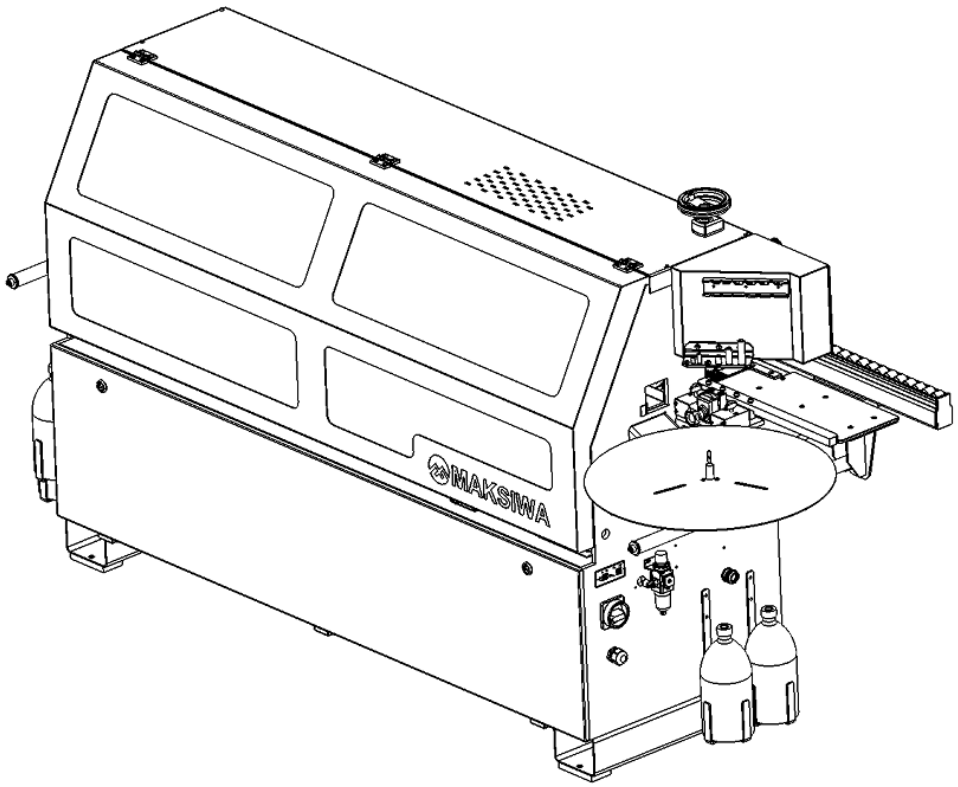
MAKSIWA CBC.P
AUTOMATIC EDGEBANDER



Model: CBC.P

Version: 00 10/2023

1 INTRODUCCIÓN

1.1 Scope and objective of the manual

This manual is for the operator and all staff who have the responsibility of using the machine correctly, keeping optimum safety conditions at work at all times.
The manual includes machine technical specifications, as well as the information required for its correct installation, start up, maintenance and troubleshoot. It is highly recommended to read it carefully, especially the sections related to warnings and using options, and to keep it at hand, preferably close to the machine, so it is always available for any query.

1.2 Presentation

MAKSIWA CBT.P edgebanders are automatic machines specially designed to get the edge glued to the panel, leaving a perfect finish with the highest quality. To achieve this, these are equipped with different functional groups, which carry out each operation of the process individually.

1.3 Reference regulations

MAKSIWA CBC.P edgebanders are designed and built in accordance with current regulations and legislation:

- European regulations: 2006/95 / CE, 2004/108 / CE, 2006/42 / CE
- 2006/95 / CE Low Tension Regulation
- 2004/108 / CE CEM Regulation
- 2006/42 / CE Machinery Regulation
- Harmonized regulations: EN 14121: 2007, EN 60204-1: 1999, EN 13849-1: 2008, EN 953: 1998, EN 1088: 1996 and EN 13850: 2007

1.4 General warnings

The correct use of the machine implies the precise knowledge of this manual and all the risks derived from its misuse. Only authorized personnel must use the machine.

A correct operation of the machine is guaranteed for the functions and materials specified in this manual. MAKSIWA assumes no responsibility when the machine is used for purposes not indicated and not in accordance with the manual.

MAKSIWA is not responsible for the security, reliability and performance of the machine if the warnings and suggestions referred to in this manual are not respected, particularly with regard to assembly, handling, preventive maintenance and repair activities.
The electrical installation for the machine must be in accordance with European Regulations and Harmonized Regulations detailed in section 1.3 of this manual. The manufacturer disclaims all kinds of responsibility in the event that the machine is not correctly connected to the equipotential ground installation and consequently the protection devices are not mounted behind the machine itself. Section 5.4 of this manual refers to the minimum requirements to be taken into account during the electrical installation of the machine.

For preventive maintenance and repair operations, use only original spare parts or those expressly authorized by MAKSIWA should be used.

For repairing, it is advisable to contact our technical assistance service. In the event that the machine has not been repaired or maintained by authorized MAKSIWA staff the responsibility for its perfect operation rests only on the staff in charge of its use and operation.

2 TECHNICAL SPECIFICATIONS

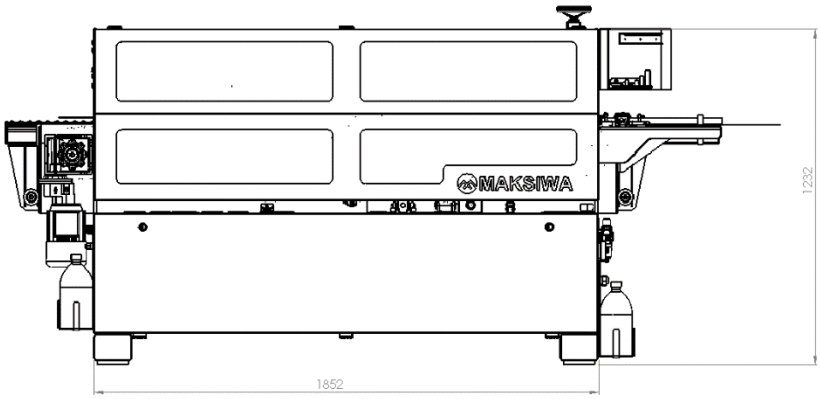
2.1 Power requirements

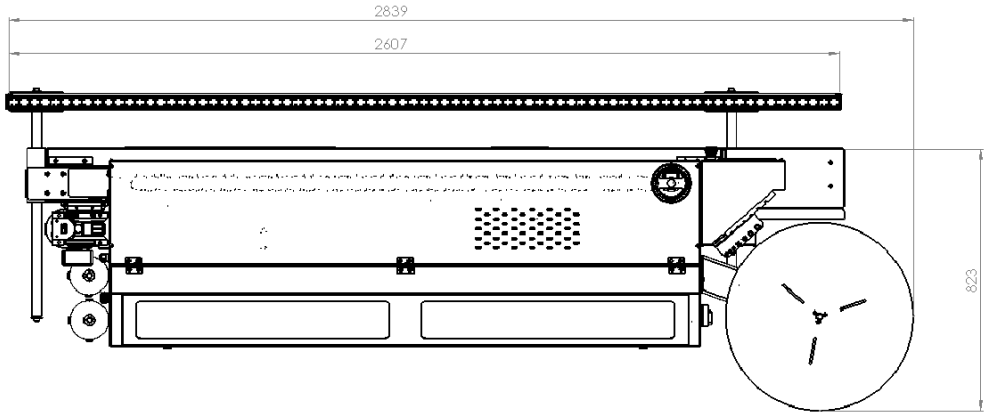
Model	VOLTAGE	PHASE	Total HP	Total kW	Total Amps
CBT.P	230	Single phase	12.00	8.90	40.00

