



OPERATING AND ASSEMBLY MANUAL

ORIGINAL
INSTRUCTION MANUAL

PANEL

SAW

MS750

Form #2549



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1. GENERAL INFORMATION

1.1. Purpose of the manual

To ensure a safe and proper operation of the sawing machine, please read thoroughly the Operator's Manual.

1.2. Correct use

The sawing machine is designed for sawing of chipboard and laminated boards and the longitudinal and transverse sawing of wood. It is also possible to cut plastic, but it is important to remember that a significant amount of heat is emitted when cutting plastic. This may cause filling areas between the teeth of the circular saw blade with elastic sticky mass. Sawing with such contaminated saw blade is forbidden.

No other use of the chainsaw is intended. The company "REMA" is not responsible for any damages arising out of use of the machine against of destination.

For proper operation, carefully read the manual.

1.3. Contraindications of use

The sawing machine is not suitable for sawing: metals, food products, minerals, bones.

1.4. Warranty, liability for the manufactured product

Extension of warranty and product liability coverage is excluded if any type of damage caused by the use of the device is due to the following reasons:

- Improper of use of the sawing machine,
- Incompetent of operation and maintenance of sawing machine,
- Operation of the machine, despite faulty safety devices malfunctioning, or faulty installation of protective,
- Failure to comply with the operating recommendations, storage, maintenance and arming the machine,
- Making unauthorized construction changes of sawing machine,
- Use of another type of electric motor with parameters different then provided,
- Improperly performed repair of sawing machine,
- Cutting hard solids, e.g. metal debris, stones,
- Other random events.

1.5. Function and design

The sawing machine consists of the following units: the working table, the body, cradle unit, moveable table, auxiliary table, cutting aggregate, top cover, electric system, angle ruler.

- The work table is made of iron and is attached to the body with a screw. In front of the table to the face plane is mounted roller, which is the guide of the longitudinal ruler. The ruler is blocked on the shaft by eccentric clamp. On the right side and at the back of the table, the table extensions are screwed on.
- The body of sawing machine is welded construction. Inside the body there is: cutting aggregate, the scoring unit, cradle unit and electric equipment.
- The cutting aggregate consists of a spindle and scoring mechanisms: tilting and lifting the spindle and drive system (motor + belt drive). The drive for tilting and lifting the spindle is done manually by a wheel located on the body next to the control panel. The scoring is able to be moved vertically and horizontally, parallel to the axis of the main spindle. This scoring unit is used to undercut chipboard with refined surfaces, which prevents a chipping a veneer on the edges.

- - The value of the angle and the height of the saw blade are indicated on gravity indicators mounted on the handwheel (*standard equipment*). The cradle of the saw is also the lower part of the nozzle.
The movable table consists of the aluminium table, the slide and carriage. Guides are mounted to the table and the guide, on which the table moves relative to the guide on a roller carriage. Moving table can be locked by the latch. The latch is pulled back to the unlocked position while working on a moving table. On the movable table there is mounted blocking wedge, which is used as a support during longitudinal cutting of boards.
- The top cover is bolted to the body with a special bracket. The cover is made of plastic and steel with polycarbonate inserts on the sides. Handles and a gas spring are used to adjust the guard to the correct height. The cover bracket is also equipped with a dust outlet to which the dust extraction system hose is connected.
- The auxiliary table consists of two parts: the bracket and a table. The auxiliary table is mounted with one end on a bracket, and the other end is attached to the movable table with an eccentric clamp. The auxiliary table can be moved along the moveable table. During operation, the auxiliary table moves together with the movable table. On the auxiliary table is a cross ruler equipped with two length scales. The ruler can be mounted on the front or back of the table. The ruler can be set at an angle of $90^\circ \div 45^\circ$ relative to the plane of the saw blade. The auxiliary table must be locked to the moving table guide during operation.
- The electrical equipment is located in a cover-sealed recess. The control panel is located on the body of the saw. On the control panel, there are "START" and "STOP" buttons for the main spindle and a switch that allows operation with or without scoring (*standard equipment*). The "STOP" button also functions as an emergency button. The main switch is located on the side of the machine body branch and can be locked with a padlock in the off position. Electric motors are placed inside the machine. They are protected against overload by thermal relays. The main spindle motor has an electromagnetic brake that stops the spindle in 10 seconds.

1.6. Manufacturer's reservation of the rights

The manufacturer may introduce any modification of parts or accessories without reediting of operating manual and catalogue of parts if it does not influence substantially on the operation of the machine and safety at work rules. The Operating Manual is intended only for the machine to which it is attached.

1.7. Manufacturer

„REMA” S.A.
ul. Bolesława Chrobrego 5
11-440 RESZEL
POLAND
tel. +48 89 755-00-05
fax. +48 89 755-07-49

2. BASIC INFORMATION ABOUT THE SAFETY OF WORK

2.1. Follow the information in the operation manual

- The basic requirement for following the safety rules for the operation of the chainsaw and its efficient functioning is the knowledge of basic information on work safety and the rules of the field.,
- This manual contains important information needed for compliance with the safety operation of the sawing machine,
- This manual, especially the safety information work must be respected by all the persons working on the sawing machine,
- It is also necessary to comply with the rules and regulations for accident prevention in place where the chainsaw is installed.

2.2. Obligations of the user and the operating personnel

The user of the saw is obliged to allow only persons who:

- have familiarized themselves with basic workplace safety and accident prevention regulations and are prepared to operate a saw,
- have read and understood the section on work safety and warning information included in this manual, confirming it with their signatures.
- They have clearly defined operating competencies for activities such as operation, service and maintenance of the machine.

At regular intervals, inspect the work of personnel operating the saw for compliance with safety regulations. Trained operators may operate the saw only in the presence of an experienced operator. It is the responsibility of every employee to follow basic work safety rules and accident prevention methods.

2.3. Hazards associated with operating a panel saw

The sawing machine is constructed in accordance with the current state of the technology and generally accepted technical safety rules. However, it should be reckoned with the fact that during the operation of the saw, there may be risks to the health and life of both operating personnel and bystanders, as damage may occur inside the saw.

The saw can be operated only under the following conditions:

- The use of the saw will be in accordance with its intended use,
- The condition of the saw will meet the technical requirements for safety,

Any defects or malfunctions that may adversely affect the safety of the saw must be proactively corrected. The following hazards may be present on the saw:

- Kickback of sawn material
- Electric shock,
- Touching a saw blade,
- Hit by a broken tooth of saw blade,
- Associated with the presence of mobile means of transmission,
- Associated with the operation of a moving table in the absence of the use of handles designed for the movement of the work table,
- Injury to bystanders, e.g. by moving the moveable table.

2.4. Protective devices

- Before each start of the saw, it is necessary to properly install all safety devices and ensure that they are ready for operation,
- Removal of safety devices is possible only in the following situations:
 - a) after the sawing machine has been stopped,
 - b) securing protection of the machine from restarting.

With the delivery of partial components, the user is required for compliance with the provisions attaching protective devices.









The saw uses the following safety devices:

- Top cover protecting the saw blade.
- Lower suction nozzle guard with limit switch and cutting disc guard,
- Electrical equipment recess cover,
- Riving knife for protection against kickback of sawn material
- Installation of electric shock protection
- Belt transmission cover,
- Protective color indicating hazardous areas

2.5. Personal protective equipment

When working on the saw, wear ear protection and safety glasses, wear close-fitting protective clothing, use appropriate footwear.

2.6. Explanation of symbols

	Electric voltage
	The risk of danger
	The direction of rotation of tools
	Use protective clothing
	Use hearing protection
	Use protective goggles
	The main spindle
	The scoring

2.7. Indirect protective operations

- The instruction manual should always be kept at the place where the saw is used,
- As a supplement to the manual, generally applicable local regulations for accident prevention and environmental protection should be prepared, which must also be fully complied with,
- All information placed on the saw regarding work safety and any hazards must be maintained in a condition that makes it readable.
- Materials and raw materials should be handled properly, and their waste should also be disposed of

2.8. Safety measures during normal sawing machine operation

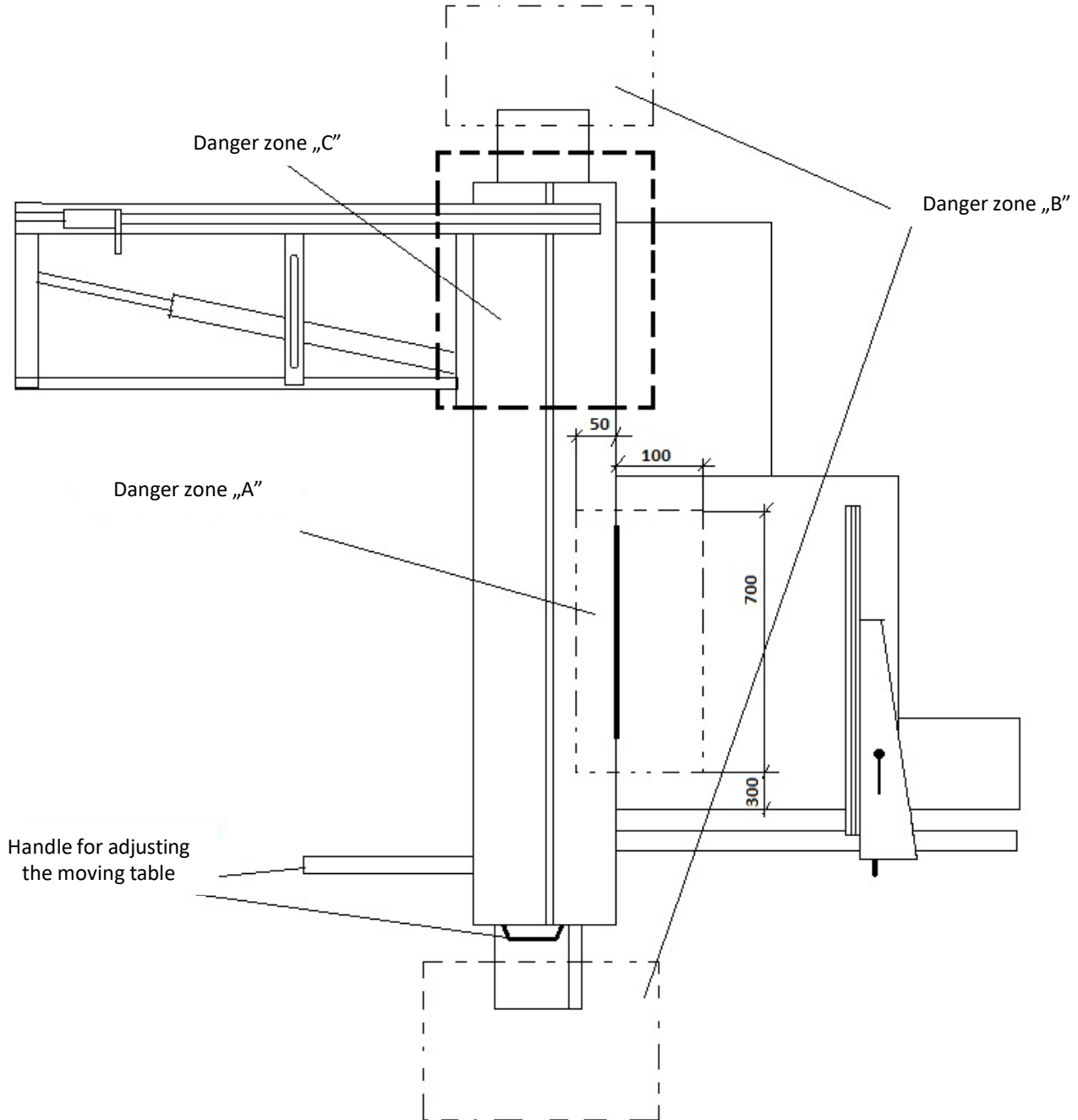
- Saw can be turned only when all safety devices are fully operational,
- Before turning on the saw, make sure that no one will be exposed to danger when the saw is turned on,
- The machine should be inspected at least once during the shift for visible external damage and the effectiveness of safety devices, which should include the following steps:
 - a) main switch - by a test of functionality
 - b) emergency switch - by a test of functionality
 - c) turn off the suction nozzle - when the saw is off, open the cover of the lower nozzle, press the START button, the device should not turn on.

2.9. Safety measures when using the saw

- The execution of work on electrical supply should be entrusted to workers with authorization, in order to reduce the risks associated with electrical supply, the following rules should be followed:
 - Regularly check the electrical insulation of saws. Immediately remove loose connections and broken wires in the machine,
 - the control box must be left always closed.
 - do not carry out repair work when the power supply to the saw has not been switched off.

2.10. Special hazard zones

Danger zones for the saw are shown on the figure below.



- a) Possibility of touching of the saw blade. Use extraordinary caution when working near the area. Special attention should be paid to the saw blade for undercutting. Its braking time is longer than the main saw blade.
 - b) in the case of not using the handles designed to implement the work movement of the moving table (such as grasping the metal guard) must take into account the possibility of damage to fingers.
 - c) In the working area of the swivel bracket, there is the possibility of the guide striking the operator's lower limbs. When working near this area, use extreme caution.
-
- Systematically carry out adjustment, maintenance and inspection work.
 - Before starting maintenance and repair work, personnel should be trained in this field.

2.11. Maintenance, service and damage repair

- When carrying out repairs and maintenance, use a safe methods of work,
- Immediately replace all saw parts whose state is questionable,
- If the bolted connections are found to be loose, re-tightening is necessary,
- After maintenance, check the operation of safety devices.

When performing all maintenance, inspections and repairs, perform the following steps:

- Disconnect the saw from the power supply with the main switch and protect it from unexpected restarting, such as with a padlock.
- Include a sign warning against restarting.

2.12. Implementing modifications to saw design

- Without the permission of the manufacturer, it is not allowed to make any changes to the saw, as well as its development and remodeling.
- All reconstruction projects absolutely require written confirmation from REMA
- For any wearing parts, use only original spare parts when replacing them,
- If non-original replacement parts are installed, there is no guarantee that they are designed and manufactured to meet reliability and safety requirements.

2.13. The noise level

The sound pressure level at the work place (board cutting) is 87.7 dB (A) expanded uncertainty $K = 2$. The sound power level is 103.2 dB (A) expanded uncertainty $K = 2$. The measurement was made in accordance with (PN-ISO 3746: 2010). The given value refers to emission levels and not necessarily to noise levels in the workplace. Although there is a relationship between emission and exposure levels, it is not possible to determine with certainty whether or not preventive measures are needed. Factors affecting the actual level of exposure during operation include room characteristics and other noise sources, eg the number of machine tools and processes occurring in the neighborhood. Also, the value of the acceptable exposure level may vary depending on the country. This information will allow the machine user to better determine the risk risks.

2.14. Procedure in case of an accident or failure

In the event of an accident or failure, shut down the machine and prevent it from restarting by turning off the main switch. In the event of an accident or failure, follow the local plan of action.

3. TRANSPORT AND STORAGE

3.1. Dimension, weight, centre of gravity location, packaging

The saw for transport is partly disassembled. The disassembled parts are protected with a special wrap and packed on the machine table.

Due to the compact design of the machine, the center of gravity is located approximately in the middle of the total dimensions of the machine.

3.2. Loading, transport, unloading

Loading and unloading of the saw, as well as transport inside the company, can only be carried out with a forklift with a capacity of at least 800 kg. When loading and unloading, be careful that the machine does not slip off the forks of the forklift. Pay attention to the correct length of the forks.

Transport outside the worksite can only be done by covered transport, which protects the saw from the weather. During transport, the saw should be very strictly protected from movement.

3.3. Control during taking over by the recipient

After receiving the shipment and carefully unpacking the saw, check its general condition and the contents of the disassembled parts in accordance with the packing list (see section 4.2).

We accept the reporting and documentation of damage caused during transport in accordance with generally applicable rules.

3.4. Storage location, duration, safety measure

Saw for transport and storage is protected with anti-corrosive products (unpainted parts, parts without plating). The saw in this condition can be stored at an ambient temperature of $-15\text{ °C} \div 40\text{ °C}$ for a period of two months. After this period, check the state of preservation and, if necessary, clean and preserve it again.

4. DATA OF THE SAWING MACHINE

4.1. Name, type and serial number

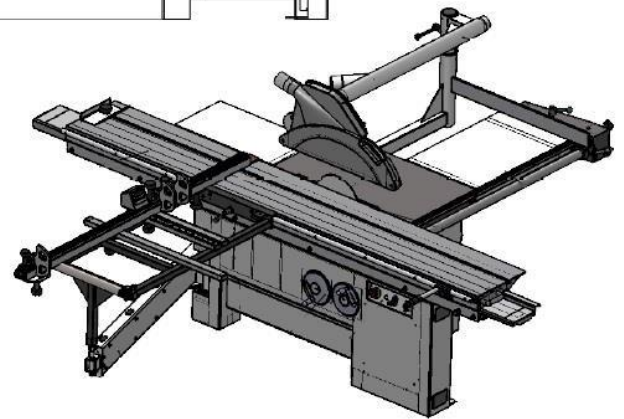
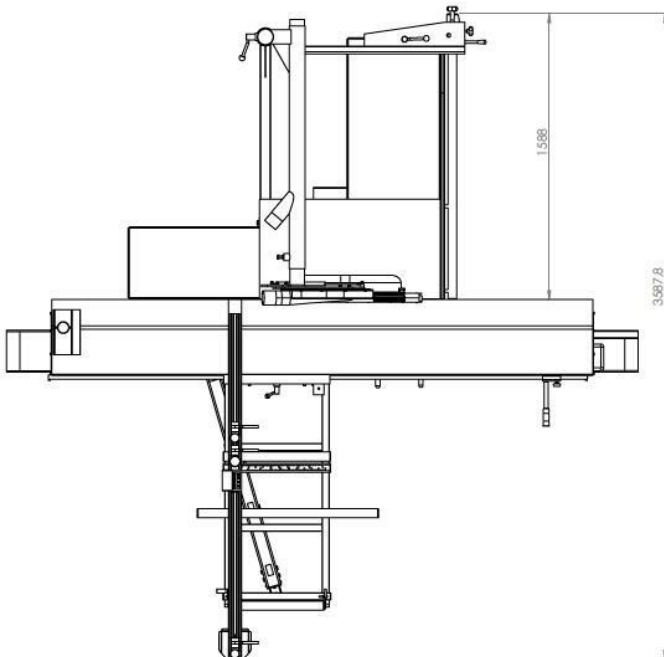
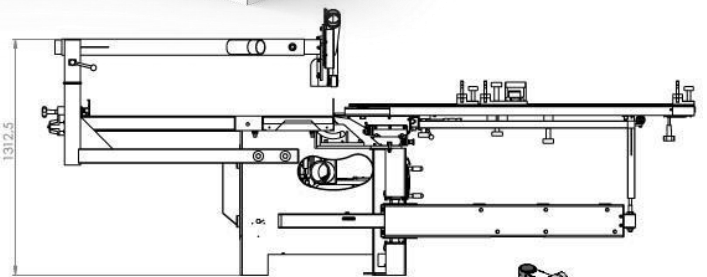
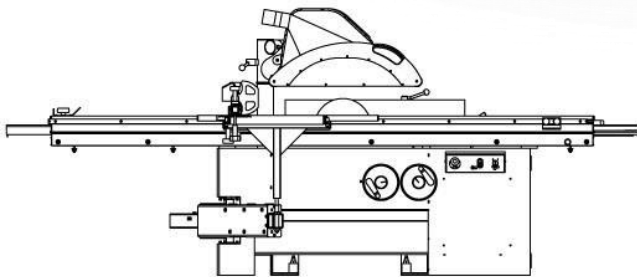
Panel Saw **MS750** Serial number Year of construction.....

