sestavy 201.6417-000		Název sestavy VYNAŠEČ TRÍSKOVÝ/CHIP EXTRACTOR/SPANABFÜHRUNG			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	201.6017-103	0	KOLO NAPÍNAČI / TENSIONING WHEEL / UMLENKRAD		1
2	201.6017-250	1	POHON / DRIVE / ANTRIEB		1
3	201.6717-304	1	RETEZ / CHAIN / KETTE		15
4	30.6217-205	2	KRYT / COVER / ABDECKUNG	P2-278	1
5	30.6417-005	0	KRYT / COVER / ABDECKUNG		1
6	30.6417-101	0	KORYTO / CHANNEL / Rinne		1
7	90.005.55.012	0	SROUB 6HRANNÝ / 6 SIDED BOLT / SECHSKANTSCHRAUBE	SROUB M6x40	2
8	90.100.55.004	0	MATICE / NUT / MUTTER	MATICE - M6	2

I. ZRUS. POHON 201.6017-150 A NAHR. 201.201-6017-250,
 ZRUS. KORYTO 30.6417-001 A NAHR. 30.6417-101. 192/ZM196 20.6.2008 SLEZACKOVA

KRYT A KORYTO SESROUBOVAT,
 POD SROUBY M4 PRIPEVNIT
 DRZAK 30.9010-003 PRO KABELY POHONU

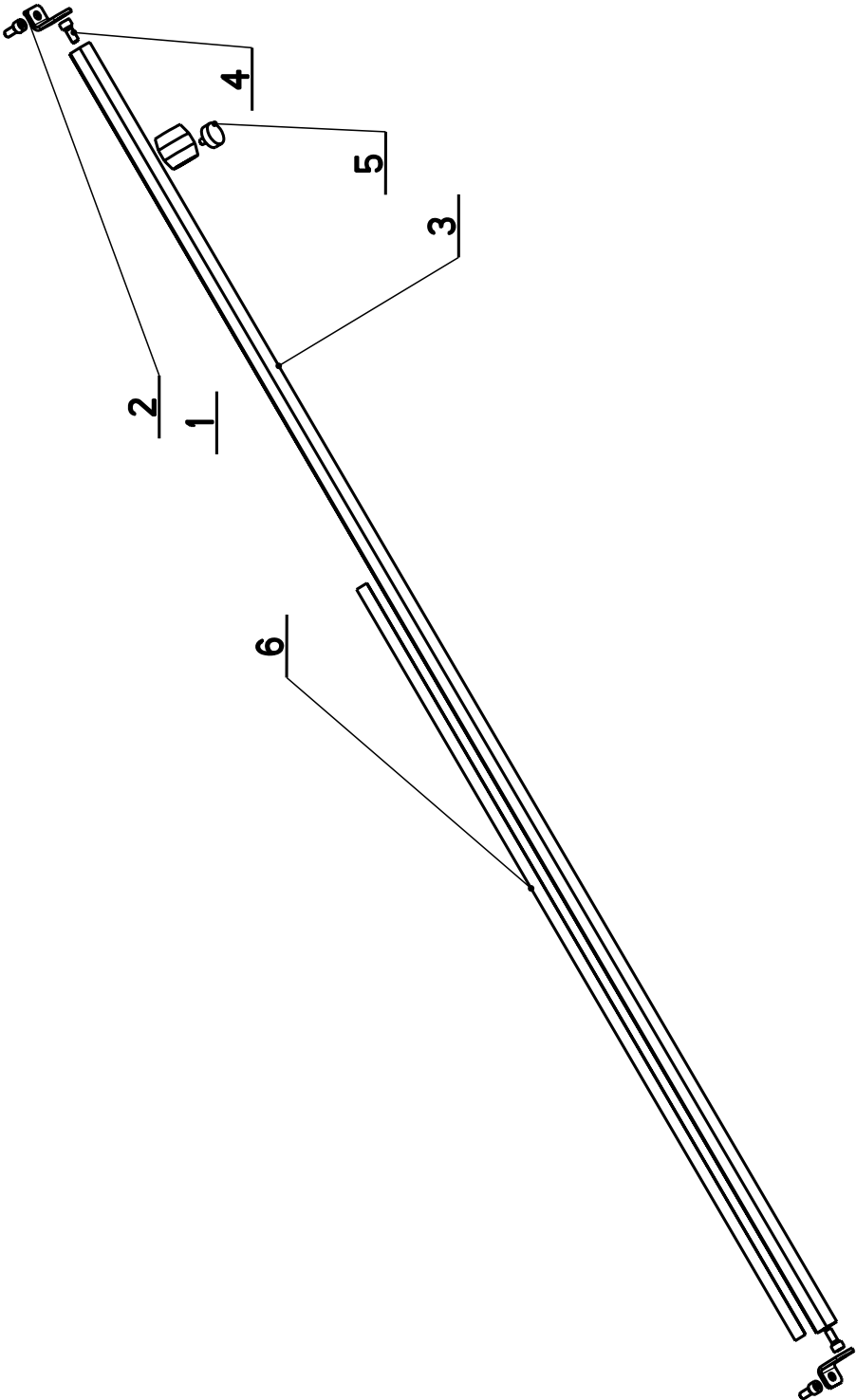
I : 20

7.28. Chlazení / Kühlung / Cooling

Císlo Sestavy 201.6406-000	Ver. 0	Název sestavy CHLAZENÍ / COOLING / KÜHLUNG																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Poz.</th> <th style="width: 40%;">Objednací číslo</th> <th style="width: 10%;">Ver.</th> <th style="width: 30%;">Název položky</th> <th style="width: 10%;">Rozměr</th> <th style="width: 10%;">Ks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>30.6206-102</td> <td>0</td> <td>PLECH / PLATE / BLECH</td> <td>P 1.5x186x410</td> <td>1</td> </tr> <tr> <td>2</td> <td>30.6206-104</td> <td>0</td> <td>SÍTO / SIEVE / GITTERWERK</td> <td>P 1.5 x386</td> <td>1</td> </tr> <tr> <td>3</td> <td>30.6406-001</td> <td>0</td> <td>MADRZ / CONTAINER / BEHÄLTER</td> <td></td> <td>1</td> </tr> <tr> <td>4</td> <td>30.6406-002</td> <td>0</td> <td>PLECH / PLATE / BLECH</td> <td>P 1.5 - 410</td> <td>1</td> </tr> <tr> <td>5</td> <td>91.020.009</td> <td>0</td> <td>CERPADLO / PUMP / PUMPE</td> <td>3COA 2-14</td> <td>1</td> </tr> <tr> <td>6</td> <td>94.202.005</td> <td>0</td> <td>REDUKCE / REDUCTION / ADAPTOR / REDUKTION</td> <td>3/4"-6</td> <td>1</td> </tr> </tbody> </table>	Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks	1	30.6206-102	0	PLECH / PLATE / BLECH	P 1.5x186x410	1	2	30.6206-104	0	SÍTO / SIEVE / GITTERWERK	P 1.5 x386	1	3	30.6406-001	0	MADRZ / CONTAINER / BEHÄLTER		1	4	30.6406-002	0	PLECH / PLATE / BLECH	P 1.5 - 410	1	5	91.020.009	0	CERPADLO / PUMP / PUMPE	3COA 2-14	1	6	94.202.005	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	3/4"-6	1		
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks																																							
1	30.6206-102	0	PLECH / PLATE / BLECH	P 1.5x186x410	1																																							
2	30.6206-104	0	SÍTO / SIEVE / GITTERWERK	P 1.5 x386	1																																							
3	30.6406-001	0	MADRZ / CONTAINER / BEHÄLTER		1																																							
4	30.6406-002	0	PLECH / PLATE / BLECH	P 1.5 - 410	1																																							
5	91.020.009	0	CERPADLO / PUMP / PUMPE	3COA 2-14	1																																							
6	94.202.005	0	REDUKCE / REDUCTION / ADAPTOR / REDUKTION	3/4"-6	1																																							

7.29. Odměrování / Gehrungsmessung / Measuring

Cislo Sestavy 201.6414-030		Název sestavy ODMĚROVÁNÍ / MEASURING / GEHRUNGSMESSUNG			
Poz.	Objednací číslo	Ver.	Název položky	Rozměr	Ks
1	30.2014-001	0	OBJÍMKA / CLAMP / KLAMMERSTÜCK		1
2	30.6114-023	0	DRŽAK / HOLDER / HALTER	P 3x20	2
3	30.6414-031	0	TYC / POLE / STANGE	d 20	1
4	90.001.25.092	0	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M6x14	4
5	94.007.001	0	SROUB / BOLT / SCHRAUBE	M5x10	1
6	99.120.002	0	PRAVITKO / RULER / SKALENBANDMAß		1



7.30. Rošt / Gitter / Grill

Císlo Sestavy 201.6418-100	Ver. 0	Název sestavy ROST/GRILL/GITTER		
Poz.	Objednací číslo	Název položky	Rozměr	Ks
1	30.6418-101	DRŽAK / HOLDER / HALTER	SVARENO	1
2	30.6418-102	ROST / GRILL / GITTER		1
3	90.150.50.009	PODLOŽKA / WASHER / UNTERLEGSCHIEBE	PODLOŽKA 17	2
4	90.001.25.086	SROUB IMBUS / ALLEN HEAD BOLT / IMBUSSCHRAUBE	M16x40	8