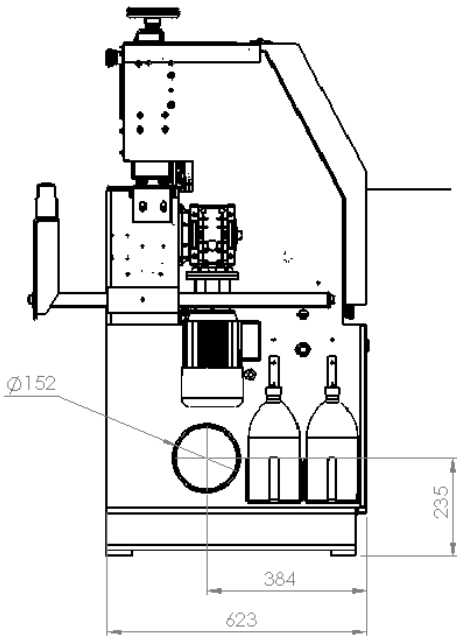
2.2 Technical details

Technical details	
MODEL	**CBC.P**
PANNEL THICKNESS (MIN/MAX, mm)	10-50
PANEL WIDTH (mm)	120
MINUMUM PANEL LENGTH	200
TAPE THICKNESS (MIN/MAX, mm)	0.4 – 2.0
DRAG CHAIN SPEED (m/min)	5.5
WORKING AIR PRESSURE (MPa)	0.6
DUST COLLECTOR POWER (m^3/h)	2100
MAXIMUM AIR CONSUMPTION (l/min)	350-400
NET WEIGHT (Kg)	750

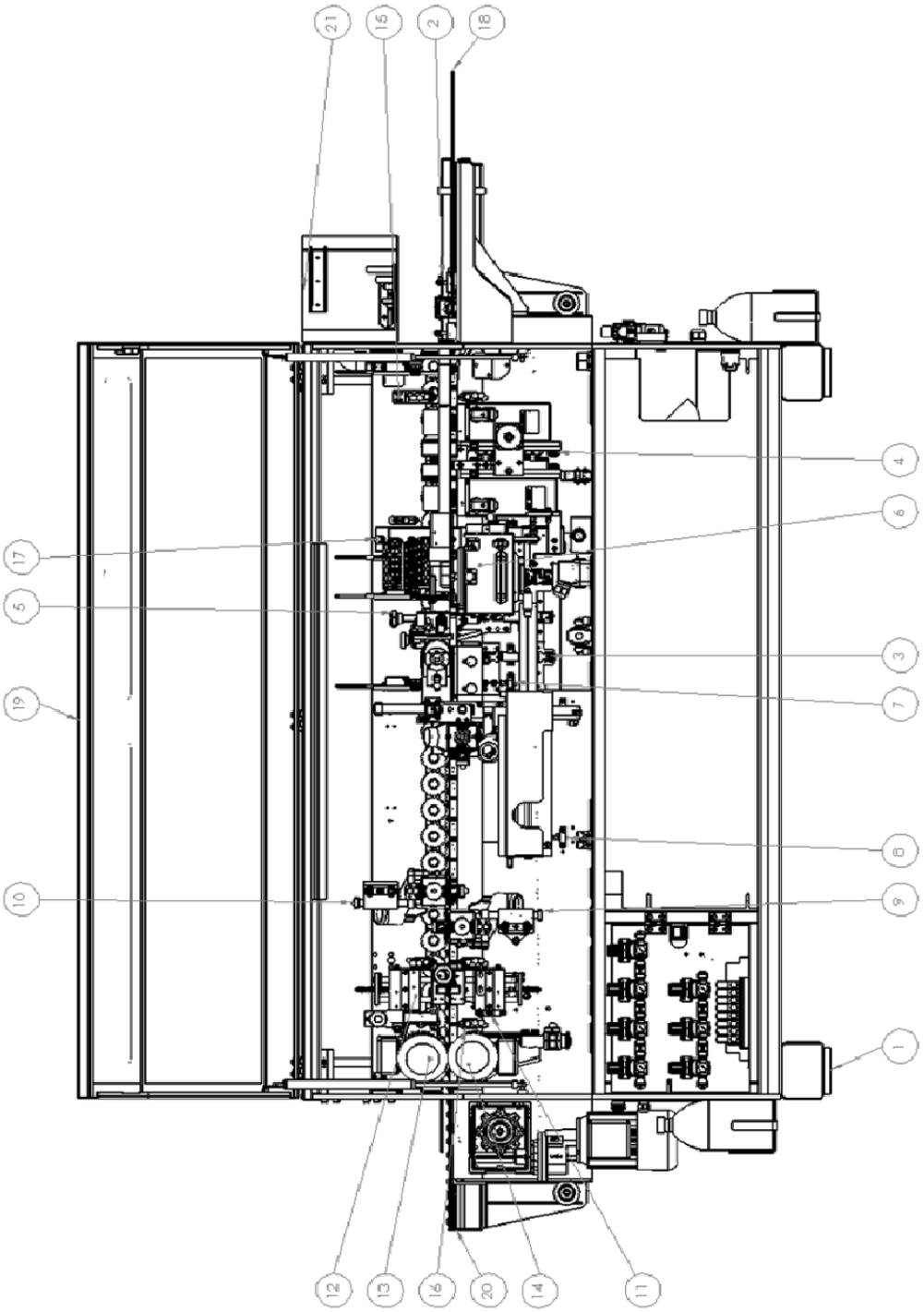
2.3 DIMENSIONS (MACHINE LAYOUT)







2.4 MACHINE CONFIGURATION

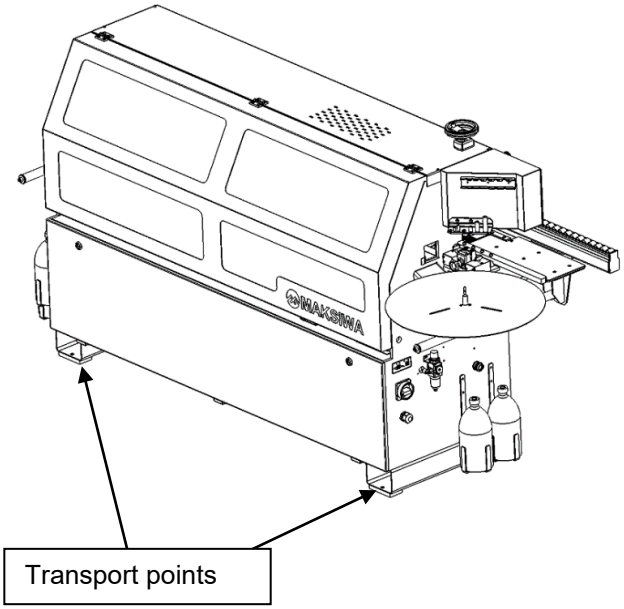


Working units list Maksiwa CBC.P 10170204			
#	**Qty.**	**Unit model**	**Reference**
1	1	Benchframe	100309
2	1	Infeeding fence XL	200100
3	1	Gearbox	300063
4	1	Premilling PF-2	400067
5	1	Feeding tray (feeding + guillotine)	500158
6	1	Gluepot	600091
7	1	Side pressure rollers	700128
8	1	End trim V-1L	800070
9	1	Trimmer bottom	900223
10	1	Trimmer top	900225
11	1	Glue scrapper RR8 bottom	1200011
12	1	Glue scrapper RR8 top	1200012
13	1	Buffing top	1300033
14	1	Buffing bottom	1300036
18	1	Coil tray	1800050
19	1	Cabin door	1900290
20	1	Extensible apron	2000259
21	1	Screen assembly	5005183

3 INSTALLATION AND START UP

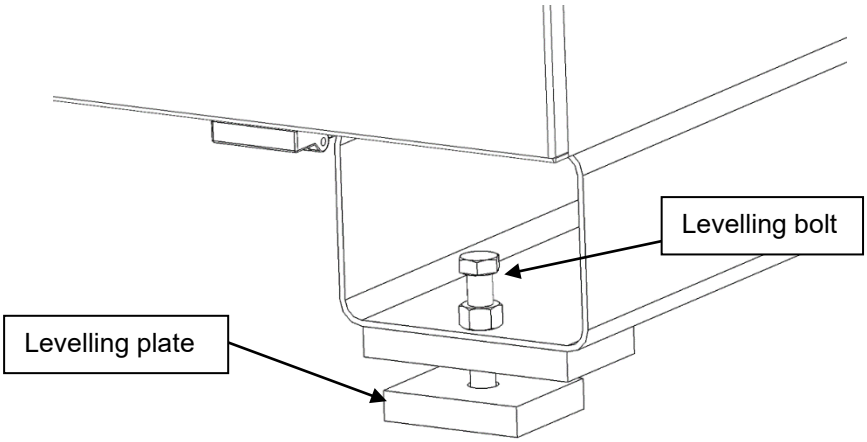
3.1 Transport

- Use adequate machinery for its transport (machine weight is 750 kg).
- Lift and transport the machine taking into account that the support points must be as close as possible to the transport bars.
- Be as cautious as possible when lifting and moving the machine in order to prevent eventual dangers provoked by unforeseen movements, which could cause damage to people or objects.