4.2. Package contents

The saw is equipped with the following units:

- a) Auxiliary table
- b) Longitudinal ruler,
- c) The cover on the bracket,
 - 1 riving knife 35x2,6 DIN 38820,
 - 1 key 41x24 RUE-088,
 - 1 key 19 RUE-055,
 - 1 wrench RWTG-8,
 - 1 pusher fig.128.23.00.000,
 - 1 pusher fig. 048.00.45.00

4.3. General view of the saw



4.4. Technical data

Tilt of saw blade	0÷45°	
Main motor power	6kW	
Main spindle rotation speed	3500, 4500 RPM	
Main spindle tip diameter	Ø30mm	
Main saw blade diameter	Ø300÷Ø350mm	
Scoring unit saw blade diameter	Ø125	
Scoring unit motor power	0,75kW	
Scoring unit spindle rotation speed	8500obr/min	
Scoring unit tip spindle diameter	Ø20mm	
Max. distance between rip fence and saw blade	1300 mm	
Width of sawing using stops on auxiliary table	60÷3200mm	
The height adjustment of the main saw blade in vertical:	In vertical	At angle 45°
for Ø300mm	0÷90 mm	60 mm
for Ø350mm	3÷115 mm	80 mm
The length of sawing:	With fence set at the back of auxiliary table	
For version with movable table 1900	1900	
For version with movable table 2500	2500	
For version with movable table 3010	3000	
Extraction outlet diameter - bottom	Ø125mm	
Extraction outlet diameter – top cover	Ø80mm	
Air request of extraction system - bottom	2800 m ³ /h	
Air request of extraction system - top	5000 m ³ /h	
Suction air speed	22m/s for dry sawdust and 28m/s for wet sawdust	
Weight	800 kg	

4.5. Ambient temperature

The Manufacturer guarantees proper operation of the sawing machine in the temperature range +10°C ÷ +35°C.

4.6. Corrosion protection

All saw parts that are not coated with paint or galvanic coating must be protected against corrosion for transportation or long-term storage. Recommended anti-corrosive products are:

Anti-corrosion oil Mulkator WD, Antykol M, Anticorit OHK, preparation WD 40, Rust Check, Belzona code Noto C - 634, Protec – 1000

4.7. Waste removal

The saw is equipped with sawdust extraction system connectors. Connecting them to the sawdust extraction system should be done before starting the machine.

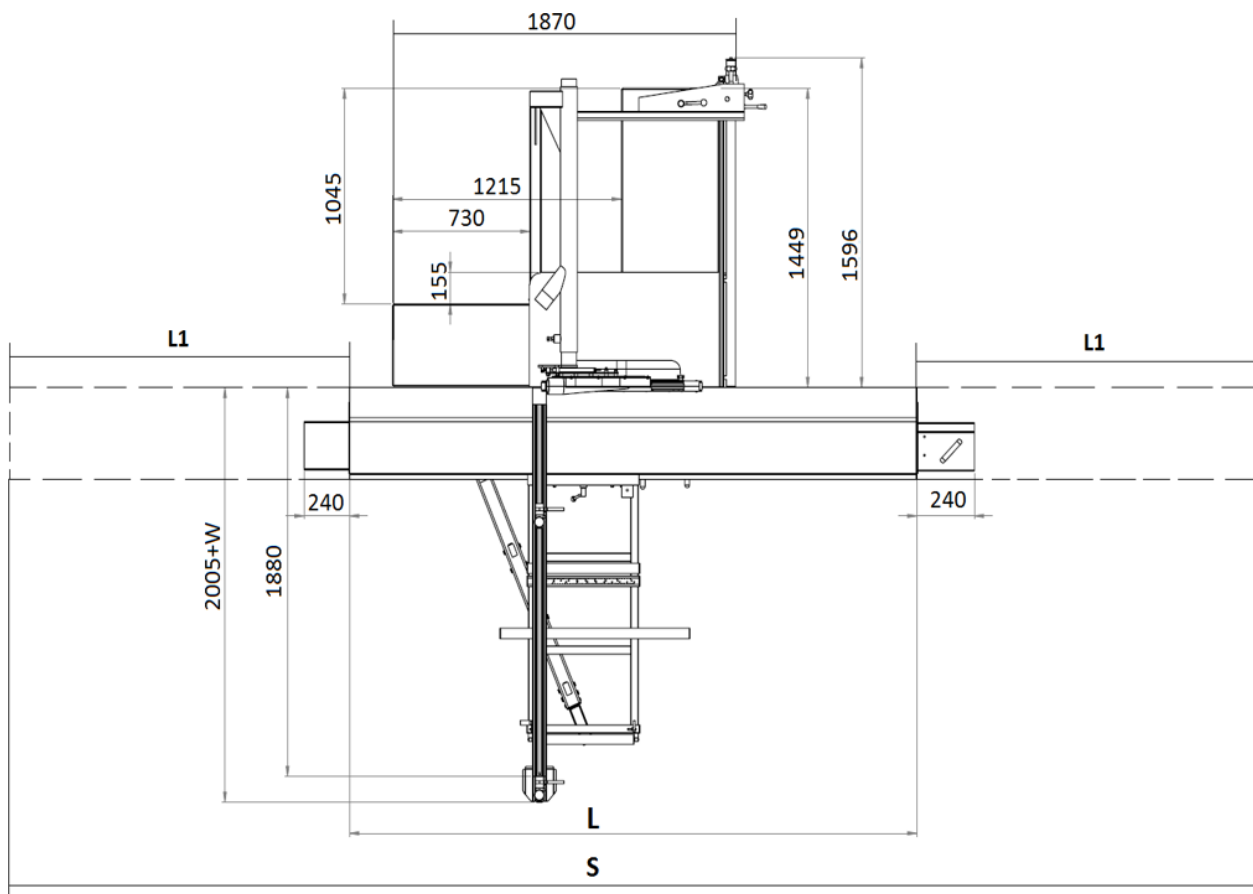
In the case of connecting a flexible hose, it must meet the condition of antistaticity at $R < 10^8 \Omega$ for example, pneumatic suction hose: flame-retardant P2UP version AS from TUBES Poznan with an inner diameter Ø125mm (bottom nozzle) Ø80 (top cover). Store the remaining waste after cutting in appropriate containers for further use or utilization by handing over to appropriate authorized services.

5. POSITIONING, ASSEMBLING AND START-UP

5.1. Place of settings, the working stand

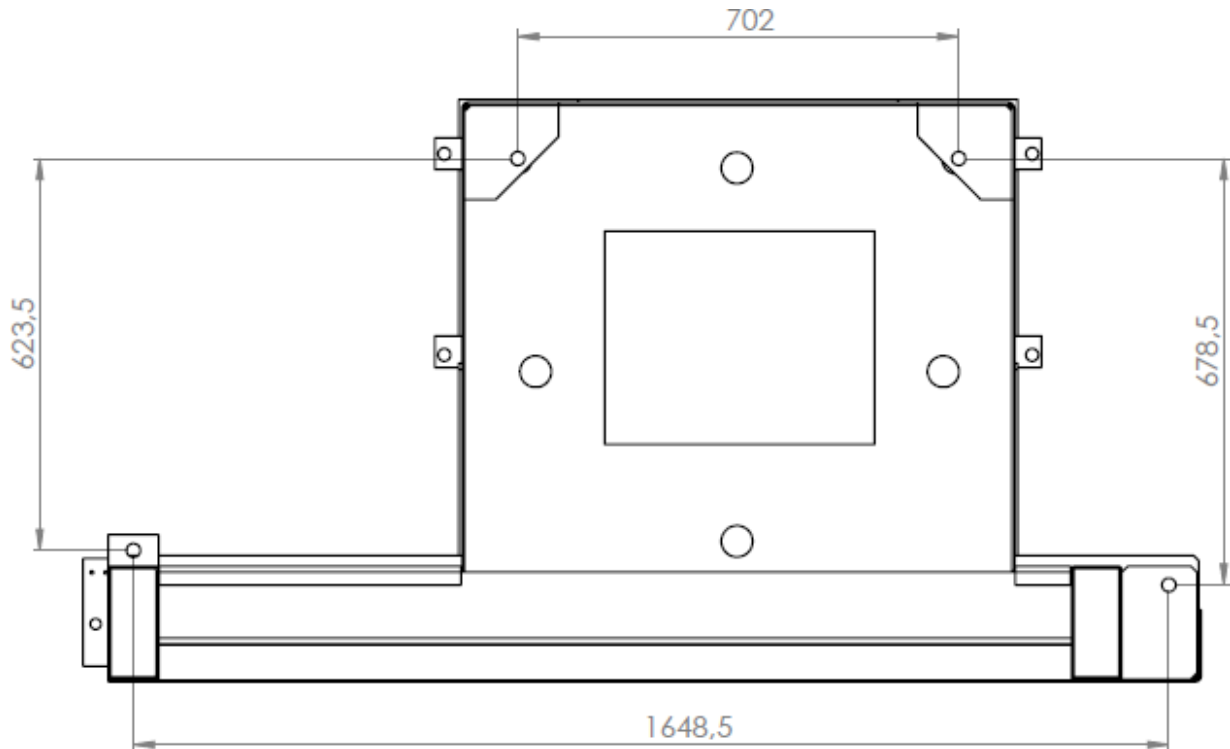
The location of the saw in the production space depends on the type of production, the means of transportation in the plant, etc. The following are the minimum space requirements and working position for proper operation of the machine.

Moveable table	L	L1	S
1900	1900	1124	4148
2500	2500	1436	5372
3010	3010	1709	6428



5.2. Scheme of foundation, alignment and installation

The machine should be placed on a concrete foundation made according to the drawing shown below, fixed with four anchor bolts. The concrete for the foundation should be B15 grade. After setting, the machine should be leveled to an accuracy of 0.3/1000 mm.



5.3. Safety measures

Before mounting the sawing machine:

- remove the protections installed in it during transport (fixing the swivel bracket to the body)
- clean the surfaces protected with maintenance grease, using technical gasoline as a solvent
- clean surfaces must be coated with a thin layer of spindle oil

5.4. Connecting to the power supply

The saw must be connected to the power supply: 3x400V + N + PE 50Hz 5x4mm² cable length max. 5m.
The terminals L1, L2, L3, N, PE are located in the lower part of the electric panel.

5.5. Operating elements and scales

In the table unit:

- Aluminum longitudinal scale guide locking handle,
- Locking handle of the longitudinal scale guide,
- Scale locking screw,
- Scale for reading the cutting width,

On control panel:

- ON and OFF buttons for the main saw blade and the undercutting blade,

In the moveable table unit:

- Sliding table lock handle,
- Locking wedge locking handle,
- Handle for implementation of work movement,

In top cover unit:

- Locking handle to move the lid vertically,

In auxiliary table:

- Locking handle of the auxiliary table relative to the movable table,
- Transverse ruler locking handle,
- Locking handle for extending the transverse ruler extension,
- Locking handle for sliding out the support roller,
- Handles locking the limiters on the cross ruler,
- Scale for reading the cutting width,

In the body unit on the control panel height:

- Knob for moving the scoring unit in horizontal direction,
- Knob for lifting and lowering the scoring unit.
- Handwheel for setting the height of the saw blade,
- Handwheel for setting tilt angle of saw blade,
- Dial gravity indicator of saw blade height,
- Dial gravity indicator of saw blade tilt.

(standard equipment)

5.6. Saw cutting capabilities

The following operations can be performed on the MS750 saw:

- a) At the longitudinal ruler:
 - Longitudinal sawing of the timber,
 - Cutting small and medium formats of laminated and carpentry boards up to 1200 mm wide,
 - Cutting narrow and thin slats on the low side of the aluminum fence.
- b) At the transverse ruler:
 - Transverse cutting of large formats of laminated boards and carpentry boards to a width of up to 3200 mm, the width is set by limiters according to the scale or digital indicator and when the fence is set at an angle of $90^\circ \div 45^\circ$ to the plane of the main saw according to the scale on the auxiliary table.

The transverse ruler can be adjusted with relation to the saw plane in the range of $90^\circ \div 45^\circ$. In addition, this ruler can be mounted at the back or front of the auxiliary table, which makes it possible to change the length of cut. These operations can be performed with the saw angled in the range of $0^\circ \div 46^\circ$ and in the vertical position in the range of $0 \div 145\text{mm}$.

5.7. Preparing the saw for the initial start-up.

Before starting the saw, you should:

- Carefully read this manual,
- Check the accuracy and tightening of the saw blades,
- Close the cover and doors: electrical box, belt drive recess and lower nozzle cover,
- Lock the auxiliary table on the moving table,
- Check that the saw blades are not in contact with saw parts (if contact occurs, remove the cause)
- Slide the upper saw blade cover onto the table,
- Connect the spigots of the upper and lower nozzle for sawdust extraction according to section 4.7..

5.8. Starting the saw at idle speed

To start the machine, do the steps below:

- Set the main switch to the "I" position - the light on the control panel will light up, indicating the number of revolutions of the main spindle,
- Select the type of operation of the machine:
 - "O" - operation without undercutting - the saw blade for undercutting should be lowered below the working surface of the table,
 - "I" - work with undercutting,
- Turn on the saw by pressing START bottom "green color". Check that:
- The direction of rotation of the saw blades is in accordance with the direction of the arrow located on the upper blade cover.

It is forbidden to make any changes to the electrical system of sawing machine



5.9. Switching off the saw

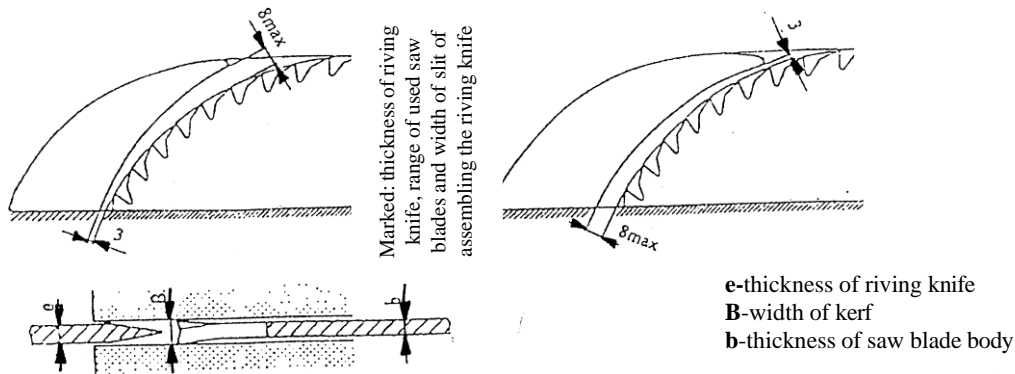
The control system is equipped with "STOP" buttons that turn off the saw's motors, which are also emergency stops and are unlocked by rotating. When you have finished working on the saw, turn off the main power switch.

6. OPERATION

6.1. Adjustment and setting

6.1.1. Riving knife adjustment

- Move the movable table forward to expose the riving knife,
- Loosen the nut securing the riving knife,
- Position the riving knife on the blade according to one of the following illustrations:



The thickness of the riving knife must be matched to the thickness of the saw blade and should be between the width of kerf and thickness of the saw blade body according to item 5.2.5 PN-EN1870-1

The thickness of normal saw blade	Thickness of riving knife	The thickness of the saw with carbide tipped acc. to category. FPN	Thickness of riving knife
1,6	1,8±0,1	2,7	2,2±0,1
2	2,4±0,1	3,2	2,6±0,1
2,5	2,9±0,1	3,6	3±0,1
3,2	3,8±0,1	4	3,5±0,1

6.1.2. Cutting head adjustment

You can also use the hand wheel on the left side of the control panel to adjust the saw blade (*standard option*):

- Adjustment to the right - lifting,
- Adjustment to the left - lowering.

The value of the height saw blade settings is indicated on the gravity indicator.

When cutting, the blade should protrude about 10 mm above the workpiece.

The adjustment can be performed when the main and scoring saw blades are stopped.



6.1.3. Adjusting the angular cut in the vertical plane

You can also use the hand wheel on the left side of the control panel to adjust the saw blade (*standard option*):

- Adjustment to the right - tilting,
- Adjustment to the left – back to right angle.

The value of the tilt saw blade settings is indicated on the gravity indicator.

At the time of sawing the saw blade can be set at angle in the range $0^{\circ} \div 45^{\circ}$.

The adjustment can be performed when the main and scoring saw blades are stopped.



6.1.4. Setting the width of sawing at the longitudinal ruler

- Unlock the eccentric clamp by handle (1)
- Move the longitudinal ruler together with the longitudinal guide, while reading the corresponding dimension on the scale, to make it easier to read use a magnifying glass (standard equipment) or an electronic reader (2) (optional).
- Lock the handle (1)

6.1.5. Setting the angle sawing on auxiliary table

(a) mounting the table to the saw machine

- The table is attached to the movable table with an eccentric clamp and handle lever (1), and the other end is mounted on the swivel bracket (2).