3.1.1 Level

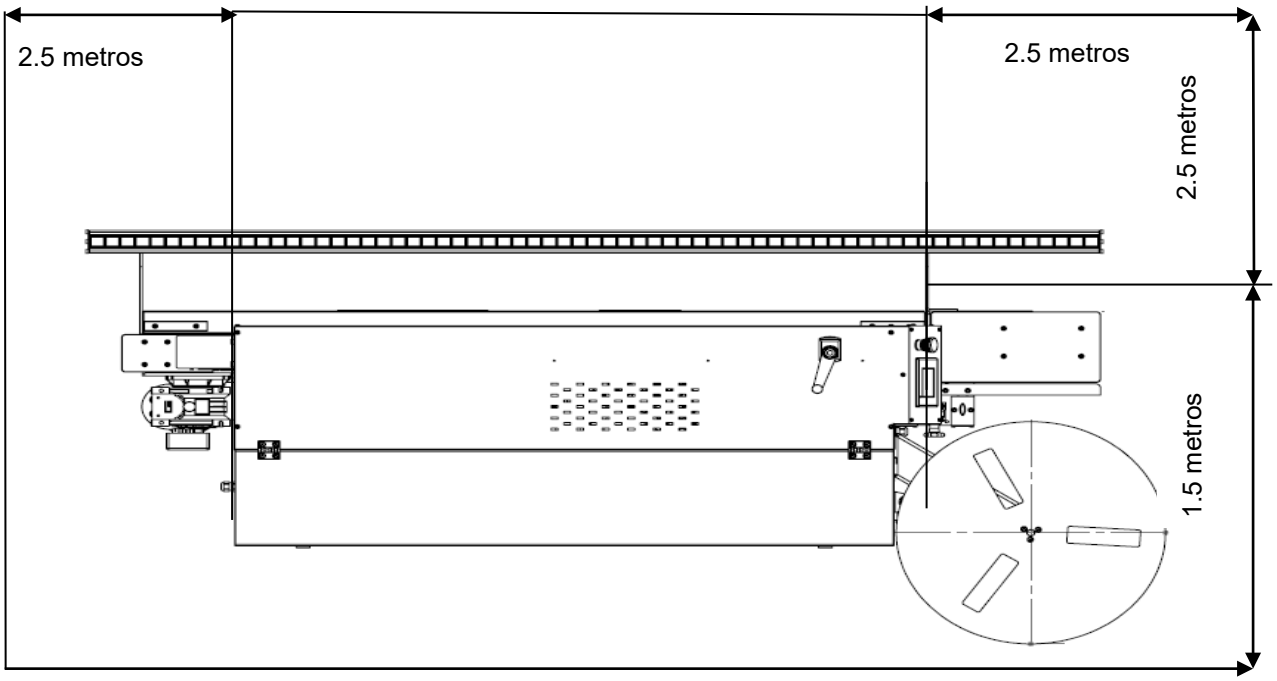
- Position the machine in a flat surface suitable to support the weight of the machine.
- Use the support plates for levelling the machine surface. Use the bolts supplied with the machine to jack and level. Check with a level on different parts of the machine.
- Do the final test of level stopping a panel inside and positioning the level on top of the panel.



3.2 Operators working area (safety position)

Place the machine in final position keeping in mind the following premises:

- A maximum of two operators are required to use the machine, one located at the entrance of the machine to introduce the raw panels and the other at the exit to collect the finished panels. Check safe working zones for the two operators are at the bottom of this page.
- The machine screen (HMI) is easily accessible to operators and is located outside any area that could be dangerous for them.
- There is no cables/hoses in path of the machine workers that could cause any accident.
- Pay utmost attention to avoid objects that obstruct work in working zone.



3.1 Units release, extensible apron and coil tray

After positioning the machine, and before connecting compressed air and power supply, release all zip ties, or any other element mean for machine transport. Check the correct pneumatic and mechanic movement of the unit, ensuring that there is not damage after transport.
Proceed to install extensible apron and coil tray. Refer to the manual of each unit for more information.

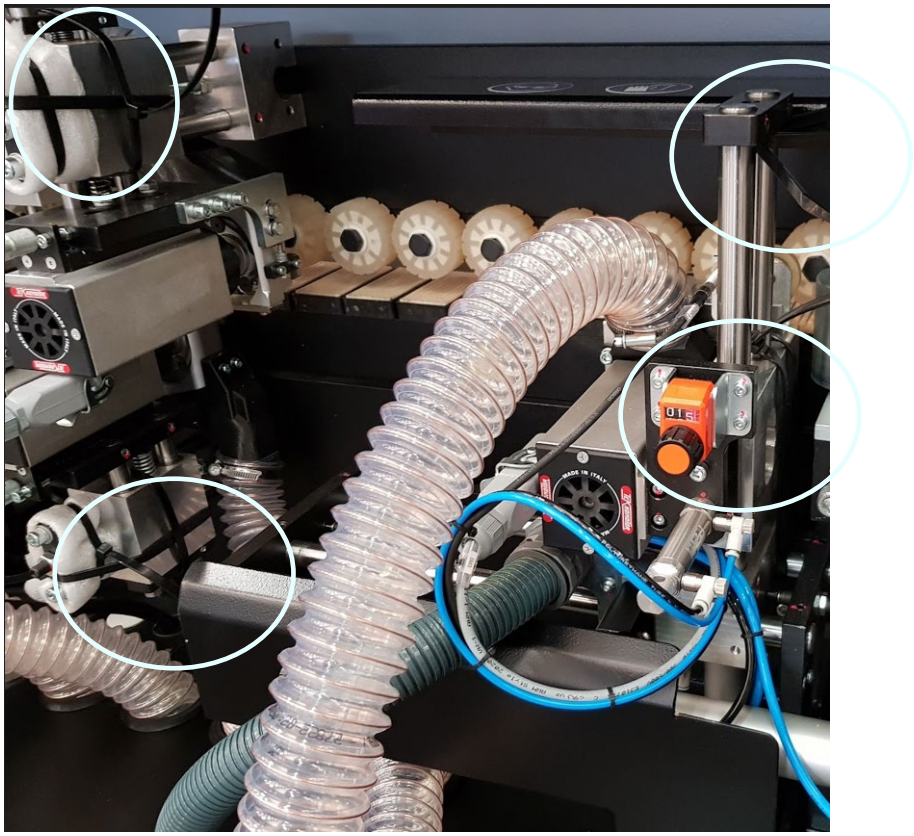
3.1.1 Working units fixing elements for transport

Gluepot

- Protection pad between gluepot and feeding tray.
- Fixing tie for gluepot cover