(b) Move the transverse ruler (4)

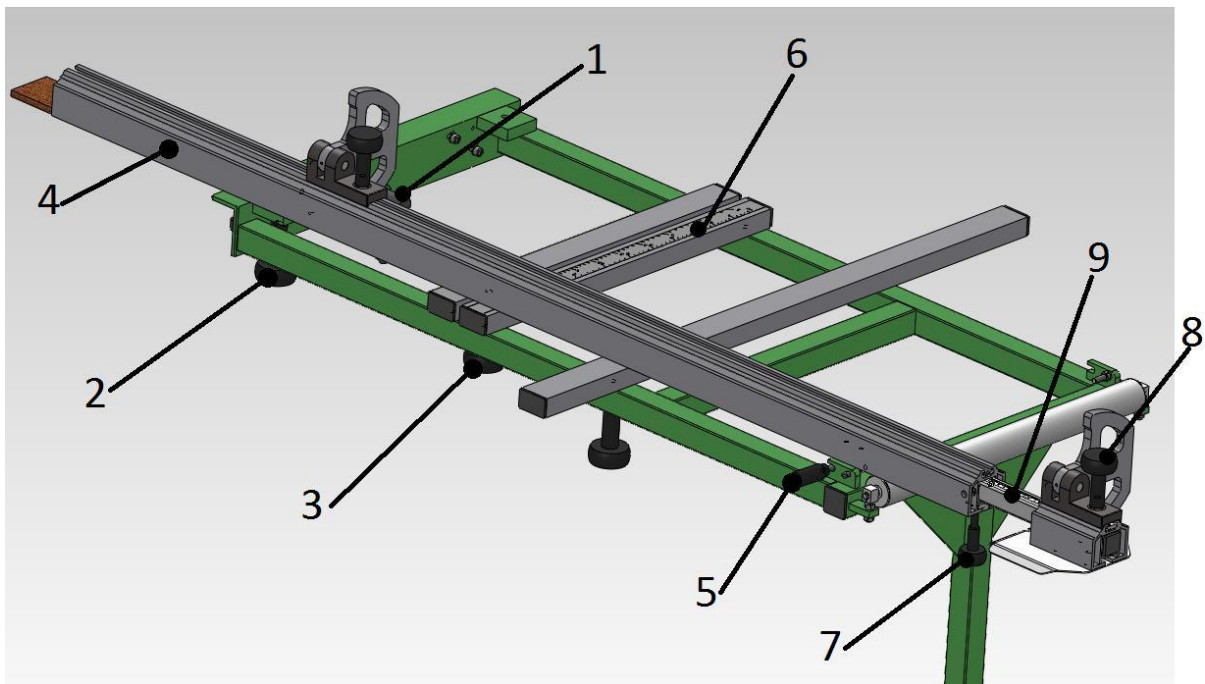
- unlock the handles (2), (3), (5),
- move the ruler, reading the angle on the scale (6),
- lock the ruler with handles (2), (3),

c) unlock the telescopic extension (9)

- unlock the handle (7),
- move the telescopic extension (9),
- lock the telescopic extension with the handle (7),

d) move the limiter,

- unlock the handle (8),
- move the limiter,
- lock the handle (8).



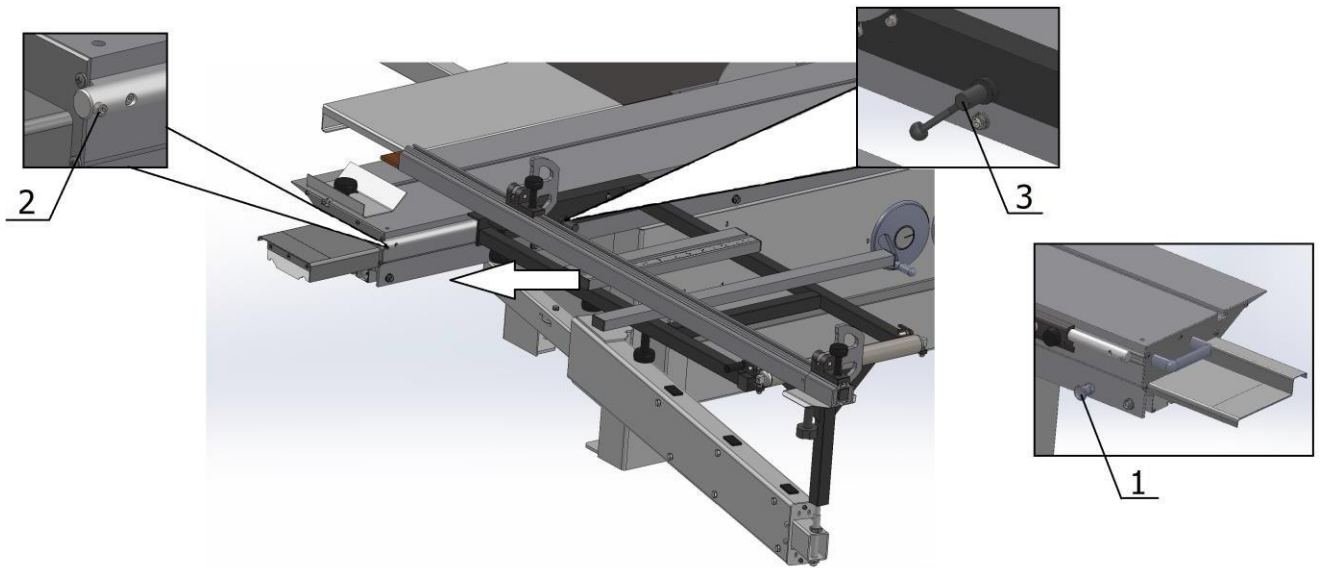
The transverse ruler (4) can be mounted on the back or front of the auxiliary table frame, making it possible to change the cutting length.



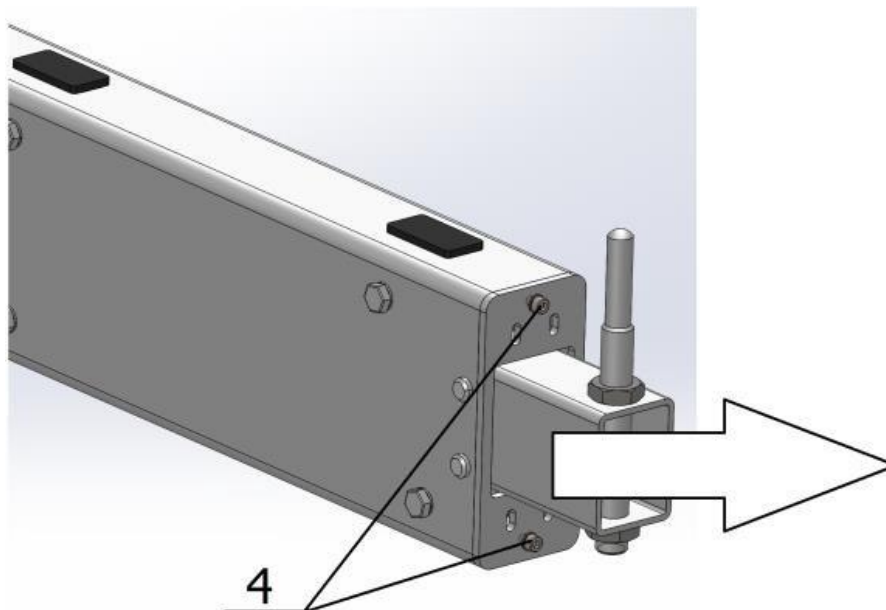
6.1.6. Cleaning the drawbar of the swing support

In case of uneven operation of the movable table, vibrations on the movable table or auxiliary table, clean the drawbar of the swing support. To do so, follow the procedure:

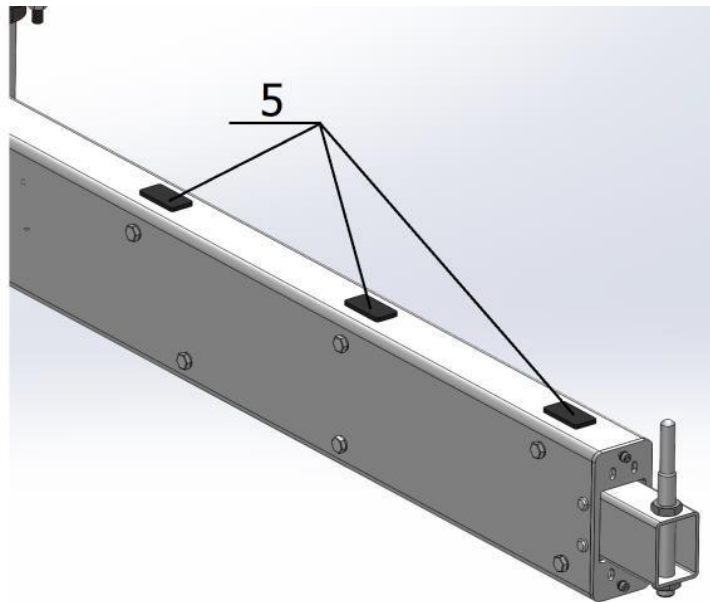
- lock the movable table with the pin (1),
- unscrew the hex screw (2) at the end of the guide shaft of the auxiliary table,
- loosen the auxiliary table to make it easier to move the table (3),
- remove the auxiliary table from the machine,



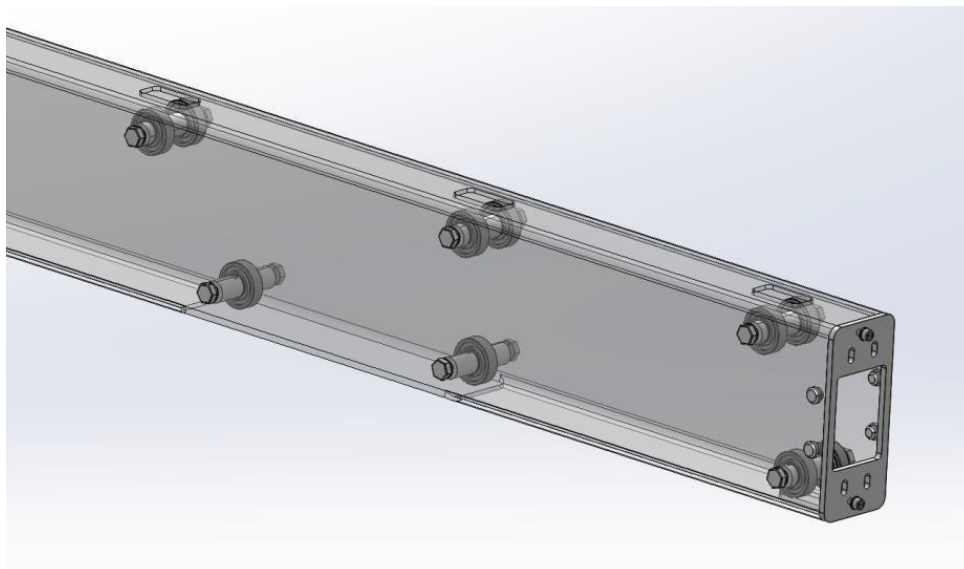
- unscrew the two allen screws M6 (4) and then pull out the drawbar of the bracket



- the surface of the drawbar should be cleaned, for example, washed with extraction gasoline
- remove the caps (5) from the bracket , and then clean the surfaces of the drawbar guide rollers.



- guide rollers are located at the top and bottom of the bracket.



- after cleaning the drawbar, assemble the swing bracket in reverse order, and then attach the auxiliary table

6.1.7. Tensioning and setting-changing of V-belts

- Lower the spindle assembly to the bottom position,
- Tilt the spindle assembly at an angle of about 20°,
- Loosen the belt with the lever,
- Replace the belt
- Move the lever to the upper position
- Raise the spindle assembly to the desired position

6.1.8. Scoring adjustment

Adjustment of the movement of the undercutting blade in the vertical and horizontal directions is done by rollers and.

6.2. Work safety information

Before starting the work on the saw, check that:

- the riving knife is properly installed,

It is forbidden to work on the saw without a properly installed riving knife. The top guard must completely cover the part of the blade protruding above the surface of the workpiece.

It is forbidden to work with a blade that:

- It is dull and/or has broken teeth,
- Has scratches and/or altered shape and is contaminated,
- Does not meet the size recommended by the manufacturer,
- Does not meet the requirements of PN-EN-847-1,

Besides, it is forbidden:

- Welding or soldering the circular saw,
- Braking of the blade by the side pressure when the drive is switched off,
- Keeping your hands close to the circular saw,
- Opening the guards before the saw stops and working with the covers and doors open,
- Processing of material containing foreign solids,

Apart from the above it is necessary:

- The fence of the longitudinal scale should be set so that the cut material is not jammed during cutting
- Chips can be removed from the table with a long-handled brush and only when the saw is switched off.
- When cutting in the hazardous area, the saw must not move the material by hand, but by using a pusher, the distance of which must not be less than the distance between the edge of the blade and the edge of the table,
- Pay attention to the rotation of the blade after stopping the main blade,
- Attach the tool to the end of the spindle so that the direction of the tooth is in line with the direction of rotation of the spindle,
- Working movement of the movable table carried out only by the handle (item 2.10).
- Before starting work, check the technical condition of the saw, the tightness of the tools and guards, and if you find a malfunction of the saw, it should be disconnected from the power supply and protected from switching on and eliminate the fault.
- Before leaving the workstation, the saw must be switched off and wait until the cutting blade is completely stopped, and turn off the main switch and secure it from being switched on again, for

example, with a padlock.

- Saw must be stopped and protected from accidental activation when performing repair and adjustment and maintenance of the machine,
- Wear close-fitting protective clothing,
- Do not proceed to work after consuming intoxicants, such as alcohol..

6.3. Identification of failure

Defects and deficiencies	Cause	Removal of defects
el. motor: lack of starting torque, characteristic of the engine hum direction of rotation is wrong	one phase missing improperly combined of phase	check the electrical system (voltage in individual phases) to interchange two phases in the place of the connecting power supply
the sawing machine cannot be started	no electric supply	check the electrical system
the main saw blade is working and not working scoring	damaged timer relay - K1T or contactor - Q4	replace damaged items
difficulties in sawing the material in a straight line	incorrectly adjusted rip fence in the direction of the workpiece travel	adjust the rip fence in parallel or slightly diverging in relation to the saw blade by adjusting the nuts on the bolts fixing the shaft of fence
During sawing there is excessive resistance of the moved material and there are streaks on the sawn surfaces	Blunt saw blade	Sharpen the saw blade

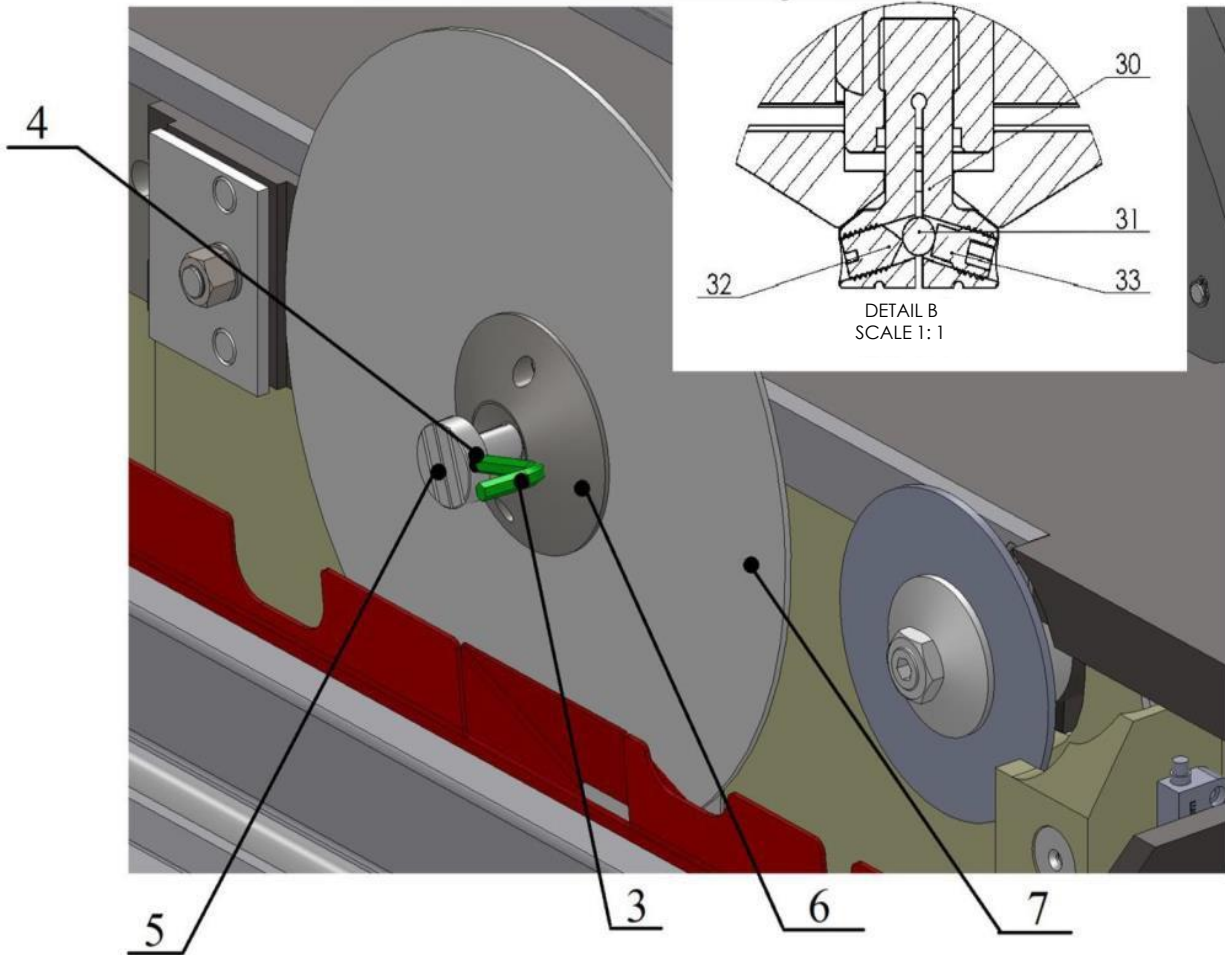
6.4. Changing tools

Tool change with Pro-lock clamping system (optional).