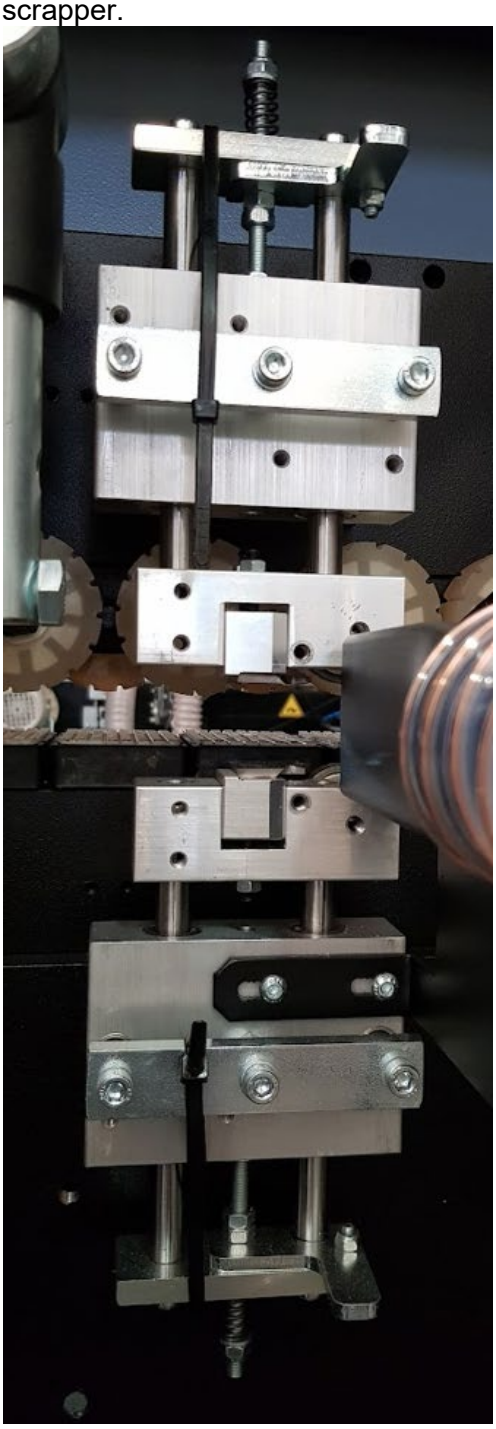
End trimming and trimmer

- Zip ties fixing top trimmer (x3).
- Zip ties fixing bottom trimmer (x2).
- Zip ties fixing end trimmer (x2).



Glue scrapper

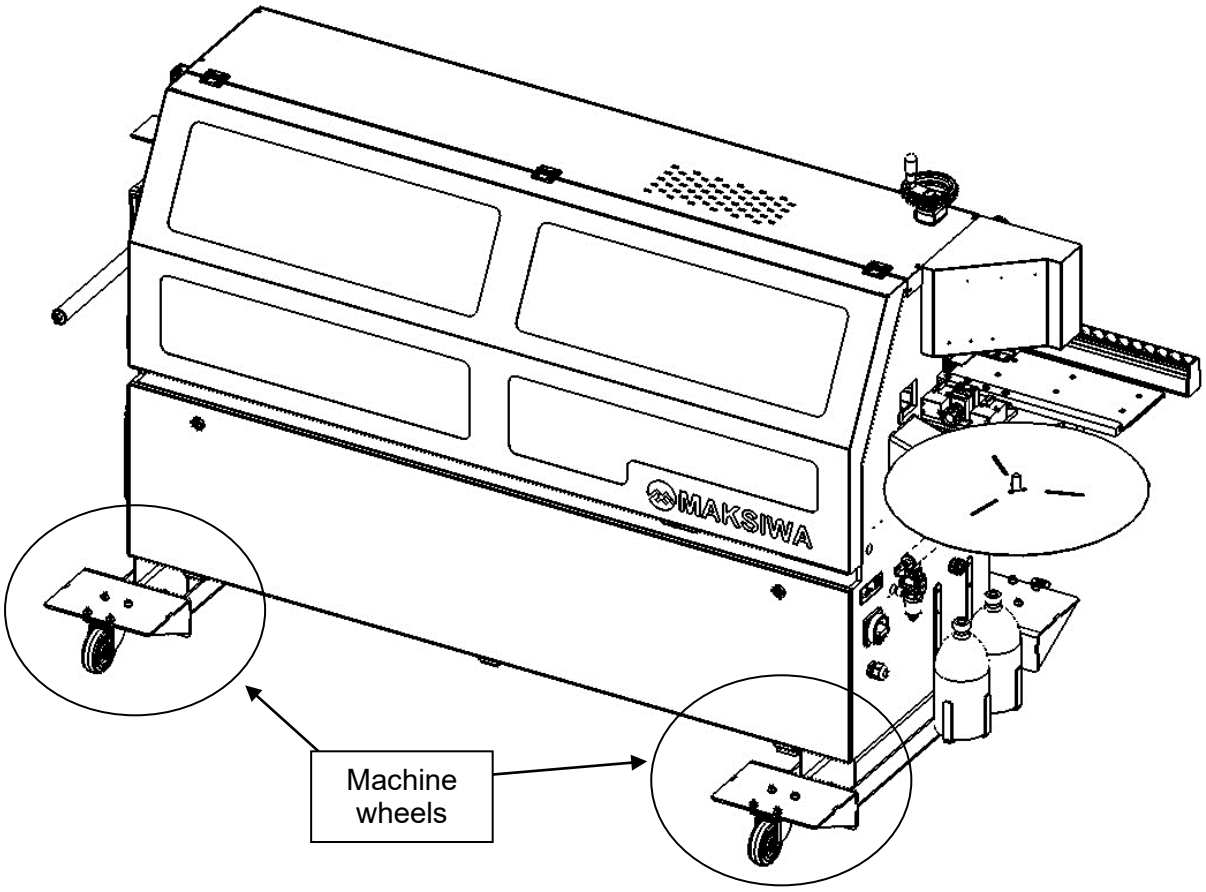
- Zip tie fixing top scrapper.
- Zip tie fixing bottom scrapper.



3.1.2 Wheels installation

Due to safety reasons, it is not possible to ship the machine with wheels installed, if you purchased the machine with wheels option, install them before machine electric/pneumatic connection.

- Use a pallet truck to raise the machine.
- Install all 4 wheels using provided tools.

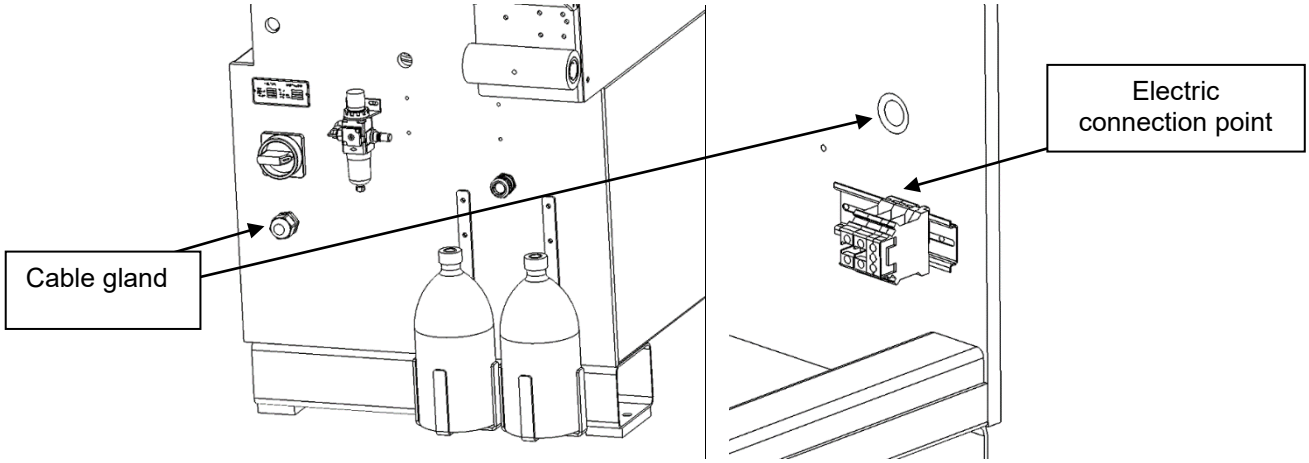


- Fix wheels using brake pedal all the time except when moving for storage purposes.
- Keep the machine on leveled floor during edgebanding process.

3.2 Electrical installation

Proceed with electrical installation after leveling the machine, coil tray and apron installation. Follow these guidelines:

- Installation must be in accordance with European Regulations and Harmonized regulations.
- Availability of an equipotential ground installation.
- Availability of fuses or short-circuit and surge protection switches on each conductor wire excluding the ground wire.
- Use a **cable of 3 x 6mm^2,** pass it through the cable gland to the interior of electric cabinet and connect it accordingly. Ensure that the cable will not interfere with working zone causing any accident.



IMPORTANT: Before making the connection of the machine, check that the voltage among terminals **R0, S0** is **220V**. A poor connection will cause irreparable damage to the machine electronic converters with the consequent **LOSS OF WARRANTY**.

This machine has a phase monitor that checks voltage, phase sequence and phase loss. This safety device is to avoid accidental voltage rises and falls, phase or neutral losses and phase synchronism; this is why it is located at the machine connection, before the main switch (see details in annex “Electrical diagram”).

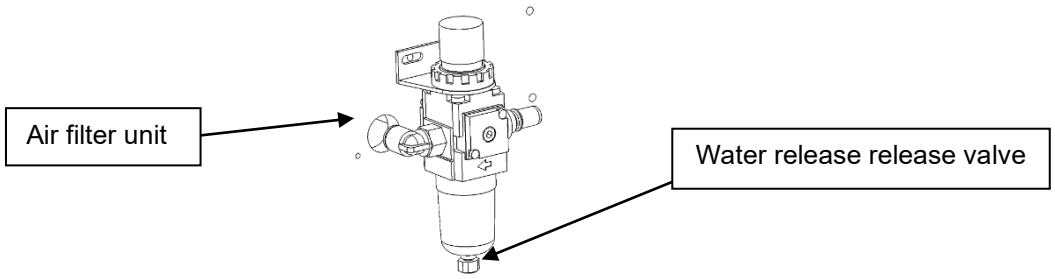
3.3 Pneumatic installation

For pneumatic connection:

Use a tube/hose with an internal diameter between 10 and 12mm and connect it to the air filter unit using with a minimum socket of 3/8” (make sure that this hose will not interfere with working zone causing any accident).

Set-up a minimum pressure of 0.6MPa and ensure a flow of 380 litres / minute.

Ensure a humidity free compressed air towards the machine and use the valve to release the water inside the filter periodically.



A poor pneumatic connection will cause incorrect movement of working units causing mechanic damage, and consequently **LOSS OF WARRANTY.**

3.4 Start and stop (first check-up)

Once the machine is in final position, connected correctly to the electricity and with pneumatic connection, now you can turn on the machine and check working units and safety systems:

- Ensure that the emergency button, cabin security and any other security system present in the machine is working.
- Check the correct height of pressure.
- Turn off all the units except the gluepot. When the glue pot reaches the programed temperature you can start the machine using the ON / OFF button (Start / Stop).
- Turn on all the units one by one and checking the correct functioning of all according to your work.

NEVE USE THE EMERGENCY STOP TO STOP THE MACHINE UNDER ORDINARY WORKING CONDITIONS. USE IT ONLY IN EXCEPTIONAL EMERGENCIES.

MAKSIWA FORBIDS REMOVING OR MODIFYING THE MAGNETIC SAFETY DETECTORS, WHICH CAUSE THE MACHINE TO STOP WHEN THE CABIN DOOR IS OPEN. IT IS ALSO FORBIDDEN TO START THE MACHINE WHEN ANY OF THE CONNECTORS IS NOT OPERATIONAL OR DISABLED.

4 MAINTENANCE AND CLEANING

BEFORE STARTING PREVENTIVE MAINTENANCE, DISCONNECT THE MACHINE ELECTRICALLY AND PNEUMATICALLY. INSTRUCTED STAFF MUST PERFORM THIS PROCESS.

4.1 Daily preventive maintenance

Daily, before start using the machine, perform the following operations:

- Check that there are no elements obstructing the correct movement of units and motors since any obstruction could damage the groups or cause personal injuries.
- Verify that pressures are correct.

Daily, after using the machine, perform the following operations:

- In case you are using PUR in the DUOMELT glue pot, we recommend draining and cleaning the gluepot every day. In any case, follow glue manufacturer strict recommendations.
- The working area should be cleaned using pressure air to remove chips and material residues that may settle over the working groups and jeopardize the machine proper operation. Pay special attention to cleaning the drag chain pads. An inadequate cleaning will cause the remains of material in the pads and thus prevent the proper sliding of panels, also generating irregularities on the surface that lead to further pressure beam adjustment.
- Check the condition of cutters and tracers.

4.2 Weekly Maintenance

Perform the following operations once a week:

- Carry out all the daily maintenance detailed previously.
- Cleaning of the glue pot to leave it empty and remove any trace of glue.
- Check the safety level of the electrical installation.
- Check that the status of tools (premilling, end trim saws, trimmer cutters).
- Raise the pressure beam, clean the wheels, and drag chain pads with a mild thinner.
- Lubricate slightly the chain with synthetic fluid grease.
- Draining the filter group in order to remove water and impurities.

5 SAFETY

5.1 General safety rules

- Only a trained operator can use the machine, to ensure the correct use of the machine as well as its protection devices and accessories. Read carefully this manual to learn about safety devices usefulness, limitations and potential dangers.
- Only a trained technician should connect the machine.
- Perform the machine adjustment and regulation according to this instruction manual.
- Carry out preventive maintenance processes as often as required.
- Before starting each job and before starting the machine verify that control and working devices are always free of chips from the previously edged material.
- Before performing any operation on the machine, make sure that there are no obstacles around the working.
- Do not place flammable substances near the machine since any possible spark could cause an explosion or fire.
- The operator must always keep in mind possible risks before approaching the most dangerous areas with his hands.
- Never remove the protections from the glue pot since they avoid any possible risk of burning for the operator.
- Always turn off the machine when not in use.
- Do not touch or manipulate areas that move without having switched off the machine and without making sure that there is no residual movement.

5.2 Individual Protection Equipment (IPE)

The following IPE will be required, depending on the work:

- Eye protection: during preparation work.
- Safety shoes.
- Dust protection mask when cleaning the machine.
- Protective gloves: when handling hot parts, glues or cutting tools.
- Acoustic protection.
- Working clothes: the operator should NOT wear loose clothing that could be an obstacle or snag. Do not use either ties, bracelets, rings, etc.

5.3 Environmental and noise limits

The environmental and noise limits for safe operation are listed below:

Environmental and noise limits		
	MINIMUM	**MAXIMUM**
ENVIRONMENT	INDOOR USE ONLY	
WORKING TEMPERATURE	18º C	50º C
STORAGE TEMEPRATURE	- 20º C	70º C
HUMIDITY	20% relative humidity without condensation	90% relative humidity without condensation
HEIGHT	Sea level	1.800 m
ISSUED FROM ALL MACHINE AREAS DURING USE IN A TYPICAL OPERATOR POSITION	70 dB	≥ 85 dB

5.4 Procedure in case of an accident of failure

In case of an emergency stop the machine with emergency button / buttons (red on a yellow background) located in every station where an operator can work. It has top priority over any other signal / status of the machine. Afterward, reset the machine as follows:

- Check and make sure that the dangerous situation has overcome and that all operators are in optimal conditions and in their respective safe areas to keep working.
- Reset the emergency button by rotating it until it returns to its original rest position.
- Reset the machine using the display screen. For more details, see the “Touchscreen Operation Manual”.
- Use the emergency stop button properly and never to interrupt work replacing the start / stop function.
- The emergency stop interrupts all machine functions. Some groups, such as the glue pot, can be damaged as a result of downtime, which turns into serious trouble when working with PUR since it solidifies in the glue pot, becoming embedded and causing in most cases glue pot damage and replacement.