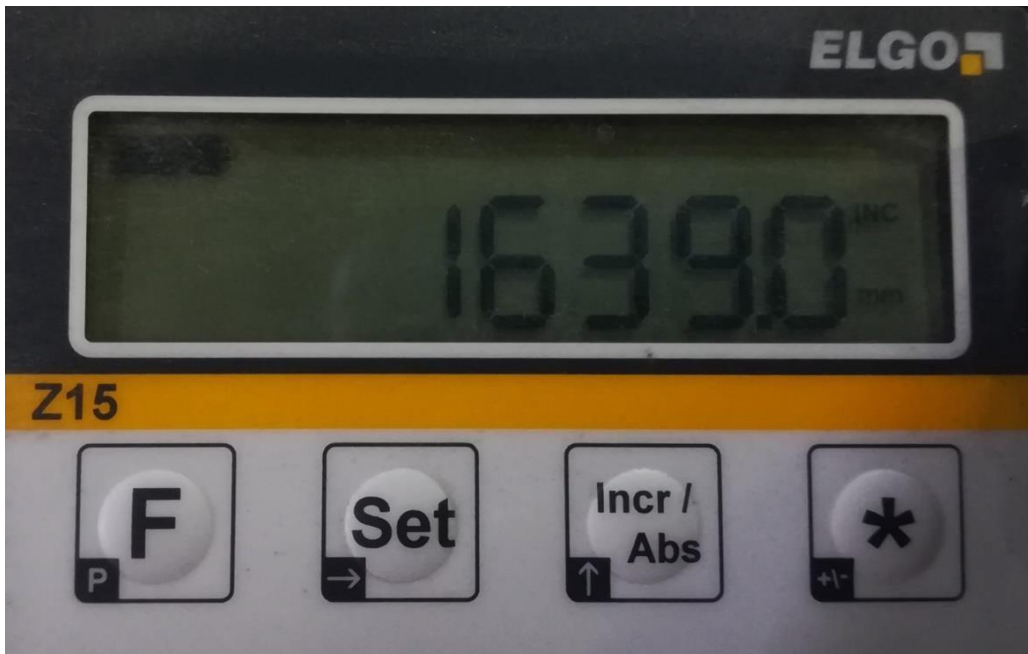
Before changing the tools, turn off the machine with the main switch. Use the wrenches supplied with the saw by REMA S.A. Be careful not to cut yourself. It is recommended to use gloves. The scoring unit should be replaced as below.

Replacement of the main spindle saw blade:

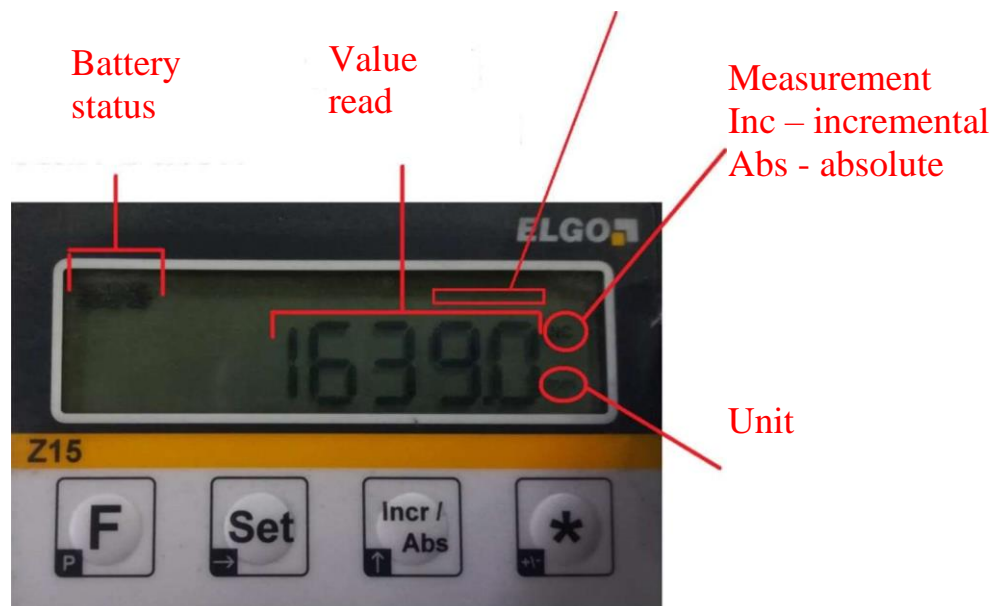
- move the movable table (1) backward to the outer position,
- open the cover of the suction nozzle (2),
- Loosen the pressure bolt (4) with an allen key (3) (there are two pressure bolts on the bolt, one of which is protected by paint - this pressure bolt cannot be loosened/unscrewed) in the bolt (5) and loosen the mounting bolt of the mounting flange and saw blade,
- remove the mounting flange (6) with the screw and saw blade (7) from the spindle,
- insert the new disc (paying attention to the direction of tilt and rotation of the teeth), insert the clamping collar and tighten the screw as far as it will go, tighten the clamping screw in the screw.



6.5 ELGO Z-15 INDICATOR – basic instruction manual





Active components
programs




6.5.1 Entering parameters

- Hold the button for at least 3 seconds. After this time, the display will show the first parameter which is P01.
- To enter a parameter, press the “F” button again (press once). Then the display will show the value of the parameter in question.
- Use the button to select the place where you want to change the value. The current selected place is marked by blinking the given value.

- d) Use the  button to change the currently selected value of a parameter.
- e) To move to the next parameter, press the “F” button again. Use the buttons described in a, b, c, d to change the value of the parameter.
- f) After changes to return to the main screen, hold down the “F” button for at least 3 seconds until the main screen appears.

*Button  - this is the button for changing the measurement. We have a choice of inc – incremental measurement and abs – absolute measurement. Absolute measurement is characterized by the fact that the reader reads values from a predetermined base (in parameter P09). If we change to incremental measurement, the reader starts counting by how much we move the reader from place where we pressed the button (we changed from absolute reading to incremental). When we change the measurement to incremental then the display will show us only zeros when the measurement is activated.

Button  - selection of component program. There are 3 programs to choose from in the reader. We active them with the “” button. We can also work with the reader without an active program. Whether the program is active and which one, is shown by the lighting of the digit in the upper right corner. If the digit 1 lights up, we have active program 1, which is assigned under program P10. Constituent program 2 is assigned under program P11 and constituent program 3 is assigned under program P12. If no digit is active in the upper right corner of the reader then no program is active.

If you enter the value 000050.0 in the value of program P10 (where the factory value is 000000.0) and activate this program with the “*” button as component program 1. Then the value 50.0 will be added to the current value on the reader. This rule applies to component program 2 and 3 under programs P11 and P12.

6.5.2 Parameter description

a) P01 – change of counting direction

E.g. If by moving the ELGO Z15 indicator to the right, the value on the display is subtracted by the value of the reader’s shift then the current value should be changed in this parameter (P01) (if the value p\of P01 is 0 then it should be changed to 1).

b) P02 - setting the unit of indication

- 0 - setting the indication in [mm],
- 1 - setting the display in [inch (inch)],
- 3 - setting the indication in [°],
- 4 - without showing the unit.

c) P03 - setting the indication of the number of decimal places

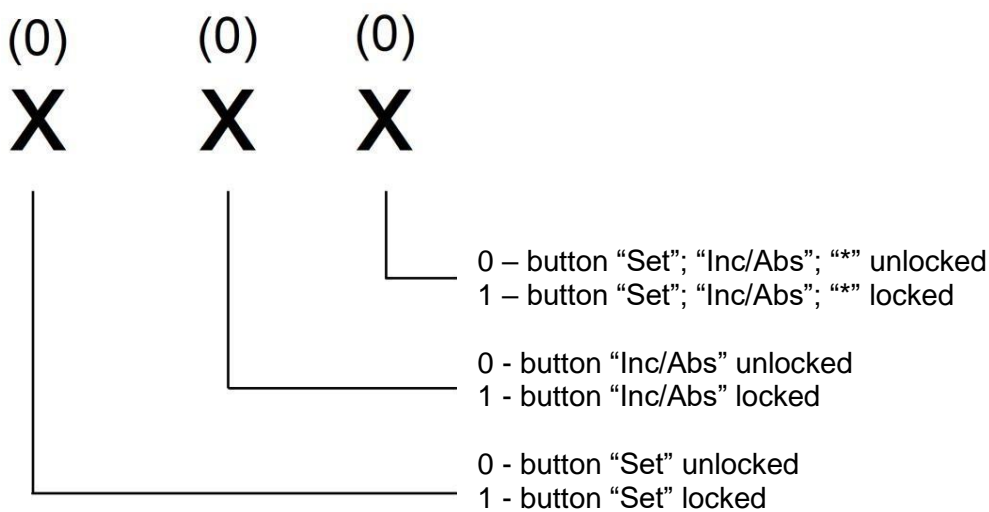
- 0 - no decimal place,
- 1 - with one decimal place,

- 2 - with two decimal places,
- 3 - with three decimal places,
- 4 - with four decimal places,

d) P04 - none - in other readers this is the time the display shuts down

e) P05 - button lock

To lock the buttons, enter parameter P05 and enter the individual values depending on which button you want to lock.



f) P06 - none

g) P07 - set the same value in this parameter as in P03.

h) P08 - coefficient. Factory value.

Factory value: 1.0000

i) P09 - entering the value from which the measurement is to be performed.

Base value.

- Position the reader at the point from which the measurement is to be taken.
- Then move to the value of parameter P09.
- Enter the desired value, e.g. 20 using the buttons described in step 1.
- After entering the appropriate value, return to the main screen by holding the "F" button for at least 3 seconds.
- When you return to the main screen, the field where the value is displayed will still show the value from the previous baseline.
- To activate the entered value as a base, press and hold the "F" and "Set" keys simultaneously. If the value did not update means that the operator did not press the

mentioned keys at the same time. In this case, it is possible to go to the programming window instead of updating the parameters. In this case, press the "F" button for 3 seconds to exit to the main window of the reader.

- When pressed correctly, the value entered in parameter P09 will appear on the screen.

j) The remaining parameters are set at the factory.

- P10 - 000000.0 - component value; - activated by the " * " button.
- P11 - 000000.0 - component value; - activated by the " * " button.
- P12 - 000000.0 - component value; - activated by the " * " button.
- P13 (configuration of component values) - 3
 - 0 - inactive component value
 - 1 - component value 1 active
 - 2 - component value 1 and 2 active
 - 3 - component value 1, 2 and 3 active
- P90 (no function) - 0
- P99 (company designation) - 2.50

6.5.3 Calibration of the displayed value on the electronic reader (ELGO Z-15)

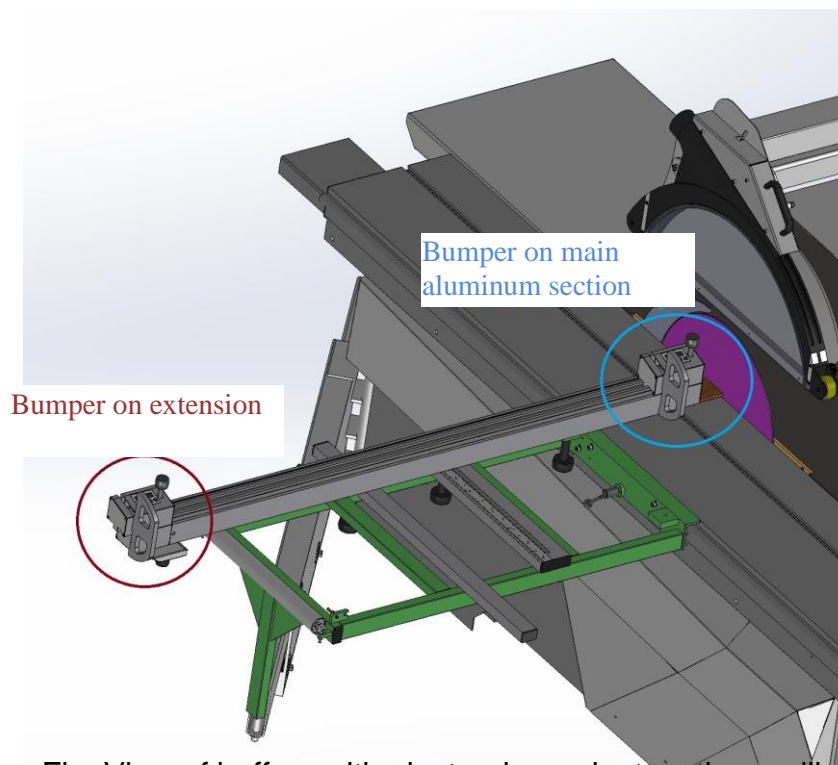


Fig. View of buffers with electronic readout on the auxiliary table.

- a) Adjustment of value displayed on electronic reader on main aluminum section (bumper 1).
- Loosen the locking handle of the bumper bracket.
 - Slide the bumper to the end of the aluminum section.
 - Clamp the bumper support with the handle. With a measuring instrument (such as a meter),

measure the distance of the saw from the bumper and record it.

- Go to the reader programming mode, ie.:
 - Hold down the “F” and “Set” buttons simultaneously for at least 3 seconds. After this time, the display will show the first parameter which is P01.
 - Go to parameter P09 (base value) by pressing the button “F”. If P09 parameter appears on the display, press the “F” button again to move to the value of P09 parameter.
 - If the display screen currently shows the value of parameter P09, you can proceed to enter the value from which the electronic reader is to count. To do this, select the place where you will change the digit. The “Set” button is used to select the place and the “Incr/Abs” button is used to change the digit. After entering the value that you have previously measured with a measuring instrument (meter), exit the programming windows by pressing the “F” button alone for 3 seconds.
 - After exiting programming, you still need to update the value displayed on the reader. For this process, use the “F” and “Set” buttons, which must be pressed simultaneously. When the buttons are pressed correctly, the count value should be the same as we entered during programming.
 - After updating the dimension, cut the material by sliding it to the bumper.
 - After cutting, measure the cut material and compare the cut value with the value entered on the reader. If they agree then the programming can be considered complete. In this case, you can loose the buffer and adjust it to other values. If the cut value does not agree, return to re-enter the base value (without moving the buffer). Go through all the notes in this section from beginning.
 - This type of programming also applies to the electronic bumper on the extension. The only difference is that the electronic reader on the aluminum section is pushed against the main aluminum section. The rest of the programming points do not change.
 - Detailed descriptions of the various button functions are described in Sections 6.5.1 and 6.5.2.

6.5.4 Factory settings of programming parameters

P01 – 1
P02 – 0
P03 – 1
P05 - 000
P07 – 1
P08 – 1.0000
P09 – numerical (base) value of reader count (000211.0)
P10 – 100000.0
P11 – 000000.0
P12 – 000000.0
P13 – 0
P90 – 0
P99 – 2.5

7. MAINTENANCE AND PRESERVATION IN WORKING CONDITION

7.1. Maintenance and inspection

To ensure the long life of the saw, it should be properly maintained according to the following basic rules:

- Clean the saw carefully every day after work.
- Use the saw in accordance with the requirements specified by the manufacturer and in accordance with applicable general regulations,
- The entire saw should be subjected to periodic technical inspections related to the maintenance of the complete machine tool,
- Even the smallest defect or damage to the saw machine should be removed as soon as it is noticed,
- Particular attention should be paid to the condition of the tool mounting parts,
- Saw machine intended for a long standstill after a thorough inspection should be thoroughly cleaned and preserved.

7.2. Lubrication instructions

Lubrication intervals given below are provided for 8 - hour working day on the sawing machine.

Point number of lubrication	Place of lubrication	The greasy type	Lubrication interval
1	The suspension of the main spindle body	Machine oil	Once a month
3, 4	Arches of spindle tilt		Every 8h by spreading on the surface of the guides
2, 5	The scoring		Once a week putting a several drop of oil

During lubrication of point number 5, tilt the main spindle to 45°.



7.3. Repair and overhaul cycles

Planned repairs and overhauls must be carried out according to the following cycle:

KPBPBPSBPBPK

Where:

P - interim review

B - current

renovation,

S - mean

repair,

K - general overhaul

The frequency of carrying out various types of repairs:

General overhaul	14000 man-hour
Mean renovation	7000 man-hour
Current renovation	2600 man-hour
Interim review	1300 man-hour

If you notice any abnormalities in the kinematic system of the machine, they must be removed immediately.