MAKSIWA IS NOT RESPONSIBLE FOR FAILURE CAUSED BY IMPROPER USE OF THE EMERGENCY STOP

6 COMMON ERRORS AND SOLUTIONS

Fault	Solutions
Machine won't start	Check if any alarm appears on the DISPLAY (for more details, read the annex "Touch screen operating manual"). Also, confirm all the exterior conditions (electricity, compressed air).
Chipping on board	The occurrence of chips may be due to the use of inadequate panel, which may even have nails inserted (for example, chipboard).
	Check the condition of cutters to verify that there are no broken blades. Proceed according to annex "Pre-milling Station Operating Manual" to carry out this operation.
Irregular edge feeding	First, check that air pressure at machine entrance is correct (between 6 and 7 Bar).
	Feed a panel and check that the pressure piston pressure is approximately 0.15MPa. To do this watch the MR5 manometer keeping in mind that it is always at zero and it only shows pressure at the exact moment it is feeding, that is, for 1.5 second approximately. Too much air pressure also can cause irregular feeding.
	Check the condition of the gearbox drive that moves the feeding roller.
	Check that the edge roll is not caught at any stage, which prevents its natural movement (it could be the case of small strips of adhesive tape stuck at the bottom of the roll and hardly visible at first sight).
Board moves at end trim	First, carefully read the annex "End Trim Operating Manual" and check that all pneumatic pressures are correct.
	Disconnect air pressure supply from the machine and manually check that the group performs all its movements smoothly.
	Clean the carriage guide bars and tracers with a cloth dampened in machine oil, wiping them dry afterwards so that dirt does not catch on again. Wheels and chain must be clean so that they do not lose adherence.
Less radius/milling at trimmers	First, carefully read the annex "Top and Bottom Trim Operating Manual" and check that all pneumatic pressures are correct.
	Check unit tracing: when feeding a panel the unit must trace 1mm frontally and vertically.
Board un-alignment	If it is evident that the board does not advance, maintaining parallelism and tracing throughout the process, check the correct pressure beam height along the condition of the chain pads and wheels. If necessary, clean with a mild, neutral solvent.
	In small pieces, it is possible to tighten the pressure beam 0.5 mm more than the panel measurement. Tightening more than 1mm would mean forcing the drag chain motor to work. This causes overheating and excessive wear of the wheels and tires of the pressure beam.
	Check the tracing of the pressure rollers, for more details, read the appendix "Operation manual of the roller base".
	Verify that the pressure of the guillotine according to the appendix "Operating Manual of the Feeding Tray". In some cases, the pressure is increased in order to process high edge thicknesses and is not restored when the edge is changed again, causing vibrations.
Irregular gluing	First, carefully read the annex "Gluepot user manual".
	Check gluepot quantity and status.
	Verify gluepot tracing and pressure, and notice that the board is not moved by any of the working groups, and the gluepot maintains uniform tracing along the path of a long board.
	Observe the condition of the gluing roller. Contact a trained technician to perform the maintenance, if necessary.
	Check that the board cutting is 90 degrees.

7 ANEXEES

- Working unit’s user manual.
- Electric diagram.
- Pneumatic diagram.

USER INTERFACE
CBC.P

Model: User Interface manual – CBC.P
Version: 00 05/2023

1 INTRODUCTION

1.1 Scope and aim of the present manual

The present manual is for the operators and all personnel in charge of the correct use of the machine, specially taking care of the security at the working place.

Through the programmable NB5Q -TW01B terminal you will have a detail Access to the function of all operative groups.

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1.1 HMI details

- Tactile LCD TFT screen with more than 65.000 colours.
- Long duration LED back light
- Serial communication, USB or Ethernet
- 128 MB memory
- Vectorial graphics and bits map

1.2 General warnings

The correct use of this machine requires the right knowledge of this operative manual and all possible dangers arise from an incorrect use of the machine. This machine must use only authorized personnel.

Maksiwa guarantees the correct operations of the machine following the functions and parameters described on this manual. Maksiwa cannot be responsible when machines are used for other purposes not described on this manual.

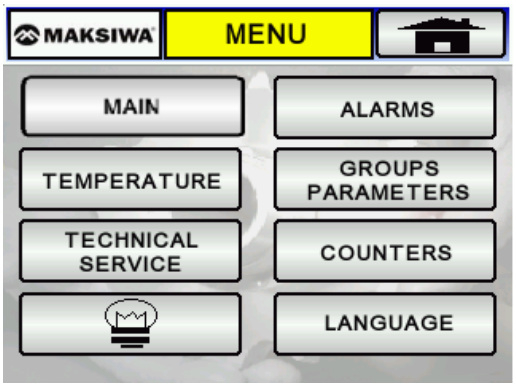
Our technical assistance department will guide you on all maintenance works if needed. When the authorized technicians of Maksiwa have not repaired the machine all responsibility lays on the personnel in charge of the maintenance or the working activities.

Maksiwa delivers all equipment accurately set to the machine can work in optimal conditions. Never modify the terminal program with software not supplied by Maksiwa.

2 USING TOUCH SCREENN

The first screen that we will see on the display once we supply power to the machine will be an initial screen with the MAKSIWA logo. This screen will stay for a few seconds and you will immediately jump to the HOME menu.

MAKSIWA LOGO SCREEN



HOME MENU

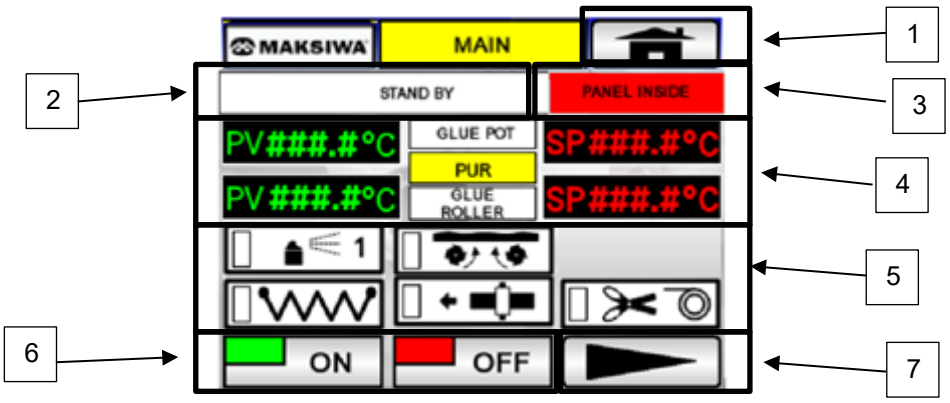
Through the HOME menu, we can access other control screens and parameter configuration. Here is a brief description of each object:

- **MAIN** – Main working menu.
- **TEMPERATURE** – Access to the EVA-PUR glue change (optional).
- **TECHNICAL SERVICE** – Allows advanced machine adjustment.
- **LIGHT** – Pressing the button turns on and off the LED lights installed in the cabin (optional).
- **ALARMS** – Access to active alarms.
- **GROUPS PARAMETERS** – Access to the unit settings.
- **COUNTERS** – Functional menu to know the operating hours.
- **LANGUAGE –** Change the language of the display.

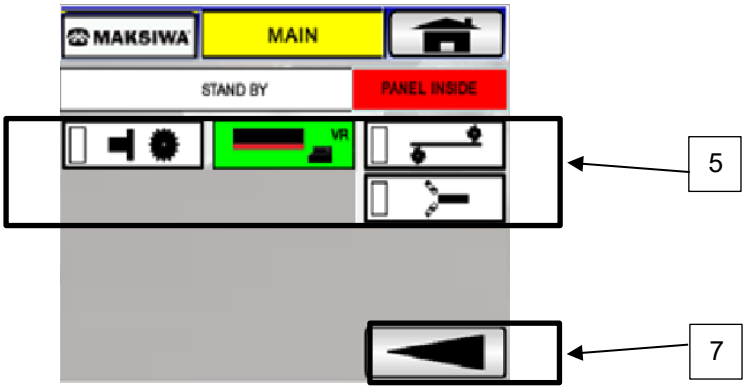
3 MAIN

The MAIN menu summarizes basic information of the machine, shows the status of the machine, set temperature / actual gluepot temperature, status of all units, and allows access to the main ON / OFF button to start the units.

MAIN screen 1st page



MAIN screen 2nd page

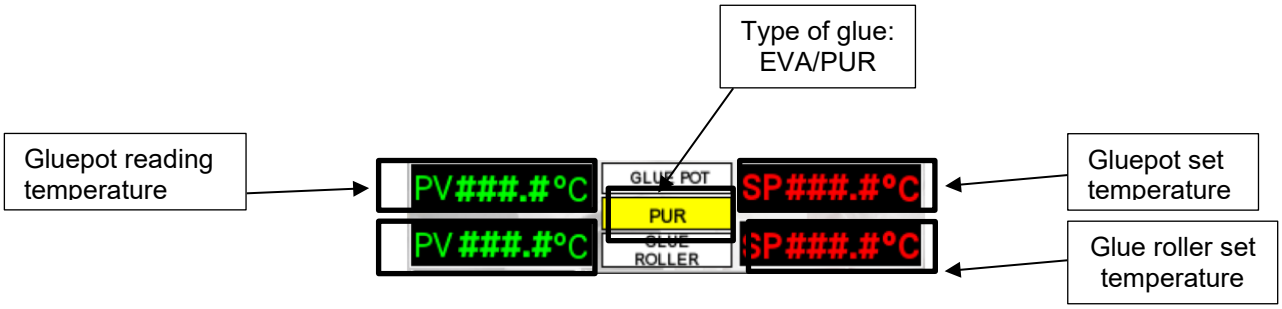


#	DESCRIPTION
1	HOME menu
2	Machine status
3	PANEL INSIDE status
4	Gluepot information
5	Working units
6	Machine ON OFF buttons
7	1st & 2nd page navigation button

3.1 Machine status messages

Message	DESCRIPTION
STANDBY	Gluepot off from screen. In this status, it is not possible to work with the machine.
WAITING WORKING TEMPERATURE	Gluepot heating up to reach working temperature.
TEMPERATURE OK	Correct glue temperature to be able to turn ON the machine and start the jobs.
PRODUCTION	Machine ON and in production.
INITIALIZING GROUPS	Since the ON button is pressed, it takes 5 seconds to initialize the entire set of groups and the chain, meanwhile machine displays message.
STOPPING GROUP	From the moment the OFF button is pressed, it takes 5 seconds to stop the units set and the drag chain, meanwhile machine displays.
EMPTYING MACHINE	Warning that the machine is free of panels after emptying process.
WAITING FOR MACHINE EMPTY	Warning of the process of emptying the panels in the machine after an incorrect operation.
END OF EMPTYING	Machine has finished emptying process.

3.2 Gluepot information



- Values in green are machine readings and in red are set temperature by user.

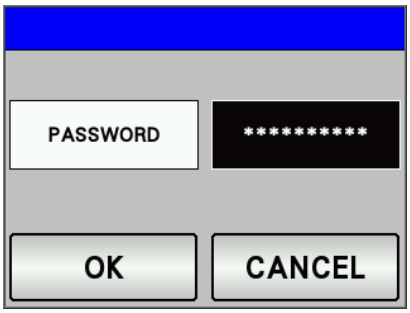
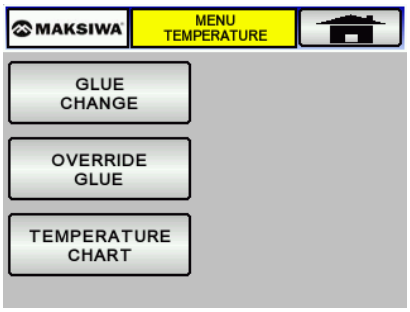
3.3 Working units

UNIT	OFF	ON
Non-stick spray		
Premilling		
Gluepot		

Feeding		
Guillotine		
End trim		
End trim (Vertical rounding ON/OFF)		
TOP / BOTTOM trimmers		
Buffing		

4 TEMPERATURE

Follow strict recommendations of glue manufacturer for working with different type of glues.

	Access this menu with provided password during training process.
	**GLUE CHANGE** – Glue change; EVA ↔ PUR.
	OVERRIDE GLUE – Glue changeg; EVA ↔ PUR.
	TEMPERATURE CHART – Temperature evolution

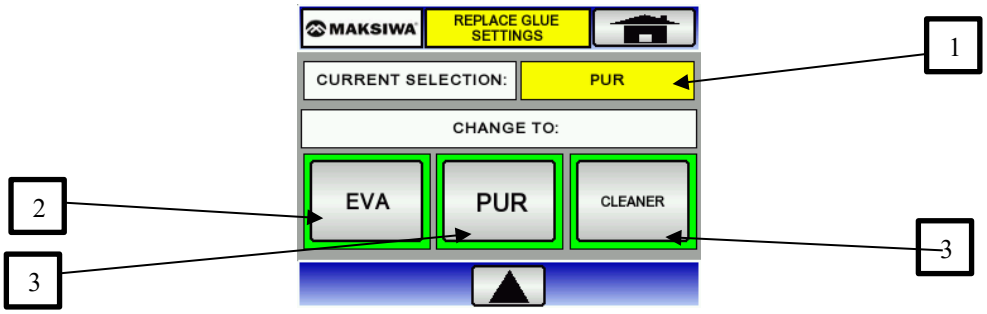
4.1 GLUE CHANGE

1 – Type of glue selected.

2 – Selection of EVA glue type.

3 – Selection of PUR glue type.

4 – Selection of cleaning agent, after flushing PUR glue.

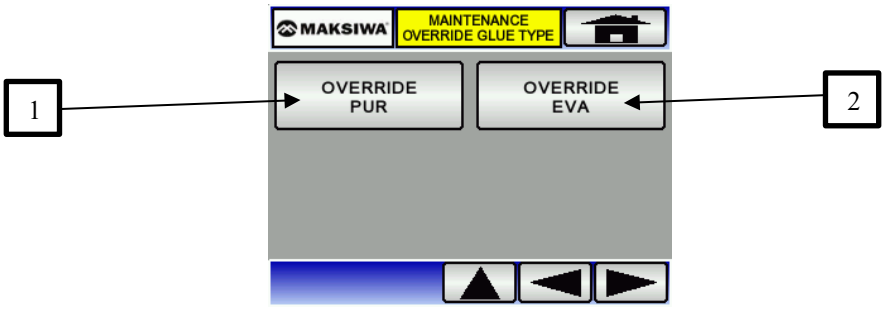


EVA→PUR/PUR→EVA	For those cases in which the machine will continue to work with another type of glue, once the current glue has finished.
PUR→Cleaning agent	Cleaning process after using PUR glue.
Cleaning agent→PUR / EVA	Front cleaning agent to work again with EVA or PUR GLUE.

4.1.1 OVERRIDE GLUE

1 – Change directly from EVA to PUR.

2 – Change directly from PUR to EVA.



5 TECHNICAL SERVICE

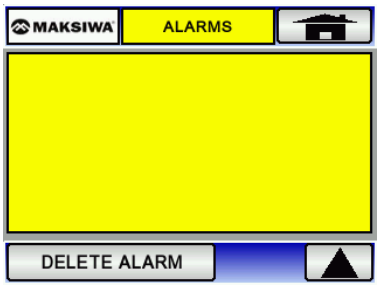
Advance menu only accessible for technicians.

6 CABIN LIGHTS

	Press on the cabin lights button to turn on / off the LED lights installed in the cabin.