8. ENCLOSURES

8.1. List of ball bearings

The unit	Bearing type	Catalogue number	Dimension	Quantity
Spindle	Ball bearing	6206 2RS P66	Ø62/30x16	2
Lifting and tilting of spindle	Linear bearing	51105	Ø42/25x11	4
Spindle of scoring	Ball bearing	6004 2RS P66	Ø42/20x12	2
Auxiliary table	Ball bearing	6004 2RS	Ø42/20x12	6
Auxiliary table	Ball bearing	1206	Ø62/30x16	2
Moveable table (roll covered)	Ball bearing	093.44.34.000 REMA S.A.		10 version 200
Moveable table	Ball bearing	6004 2RS	Ø42/20x12	4
Moveable table	Needle bearing	NA4905 2RS	Ø42/25x17	2
Working table	Ball bearing	6000 2Z	Ø26/10x8	1
Top cover	Linear bearing	KH228 PP		4

8.2. List of belts

The unit	Belt type	Quantity
Main spindle	Multiple V-ribbed belts PK6 L-865	1
Scoring spindle	Multiple V-ribbed belts V4PJ L-864	1

8.3. List of electrical equipment, electrical scheme - appendix

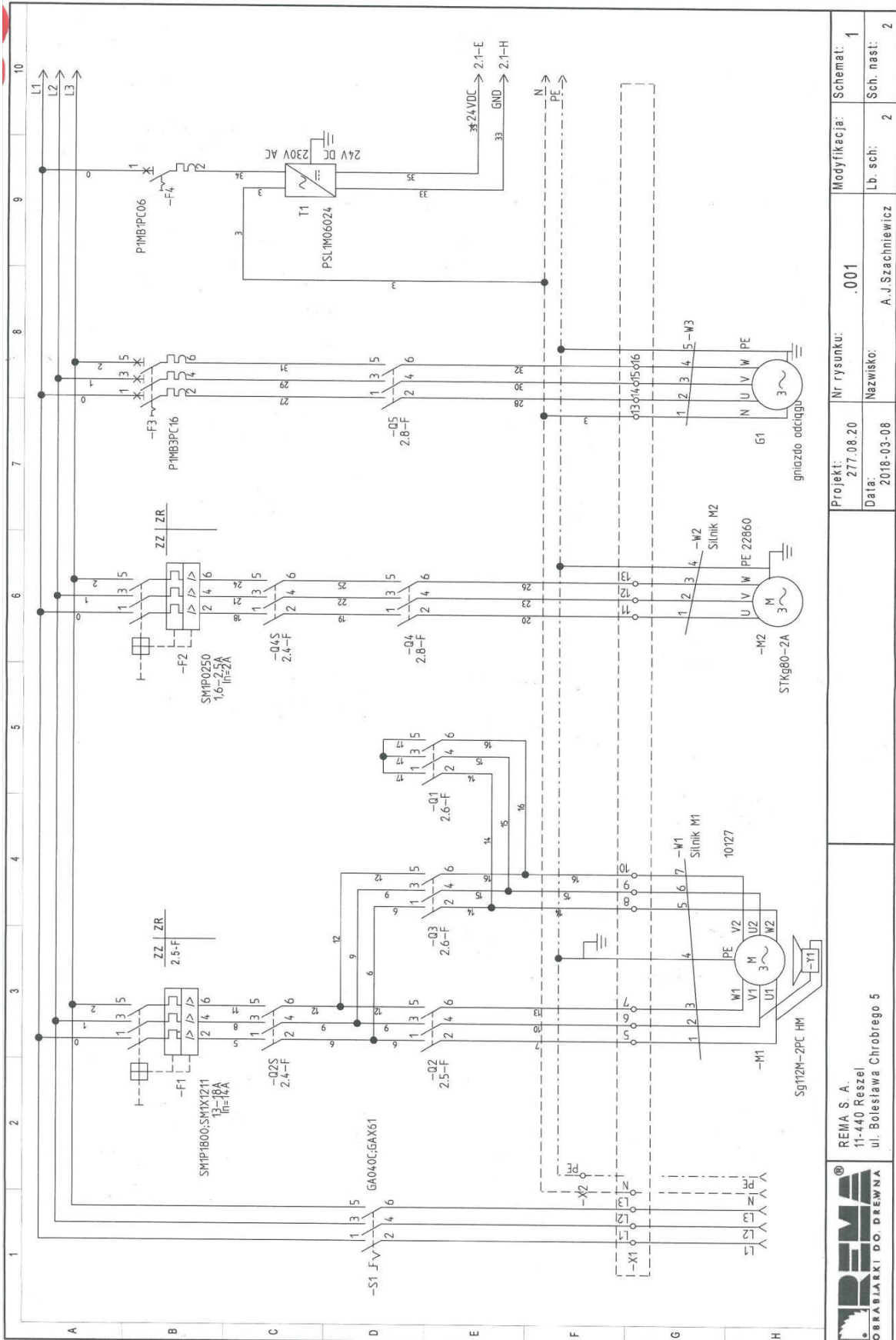
8.4. List of parts with drawings

List of parts with drawings is intended for users, technical staff and workshop, supplies and control units operating on the machine tool. The list of parts contains a list of all the parts included in the machine together with assembly drawings of individual units.

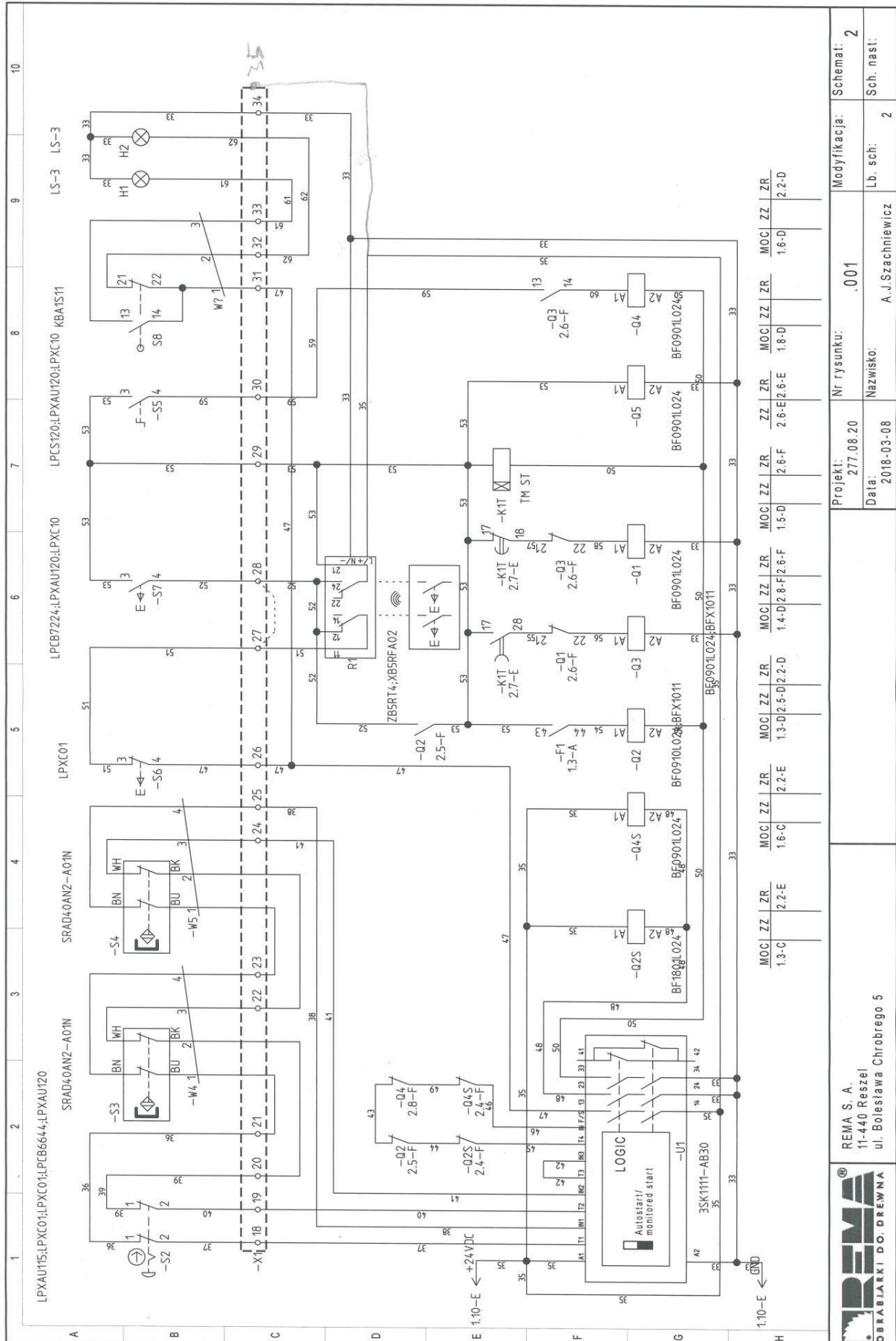
These lists are prepared in the form of tables. Parts included in the parts list can be made by mutual agreement between the manufacturer and the customer.

In order the user is required to provide:

- the type and serial number of the machine,
- the names and numbers of the parts according to the list,
- the number of necessary parts.

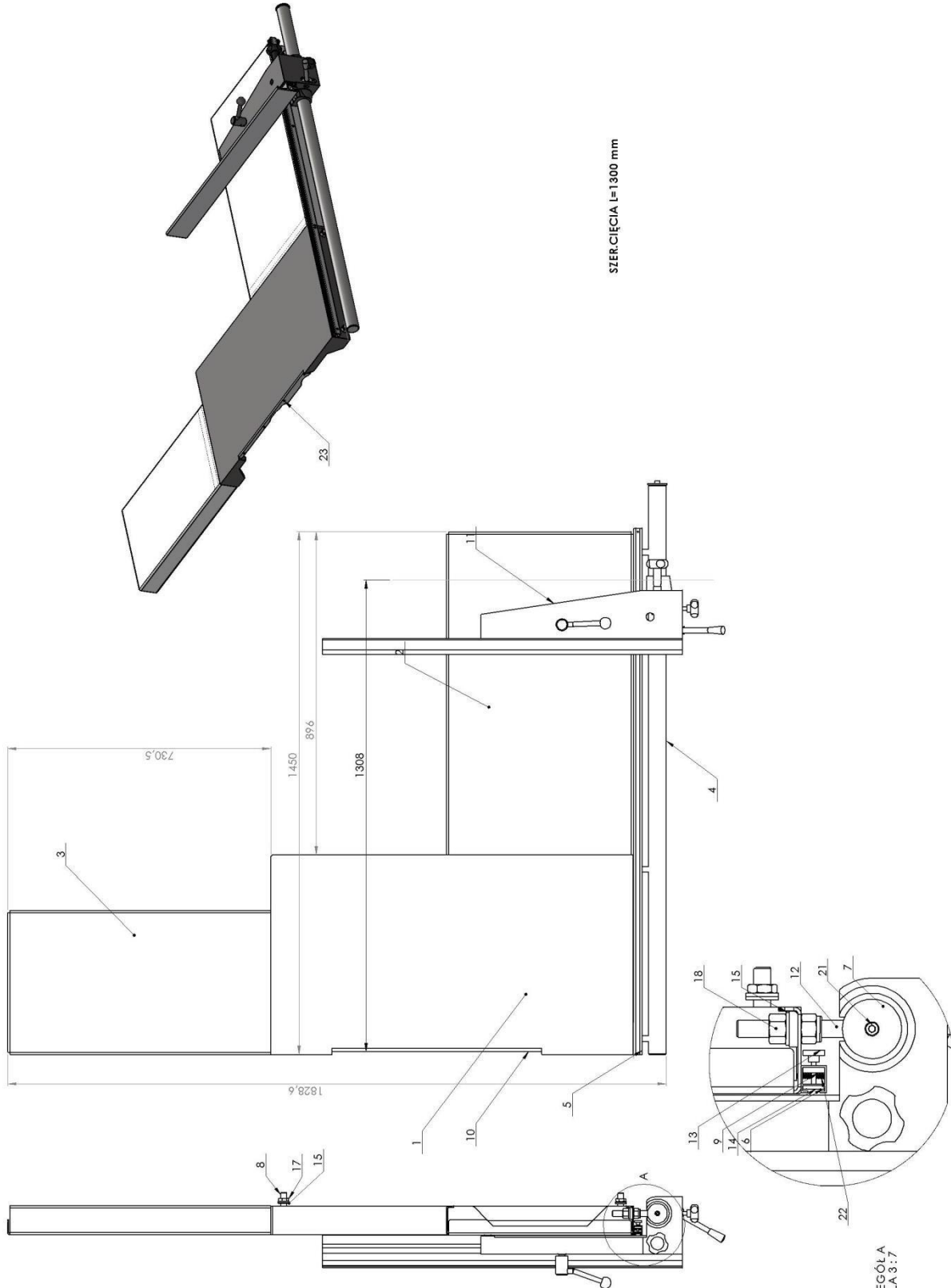


 REMA S. A. 11-440 Reszel ul. Bolesława Chrobrego 5 OBRABIARKI DO DREWNA	Projekt: 277.08.20 Data: 2018-03-08	Nr rysunku: .001 Nazwisko: A. Szachniewi/cz	Modyfikacja: Lb. sch: 2	Schemat: 1 Sch. nast: 2
	Sg112N-2PC HM 10127 Silnik M1 -W1 PE V2 U2 W2 -M1 -X2 -X1 -Q3 2,6-F -Q2 2,5-F -QZS 2,4-F SMIP1800:SMY1211 In=18A ZZ ZR 2,5-F -F1 SMIP0250 1,6 In=2,2A -Q4S 2,4-F -F2 ZZ ZR -Q4 2,8-F -Q5 2,8-F P1MB3PC16 -F3 P1MB1PC06 -F4 T1 PSI1M06024 24V DC 230V AC 24V 2,1-E 2,1-H GND N PE -M2 STKg80-2A Silnik M2 -W2 U V W PE 22860 G1 gniazdo odciqgu 0394506			



277.40.00.000A

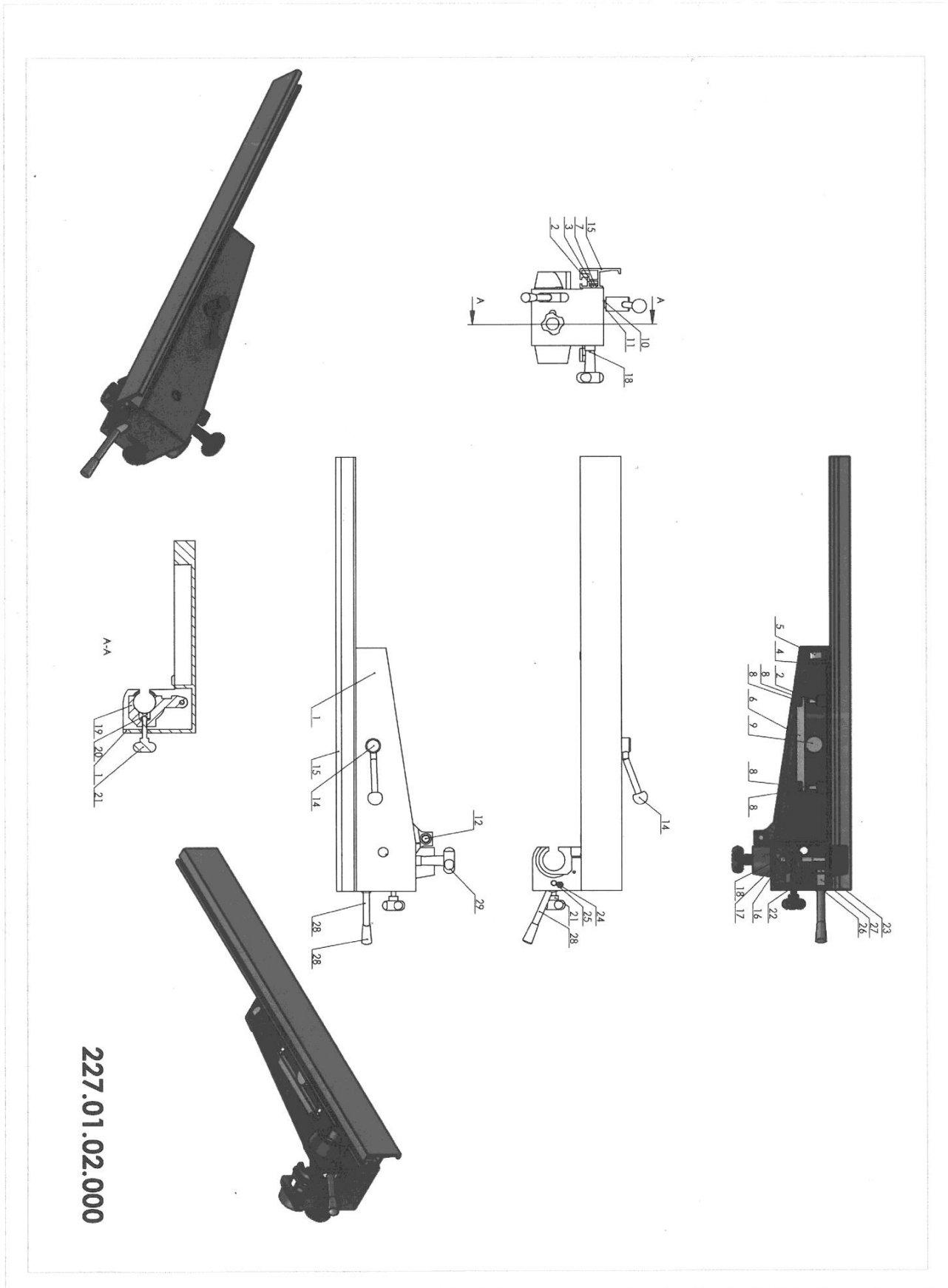
Nr. 277.40.00.000A



SZCIEGÓŁA
SKALA 3:7



Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.01.00.001	1		
2.	277.40.03.000	1		
3.	277.40.02.000	1		
4.	277.01.00.002	1		
5.	277.40.00.005	1		
6.	277.40.00.006	1		
7.	277.01.00.003	1		
8.	257.01.00.003	4		
9.	257.01.00.019	1		
10.	257.01.00.002 A	1		
11.	227.01.02.000	1		
12.	123.01.00.023	3		
13.	PN/M-82456	1	M4x25	
14.	SKALA PRAWA	1	L=1140	
15.	PN/M-82005	11	17,5	
16.	PN/M-82005	4	11	
17.	PN/M-82153	8	M16	
18.	PN/M-82144	3	M16	
19.	PN/M-82175	3	M16	
20.	PN/M-82105	4	M10 x 30	
21.	PN/M-82302	1	M8 x 16	
22.		3		
23.		4		

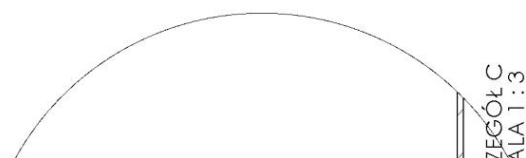


227.01.02.000

Nr. 227.01.02.000

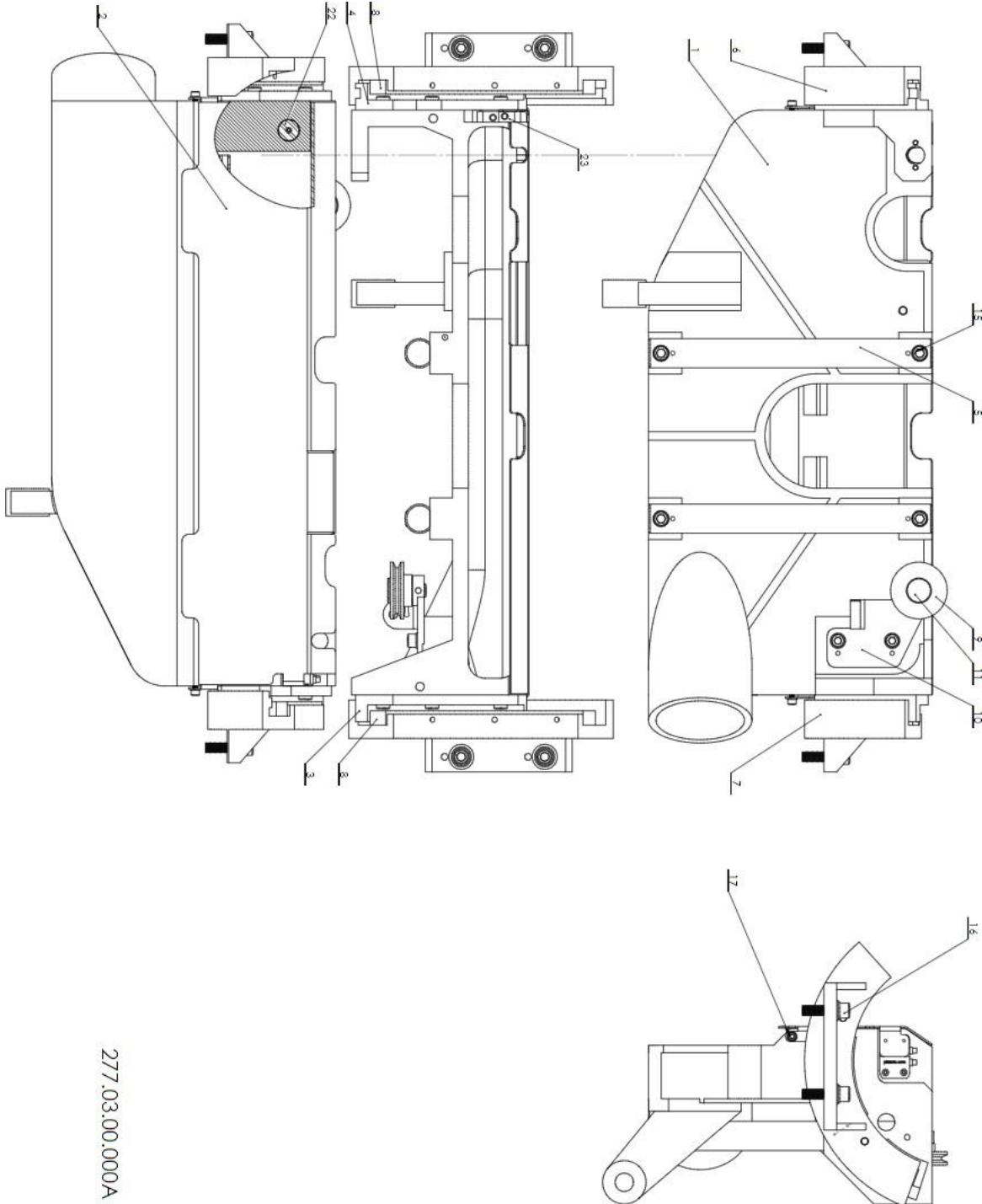
Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungen-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
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1.	227.40.00.001	1		
2.	123.01.20.000	1		
3.	123.01.00.057	2		
4.	093.01.00.034	1		
5.	227.01.00.041	1		
6.	128.01.00.018	1		
7.	123.01.00.019	1		
8.	123.01.00.056	1		
9.	123.01.00.009	1	L=1000	
10.	227.01.00.034	1		
11.	227.01.00.011	1		
12.	123.01.00.012	1		
13.	227.01.00.013	1		
14.	128.01.00.030	1		
15.	128.01.00.033	1		
16.	Oczko	1	Ø 16	
17.	Rękojeść	1	6.512.47	M10 H-145
18.	Pokrętło	1	G734-60T60	M10
19.	Rękojeść	1	6.512.47	M10 L-50
20.	Dźwignia przyłączeniowa	1	16H7	
21.	Zatrząsk kulowy	1	GN 615-M8-K	
22.	PN/M-85104	1	10	
23.	PN/M-82021	1	6n6x40	
24.	PN/M-82105	2	M5x16	
25.	PN/M-82153	1	M8	
26.	PN/M-82144	4	M8	
27.	PN/M-85111	1	Z 16x1	
28.	PN/M-85023	1	Ø 4x30	
29.	PN/M-85023	2	Ø 3x20	
30.	Klej Loctite 243			

277.02.00.000A

LEGÓŁC
ALA T:3



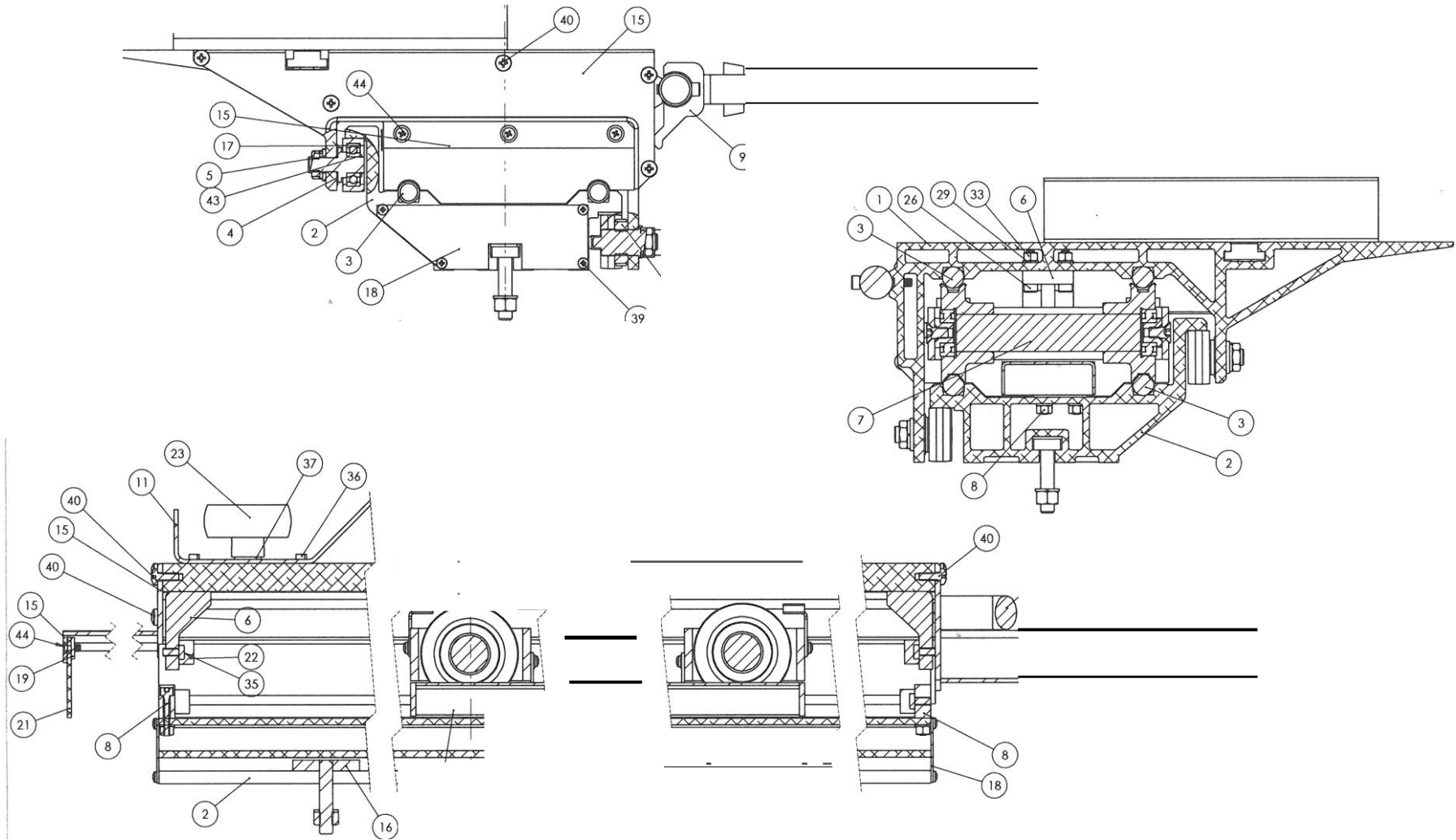
Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.02.01.000B	1		
2.	257.02.00.002	1		
3.	257.02.14.000	1		
4.	257.02.00.005	2		
5.	6.0151.04006	2		
6.	PN/M-82209	8	M6 x 25	
7.	PN/M-82008	16	6	
8.	PN/M-82144	8	M6	
9.	PN/M-82302	4	M6 x 16	
10.	PN/M-82302	4	M6 x 10	
11.	241300-2504.01	1	C-30	
12.		1		
13.	1115 297 068	2	120X80	
14.	278.02.00.003	1		
15.	278.02.00.004	1		



277.03.00.000A



Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.03.00.001A	1		
2.	258.03.01.000	1		
3.	257.03.00.002	1		
4.	257.03.00.003	1		
5.	257.03.00.012	2		
6.	277.03.00.002	1		
7.	277.03.00.003	1		
8.	257.03.00.006	2		
9.	257.03.00.010	1		
10.	174.03.00.022	1		
11.	128.03.00.012	1		
12.	PN/M-82302	6	M10x25	
13.	PN/M-82302	4	M10x20	
14.	PN/M-82302	2	M10x30	
15.	PN/M-82302	4	M12x35	
16.	PN/M-82302	4	M12x45	
17.	PN/M-82302	2	M6x10	
18.	PN/M-82005	4	13,5	
19.	PN/M-82008	4	Z12,2	
20.	PN/M-82008	2	10	
21.	PN/M-82008	2	6	
22.	Magnes		25x3	



271.00.00.000

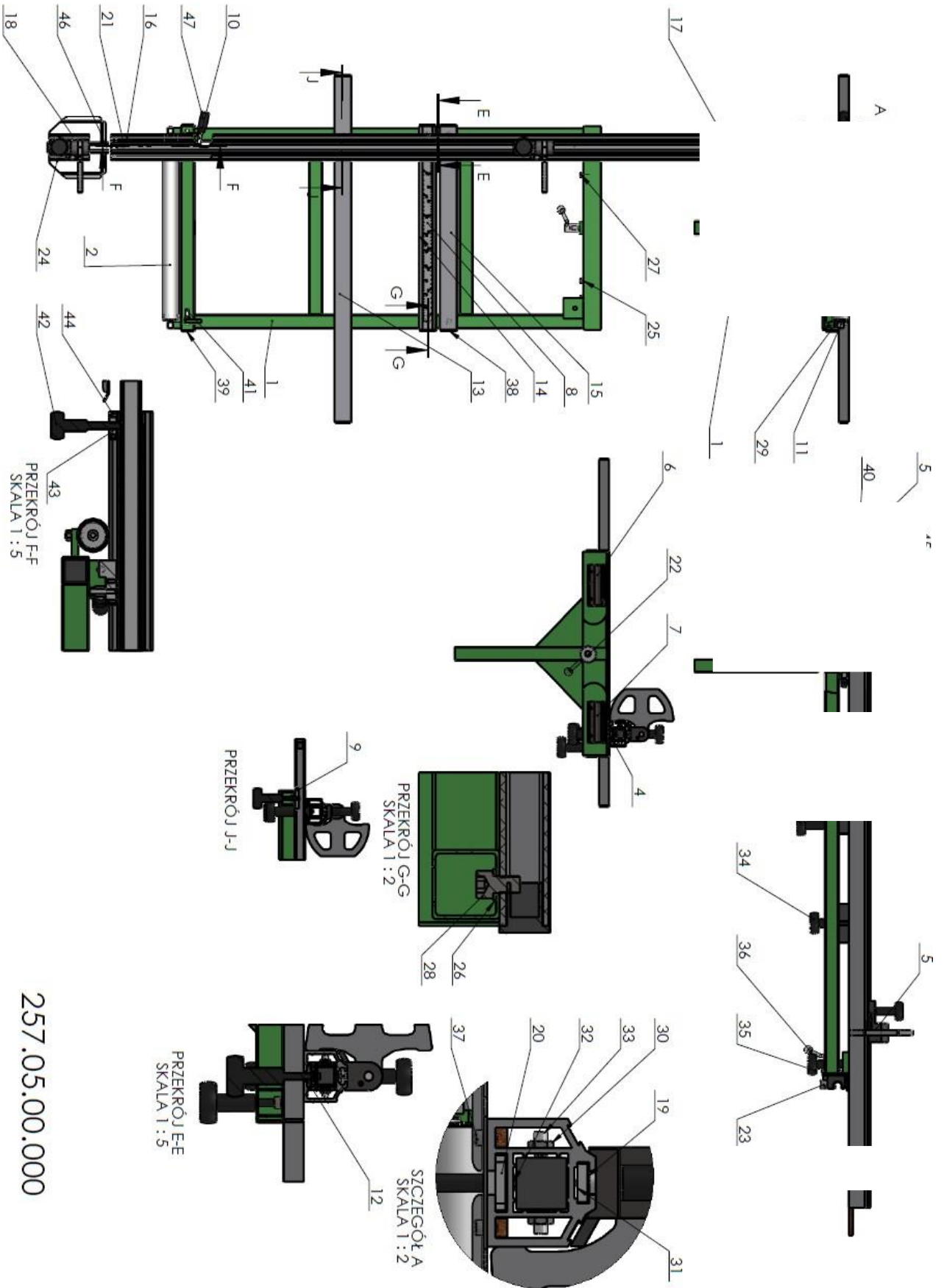


Nr.271.00.00.000

Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	227.04.00.001	1		Version of „340”
2.	271.04.00.002	1		
3.	195.24.00.009	4		
4.	123.24.00.012	12		
5.	227.04.00.013	12		
6.	227.04.00.015	2		
7.	227.04.17.000	1		
8.	227.04.18.000	2		
9.	195.24.19.000	1		
10.	195.24.00.022	1		
11.	227.04.00.023	1		
12.	195.24.00.026	1		
13.	227.04.00.027	1		
14.	227.04.29.000	1		
15.	227.04.33.000	1		
16.	174.24.34.000	4		
17.	093.44.34.000	12		
18.	227.04.00.040	2		
19.	227.04.00.042	1		
20.	6.0021.13208	1		
21.	227.04.00.043	1		
22.	Kapa	2	18x11 M6	
23.	Rękojeść	1	Ø60-M10x20	
24.	RUP-004	4	Ø10,5/Ø28x3	
25.	D-31 d2-M20x1,5	1		
26.	PN/M-82302	9	M6x30	
27.	PN/M-82302	4	M6x25	
28.	PN/M-82302	2	M6x20	
29.	PN/M-82302	2	M8x16	
30.	PN/M-82008	4	6	
31.	PN/M-82008	4	10	
32.	PN/M-82008	2	Z8,2	
33.	PN/M-82008	12	Z12,2	
34.	PN/M-82144	4	M6	
35.	PN/M-82144	4	M10	
36.	PN/M-82105	2	M6x12	
37.	PN/M-85023	2	Ø8x20	
38.	PN/M-82005	1	11	
39.	PN/M-82005	12	13,5	
40.	PN/M-82202	8	M4x10	
41.	PN/M-82202	10	M6x16	
42.	PN/M-82153	12	M12x1,25	



43.	PN/M-82153	1	M20	
44.	PN/M-85111	12	Z 12x1	
45.	PN/M-82207	3	M5x12	



257.05.00.000

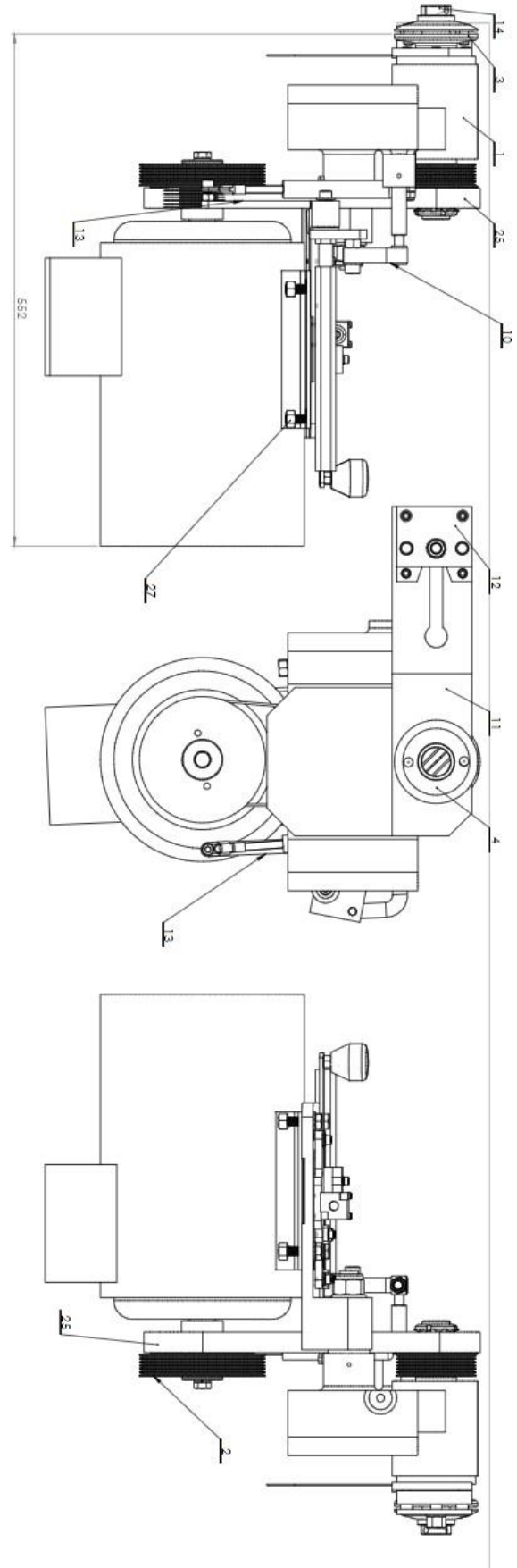
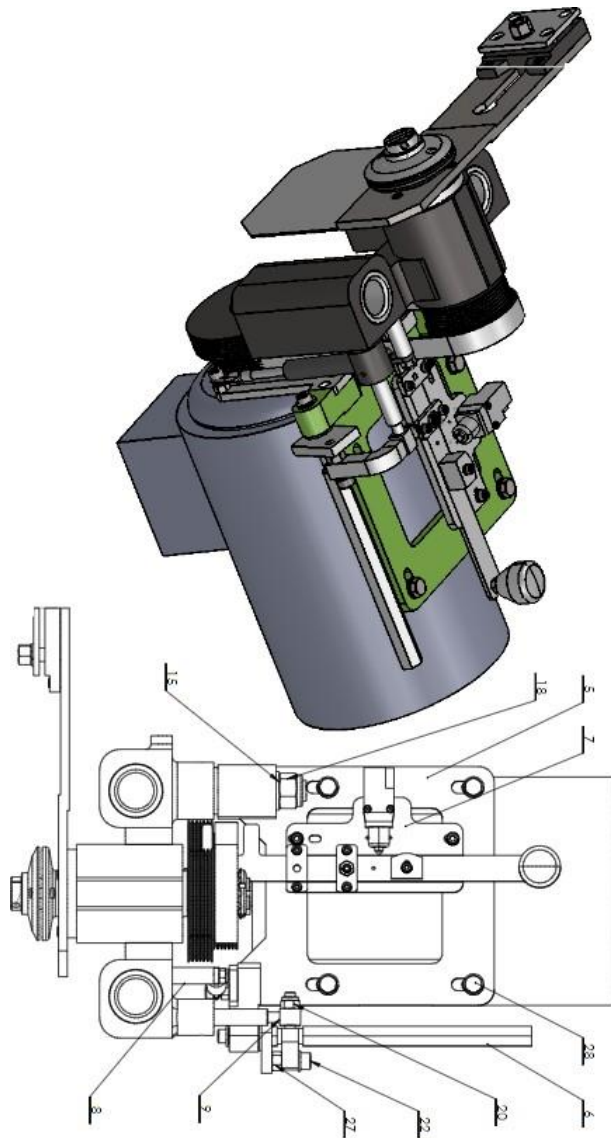


Nr 257.05.00.000

Poz.	Nr części lub normy	Ilość	Wymiar	Uwagi
Item.	Drawing or standard no.	Quantity	Dimension	Notes
Pos.	Zeichnungs- oder Norm-Nr.	Stück zahl	Ausmaß	Bemerkungen
1	2	3	4	5
1.	257.05.01.000	1		
2.	257.05.02.000	1		
3.	257.05.03.000	1		
4.	257.05.04.000	1		
5.	257.05.07.000	2		
6.	257.05.00.001	1		
7.	257.05.00.002	1		
8.	257.05.00.003	1		
9.	257.05.00.004	1		
10.	257.05.00.005	1		
11.	257.05.00.006	2		
12.	257.05.00.008	1		
13.	257.05.00.009	1		
14.	257.05.00.010	1		
15.	257.05.00.011	1		
16.	257.05.00.012	1		
17.	257.05.00.014	1		
18.	257.05.00.015	1		
19.	257.05.00.016	1		
20.	257.05.00.017	1		
21.	257.05.00.018	1		
22.	257.05.00.019	1		
23.	257.05.00.020	1		
24.	257.05.00.021	1		
25.	PN/M-82008	4	Z8,2	
26.	PN/M-82008	4	10	
27.	PN/M-82302	4	M8x20	
28.	PN/M-82302	4	M10x16	
29.	PN/M-82144	6	M8	
30.	PN/M-82153	2	M8	
31.	PN/M-82315	1	M6x8	
32.	PN/M-82315	1	M8x12	



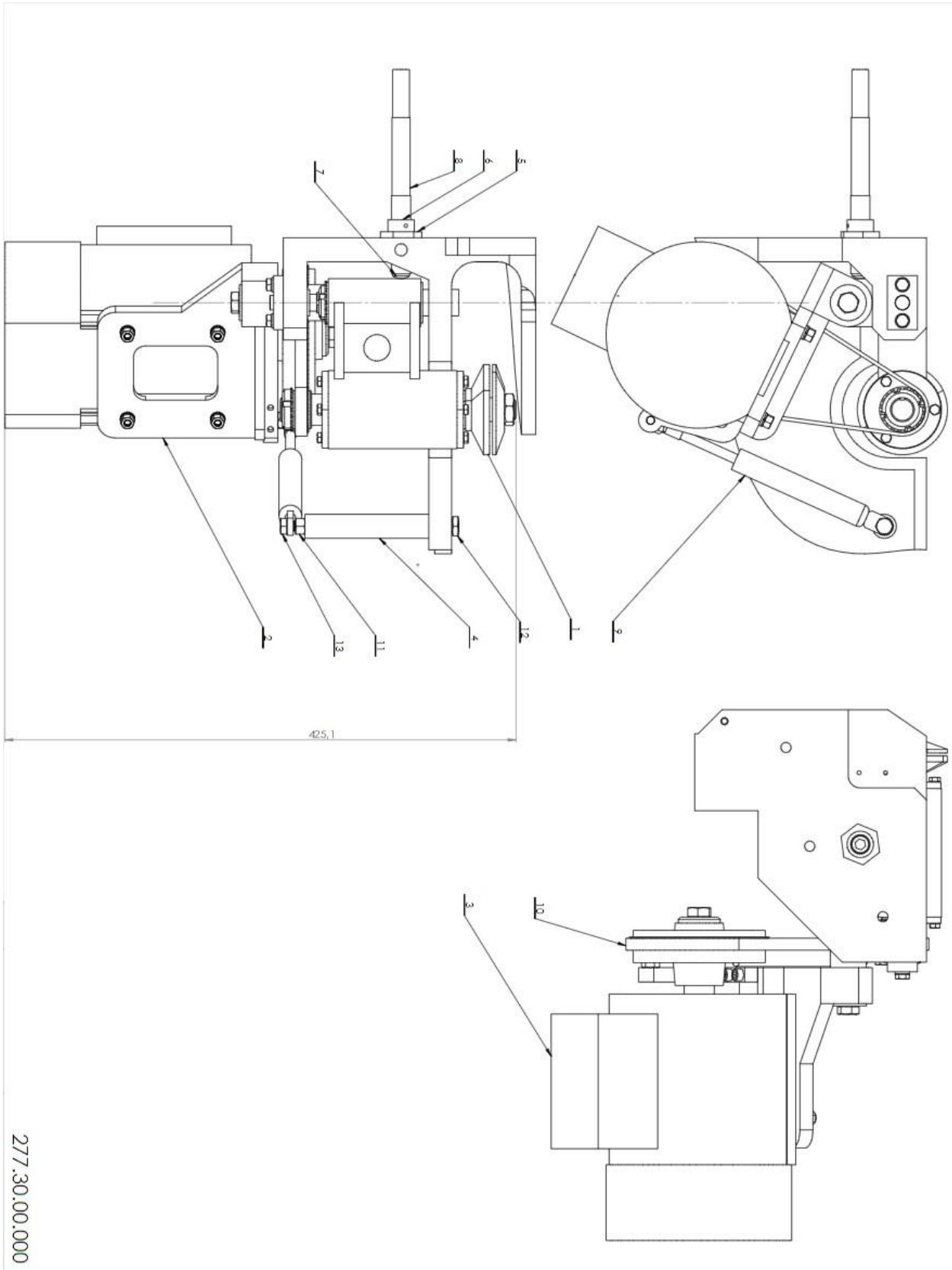
33.	1.0012.080014	2	M8 L=14	
34.	HANDLE	2	G735-60T60M10	
35.	HANDLE	1	G734-60T80M10	
36.	SWITCH LEVER	1	10H7K0176.110	
37.	PN/M-82302	4	M5x8	
38.	COVER CAP	6	50x30	
39.	COVER CAP	2	40x40	
40.	COVER CAP	1	30x30	
41.	PIN	2	M8x45	
42.	HANDLE	1	6-735-60T60M10	L=35
43.	257.05.00.027	1		
44.	DIN 915	2	M6x12	
45.	SCALE LEFT	1		
46.	SCALE RIGHT	1		
47.	HANDLE	1	M8 6.0121.06.008	



277.16.00.000C



Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.06.01.000C	1		
2.	277.16.03.000A	1		
3.	277.06.05.000	1		
4.	277.06.04.001A	1		
5.	277.16.00.009	1		
6.	277.16.05.000	1		
7.	277.26.00.000A	1		
8.	277.16.00.010	1		
9.	257.06.00.001	1		
10.	257.06.00.002	1		
11.	257.06.05.000	1		
12.	257.06.08.000	1		
13.	267.16.00.002	1		
14.	284.07.00.030	1		
15.	PN/M-82005	1	22	
16.	PN/M-82005	6	11	
17.	PN/M-82005	1	15,5	
18.	PN/M-82175	1	M20	
19.	PN/M-82175	1	M8	
20.	PN/M-82175	1	M10	
21.	PN/M-82302	3	M6x16	
22.	PN/M-82302	1	M10x35	
23.	PN/M-82302	2	M8x12	
24.	SPRĘŻYNA GAZOWA F130N	1		
25.	PASEK	1	PK6 L=820	
26.	PN/M-82144	1	M8	
27.	PN/M-82144	5	M10	
28.	PN/M-82105	4	M10 x 30	
29.	M-0639110005	1	6,5mm	
30.	M-067000203	1		

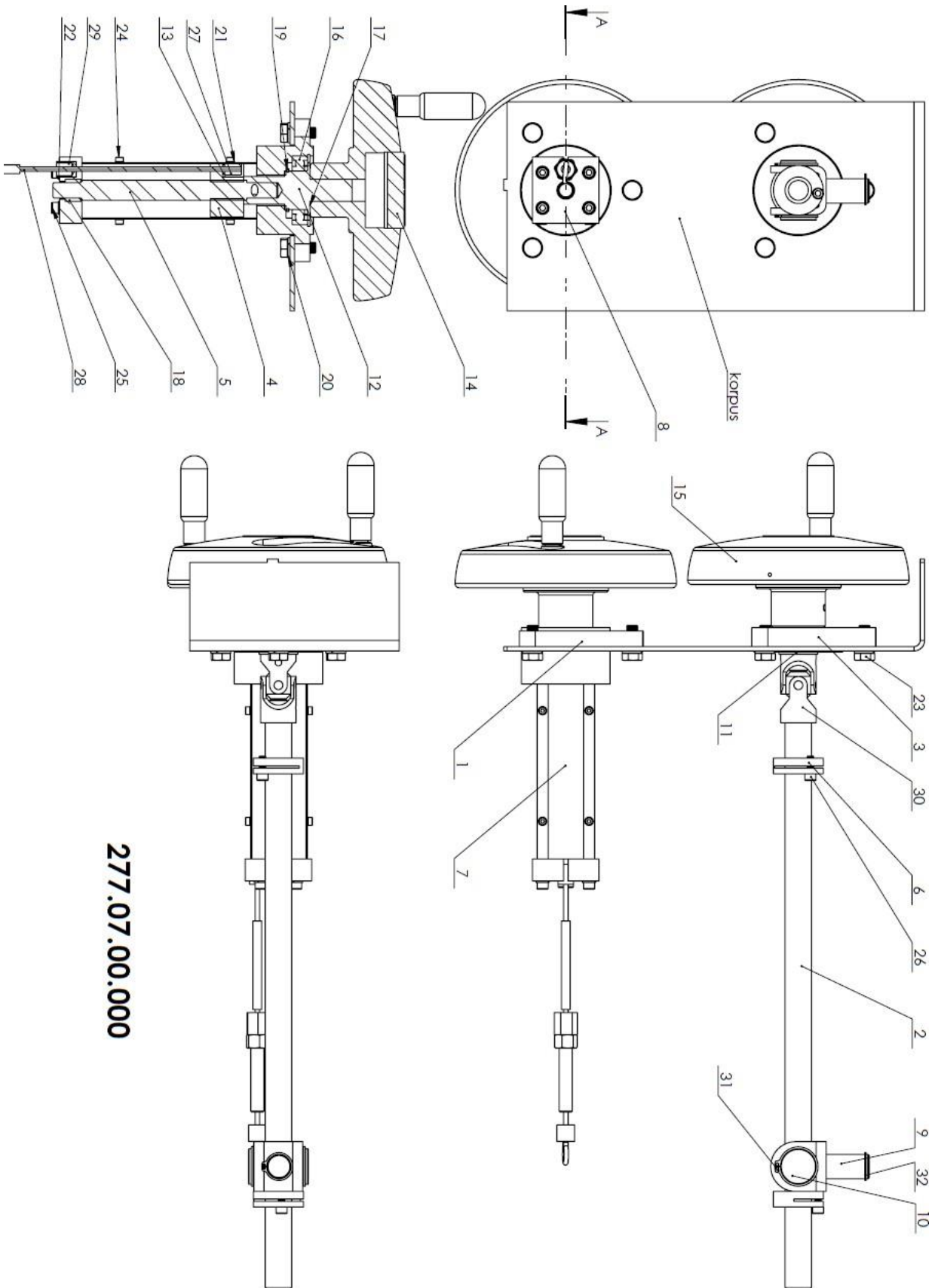


277.30.00.000



Nr. 277.30.00.000

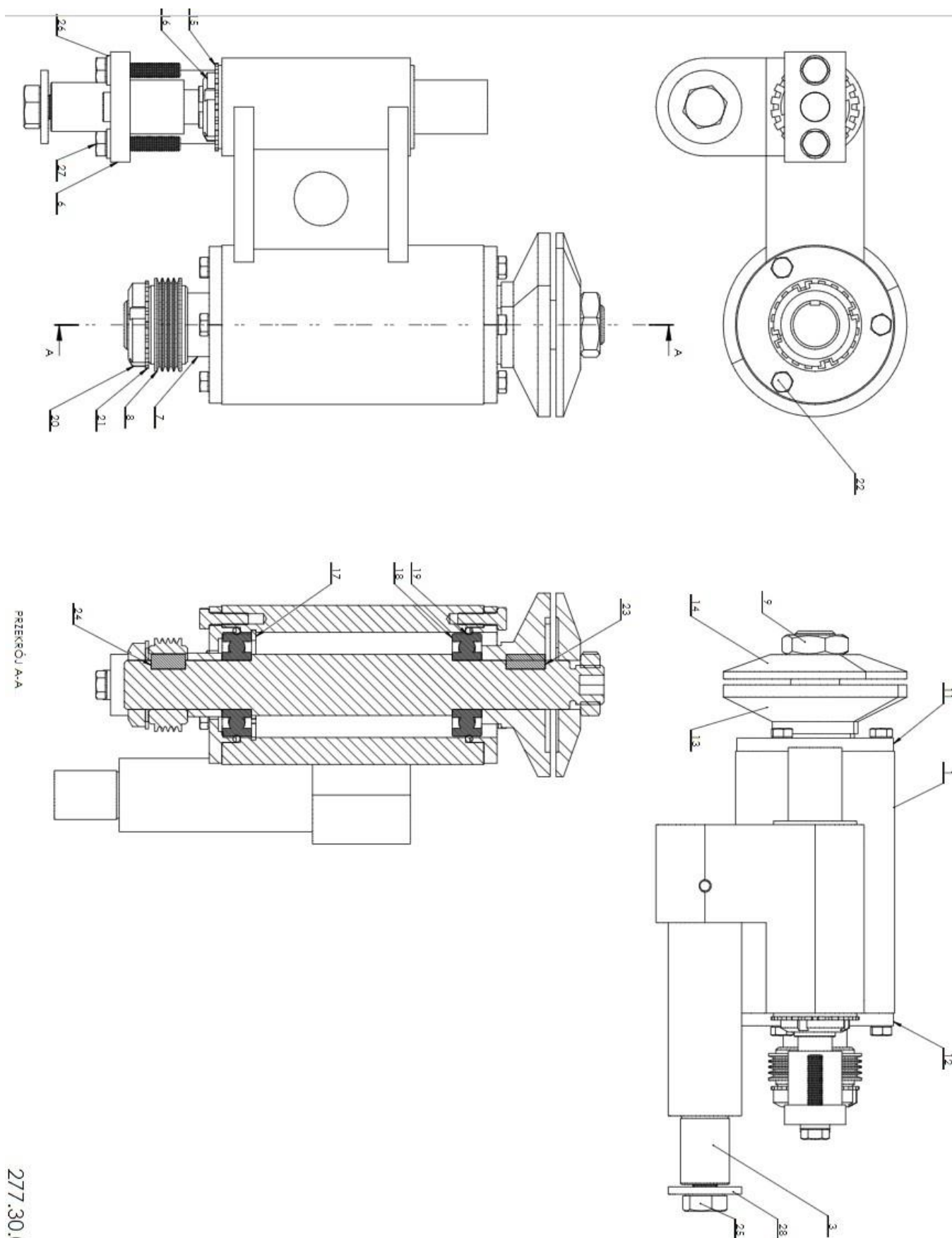
Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.30.01.000	1		
2.	277.30.02.000	1		
3.	246.40.07.000	1		
4.	277.30.00.001	1		
5.	257.03.00.013	1		
6.	257.10.00.014	1		
7.	257.10.00.013	1		
8.	257.10.00.015	1		
9.	SPRĘŻYNA GAZOWA F130N	1		
10.	MICRO-V4 PJ 610	1		
11.	PN/M-82144	1	M8	
12.	PN/M-82153	1	M10	
13.	PN/M-82105	1	M8x25	



277.07.00.000



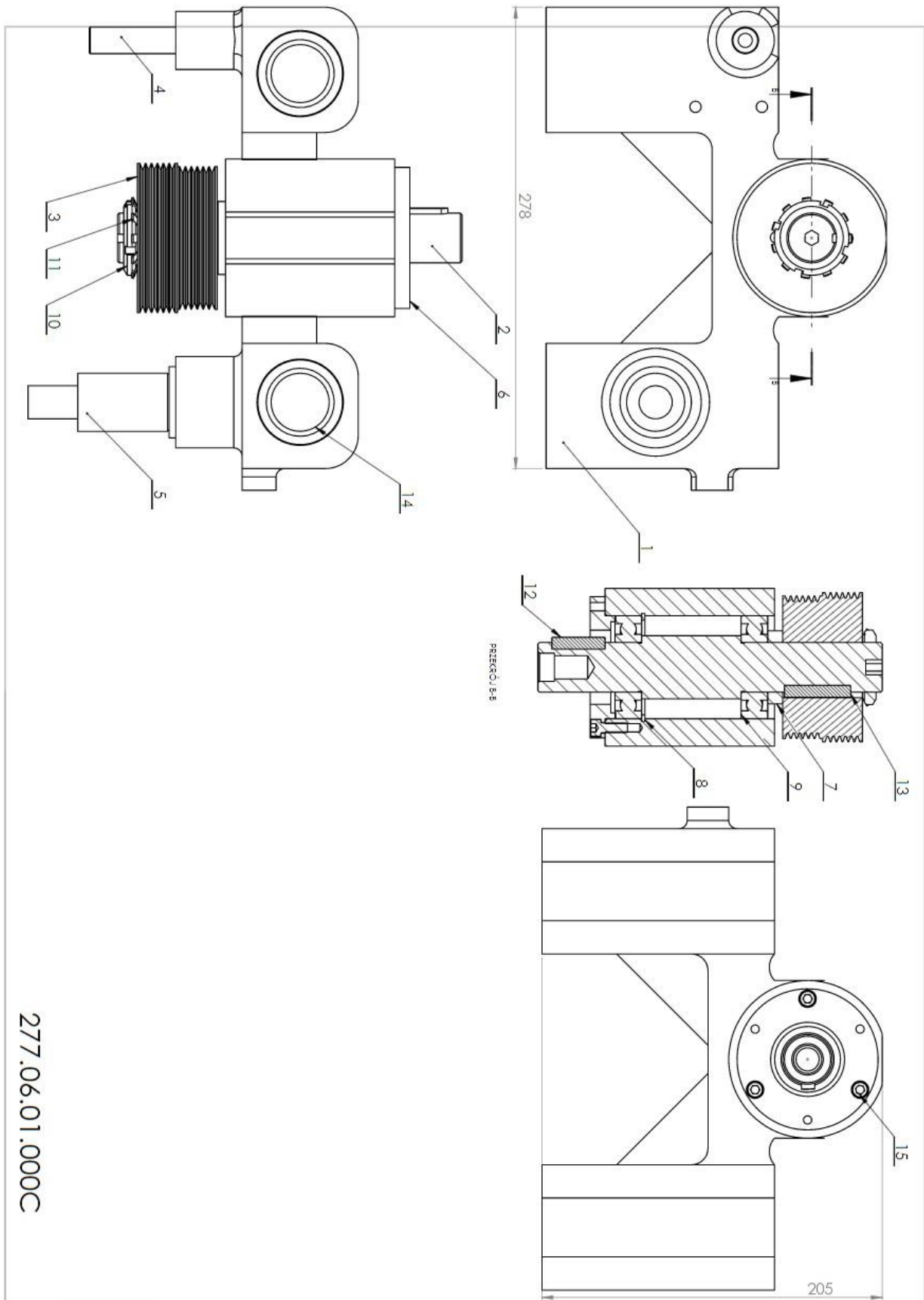
Poz.	Nr części lub normy	Ilość	Wymiar	Uwagi
Item.	Drawing or standard no.	Quantity	Dimension	Notes
Pos.	Zeichnungs- oder Norm-Nr.	Stück zahl	Ausmaß	Bemerkungen
1	2	3	4	5
1.	277.07.01.000	1		
2.	257.07.00.016	1		
3.	257.07.00.002	1		
4.	277.07.00.003	1		
5.	277.07.00.004	1		
6.	257.07.00.005	2		
7.	257.07.00.006	2		
8.	257.07.00.007	1		
9.	277.07.00.008	1		
10.	257.07.00.009	1		
11.	257.07.00.030	1		
12.	257.07.00.011	1		
13.	257.07.00.012	1		
14.	GA12-SPEC	2		
15.	245.14.01.002	2		
16.	6007	2	φ35xφ62x14	
17.	PN/M-85111	2	W62x2	
18.	A14/20x14	1		
19.	PN/M-85111	2	Z35x1.5	
20.	PN/M-82008	6	10	
21.	PN/M-82008	8	4	
22.	PN/M-82008	4	6	
23.	PN/M-82105	6	M10x25	
24.	PN/M-82302	8	M4x12	
25.	PN/M-82302	4	M6x12	
26.	PN/M-82302	2	M6x16	
27.	257.07.00.013	1		
28.	257.07.03.000	1		
29.	123.03.05.001	1		
30.	245.14.02.003	1		
31.	PN/M-85111	2	Z32x1.5	
32.	PN/M-85111	1	Z22x1.2	



277.30.01.000



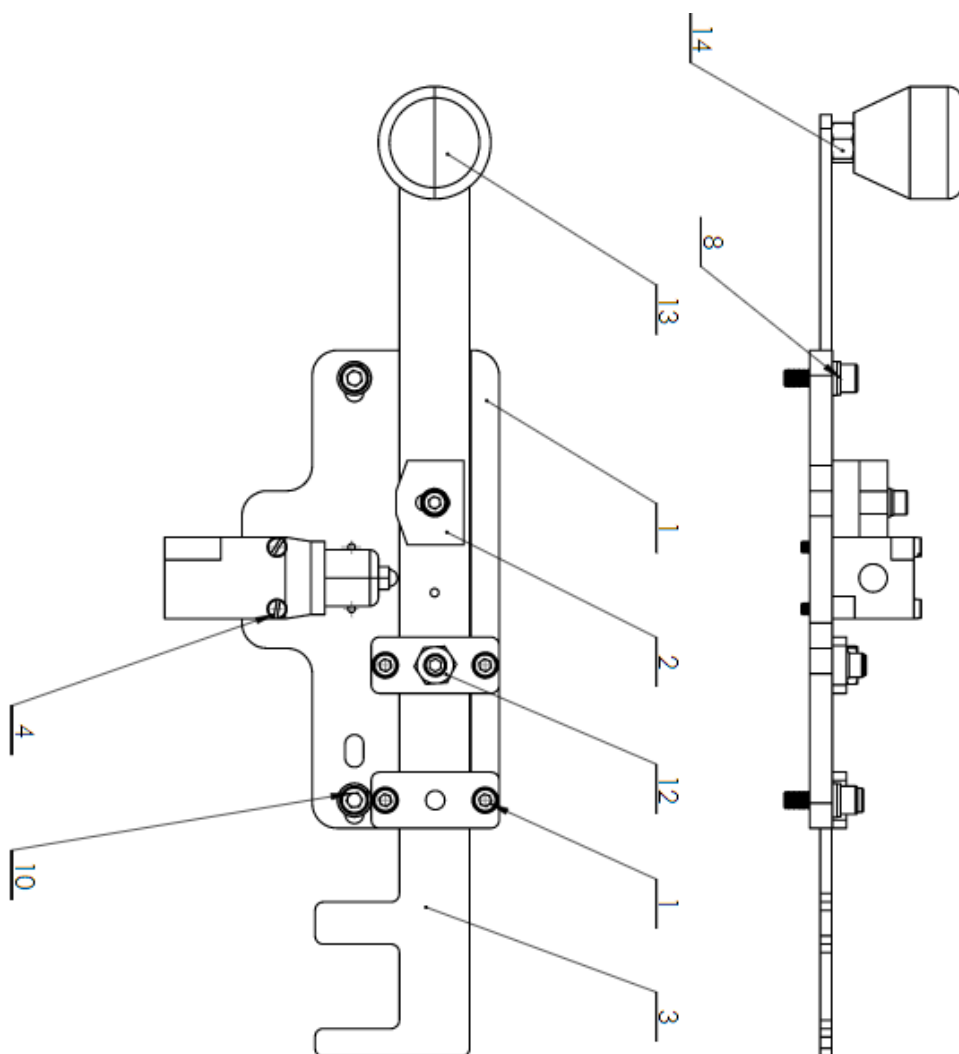
Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.30.01.000	1		
2.	277.30.02.000	1		
3.	246.40.07.000	1		
4.	277.30.00.001	1		
5.	257.03.00.013	1		
6.	257.10.00.014	1		
7.	257.10.00.013	1		
8.	257.10.00.015	1		
9.	SPRĘŻYNA GAZOWA F130N	1		
10.	MICRO-V4 PJ 610	1		
11.	PN/M-82144	1	M8	
12.	PN/M-82153	1	M10	
13.	PN/M-82105	1	M8x25	



277.06.01.000C



Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.06.01.001			
2.	277.06.01.002			
3.	277.06.01.003b			
4.	277.06.01.006			
5.	277.06.01.010			
6.	257.06.00.011			
7.	257.06.01.004			
8.	PN/M-85111		W 62 x 2	
9.	6206 2RS		Ø30xØ62x16	
10.	PN/M-86478		KM6	
11.	PN/M-86482		MB6	
12.	PN/M-82005		A8 x 7 x 32	
13.	PN/M-82005		A8 x 7 x 40	
14.	LM35UU			
15.	PN/M-82302		M6 x 16	



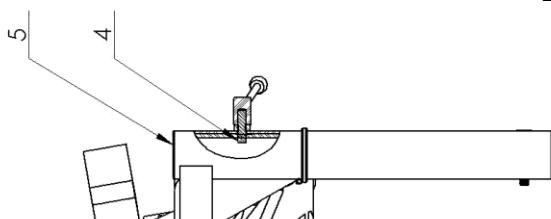
277.26.00.000A

Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
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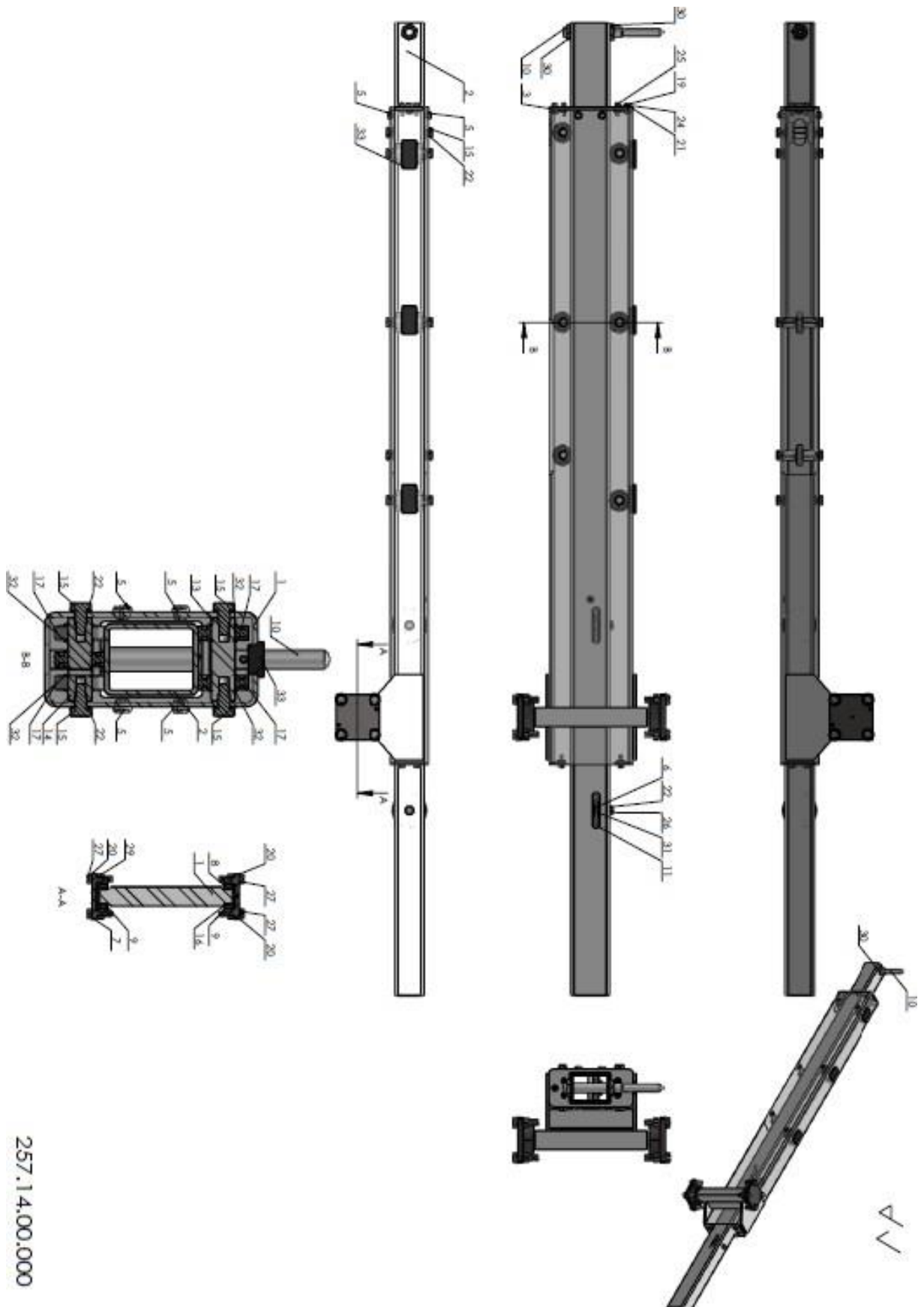
Item.	Drawing or standard no.	Quantity.	Dimension.	Remarks.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.	277.26.01.000			
2.	245.26.00.003			
3.	277.26.02.001A			
4.	PN/M-82227	M4x40		
5.	83-400-0s			
6.	PN/M-82005	6,6		
7.	PN/M-82005	3,2		
8.	PN/M-82008	6		
9.	PN/M-82008	5		
10.	PN/M-82302	M5x20		
11.	PN/M-82302	M5x25		
12.	PN/M-82153	M8		
13.	D-25 38.0092.02508			
14.	PN/M-82144	M8		

277.41.00.000A





Poz.	Nr części lub normy.	Ilość.	Wymiar.	Uwagi.
Item.	Drawing or standard no.	Quantity.	Dimension.	Notes.
Pos.	Zeichnungs-oder Norm-Nr.	Stück zahl.	Ausmaß.	Bemerkungen.
1	2	3	4	5
1.		1		
2.	277.41.03.000	1	277.41.03.000	
3.	277.41.04.000	1	277.41.04.000	
4.	278.09.16.000	1	278.09.16.000	
5.	245.09.00.006	1	245.09.00.006	
6.	BK19.0052.0902050	1	BK19.0052.0902050	
7.	Ø16H7	1	Ø16H7	
8.	PN/M-82019	2	PN/M-82019	
9.	PN/M-82105	2	PN/M-82105	



257.14.00.000



Poz.	Nr części lub normy	Ilość sztuk	Wymiar	Uwagi
Item.	Drawing or standard no.	Quantity	Dimension	Notes
Pos.	Zeichnungs- oder Norm-Nr.	Stück zahl	Ausmaß	Bemerkungen
1	2	3	4	5
1.	257.12.01.000	1		
2.	257.12.02.000 IV	1		
3.	195.12.00.010	1		
4.	195.12.00.011	1		
5.	257.12.00.005	4		
6.	257.12.00.006	2		
7.	004.43.00.018	1		
8.	004.43.00.019	1		
9.	257.12.00.009	2		
10.	257.12.00.010	1		
11.	195.12.00.028	2		
12.	257.12.00.012	4		
13.	1206	2	30/62x16	
14.	257.12.00.014	2		
15.	257.12.00.015	2		
16.	257.12.00.016	8		
17.	093.44.34.000	6		
18.	RUP-004	2	17/23	
19.	PN/M-82302	2	M6x16	
20.	PN/M-82302	8	M6x20	
21.	PN/M-82105	2	M10x16	
22.	PN/M-82105	8	M12x45	
23.	PN/M-85111	12	Z12x1	
24.	PN/M-85111	2	Z16x1	
25.	PN/M-82144	8	M12	
26.	PN/M-82153	2	M20	
27.	PN/M-82005	8	6,6	
28.	PN/M-82005	8	13,5	
29.	PN/M-82008	10	6	
30.	PN/M-82008	2	10	
31.	PN/M-82008	8	Z12,2	
32.	PN/M-82207	1	M6x16	

SAFETY INSTRUCTION OF THE WORKING STAND

1. Before working with the saw MS750, please read the operating and installation instructions.
2. The sawing machine should be used in accordance with its intended purpose.
3. All work on electrical equipment, i.e. connecting, breakdowns, repairs, should be carried out by qualified personnel.
4. Before each start of sawing machine, the following must be checked:
 - All guards and protective covers are in functional and properly fastened,
 - The riving knife is properly fastened and properly matched to the saw blade,
 - Saw blade is securely and properly fastened.
 - Transverse fence of auxiliary table and longitudinal ruler is locked,
 - Auxiliary table is locked on guide of the moveable table.
5. When working on the saw, take extra care near the saw blade area. Take extra care with the saw blade of the rip saw, whose braking time is longer than the main saw blade.
6. Use a pusher to move material in the area near the circular saws.
7. All activities related to the installation and replacement of the cutting blade, troubleshooting and making minor repairs should be performed with the power off and the machine disconnected from the power source (main switch in the "0" position).
8. When you have finished work, turn off the saw's power, clean the machine of debris from cutting materials, and protect the machine from accidental startup.



Declaration of Conformity EC

WE **„REMA” S.A.**
11-440 Reszel ul. Bolesława Chrobrego 5

Declare with full responsibility that the machine

Name of machine: **PANEL SAW**

Type: **MS750** Serial number..... Year of Production.....

To which this declaration relates meets the requirements:

- European Directives: 2006/42/EC (Machinery Directive) dated May 17, 2006:LVD 2014/35/EC (Low Voltage Directive) /2014/30/EC; (Electromagnetic Compatibility Directive)
- Regulation of the Minister of Economy of 21.10.2008 on basic requirements for machinery (Journal of Laws No. 204 item.2087), and of 21.08.2007 on essential requirements for electrical equipment (Journal of Laws) No.155 item. 1089).
Regulation of the Minister of Transport and Construction of 27 December 2005 on assessment of the compliance of the apparatus with the essential requirements regarding electromagnetic compatibility and method of its markings (Journal of Laws No. 265, item 2227).
- National Standards: PN-EN1870-18:2013-09, PN-EN60204-1:2010, PN-EN50370-1:2007, PN-EN50370-2:2005,PN-EN ISO 13857:2010,PN-EN ISO 12100:2012 and complies with the technical documentation stored by:

REMA S.A
11-440 RESZEL
ul. Bolesława Chrobrego 5
POLAND

- person authorized to prepare the documentation:
Tomasz Piłka Świąta Lipka 6/2 11-440 Reszel

Reszel.....

Name and Surname: **Tomasz Piłka**
Position: **Manager of Technical Department**

.....
Signature