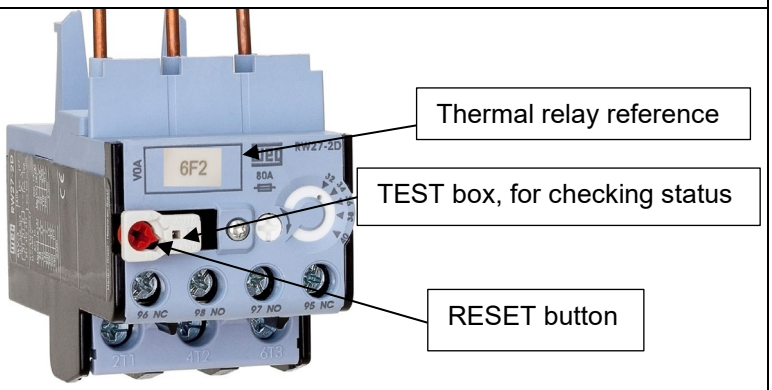
7 ALARMS

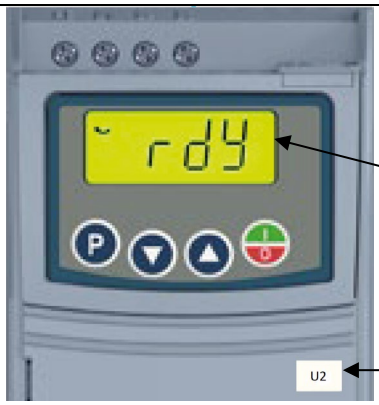
ALARMS menu shows all active alarms. You can press the DELETE ALARM button when the problem has been resolved.



7.1 Alarms list

Alarm	Possible cause	Solution
EMERGENCY STOP BUTTON	Emergency button pressed	Emergency button pressed. Release the emergency button and reset the alarm from screen. Don't use emergency button for stopping drag chain and unit, instead use "OFF" button from the MAIN menu.
	Emergency circuit damaged	Contact a Maksiwa authorised technician.
MAXIMUM TEMPERATURE	Temperature sensors plug disconnected	Check if the temperature sensor plug is correctly connected.
	Temperature sensor damaged	If the temperature plug is connected, and still screen shows asterisks instead of reading temperature, contact an authorised technician to replace the temperature sensor.
	SSR damaged	If the temperature keeps heating, above maximum temperature, disconnect the machine and contact technical service (solid state relay).
	PLC output failure	If the temperature keeps heating, above maximum temperature, disconnect the machine and contact technical service.
AIR PRESSURE	Not enough air pressure	Check if the air pressure is stable at 0.6MPa.
	Air pressure switch failure	Replace air switch.
TOO CLOSE PANELS	Not enough distance when feeding panels	Empty the machine and keep the safe distance feeding panels.
	Limit switch 20S11 failing	Replace limit switch.

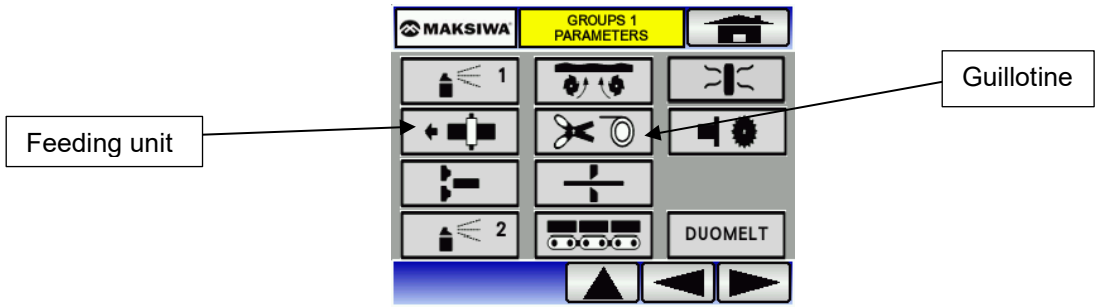
OPEN CABINS	Open cabins	Cabin open, make sure that door sensor and cabin sensor are in contact when closing.
SENSOR S30	Sensor 20S30 failing	Alarm due to S30 sensor malfunction. The fault appears because the PLC has not received the signal from the 20S30 sensor when the unit is down. To verify that, remove the compressed air from the machine, and check that the sensor turns on. You can loosen the sensor flange with a Phillips screwdriver and move the sensor, to verify that it has not moved out of position.
SENSOR S31	Sensor 20S31 failing	Verifique si el sensor S31 funciona correctamente, retirando la presión neumática de la máquina y moviendo el grupo manualmente. If the group fails at the front, because it is not able to go up, you can increase the pressure on the MR1.1 pressure gauge. If the unit fails at the rear, because it does not go down, and advances horizontally, confirm that the inductive sensor S32, located at the top of the unit, correctly reads the entire plate when the unit is up. To do this, remove the pneumatic pressure from the machine, manually raise the end-trimming unit, and move the group horizontally and verify that the sensor reads the entire plate.
SENSOR –S32	Sensor 20S32 failing	Check if the S32 sensor is working properly. To do this, remove the pneumatic pressure from the machine, manually raise the retensioner group, and move the group horizontally and verify that the sensor reads the entire plate.
Thermic relay	Thermal relay alarm due to a motor malfunction	 Locate the thermal relays in the electrical panel. Check that the TEST box is yellow (usually green). Press the RESET button to clear the fault and you can reset the alarm. Contact the technical service to solve the fault. Meanwhile, work without the unit causing the failure. 2F1: Top buffing unit. 2F2: Bottom buffing unit. 4F1: Drag chain. 5F1: Top trimmer.

		5F2: Bottom trimmer. 5F3: End trimming unit. 6F1: Main premilling (fix). 6F2: Second premilling motor (with piston).
Inverter	Low input voltage Motor failure Inverter fault Worn tools	 Locate the inverter causing the fault; you can reset it by turning off the machine for 60 seconds and turning on again. If the fault persists, contact the technical service indicating the inverter and the fault that appears on the display. U1: Top & bottom trimmer, and end trimming. U2: Drag chain and buffing motors. U4: Main and second premilling.
SELECT MODEL	Critical PLC damage	Contact technical service.

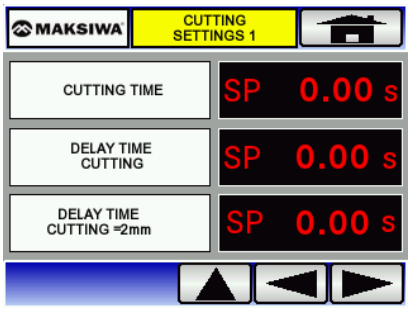
8 GROUPS PARAMETERS

Maksiwa declines all responsibility associated with any alteration of the parameters of the different groups by unauthorized personnel.

It is only possible to adjust the cutter (guillotine) and feeding unit without the authorization of an expert technician in Maksiwa machinery.



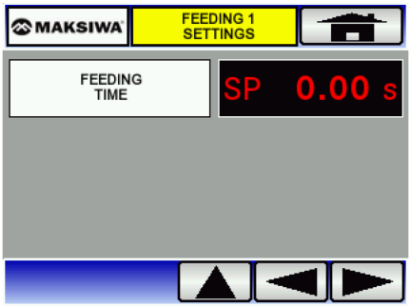
8.1 Cutter (Guillotine)



CUTTING TIME– The time the guillotine remains active.

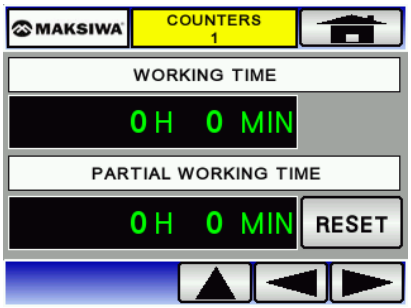
DELAY TIME CUTTING – Cut-off time for the overhang of PVC tape on rear side of panel.

8.2 Feeding unit



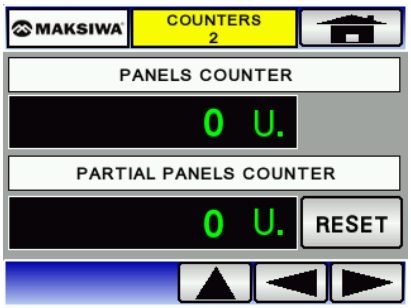
FEEDING TIME – Increasing the time, we will have more overhang of PVC tape at the front.

9 COUNTERS



WORKING TIME – Total hours machine working time.

PARTIAL WORKING TIME – Partial working time. Machine operator can reset this time with RESET button.



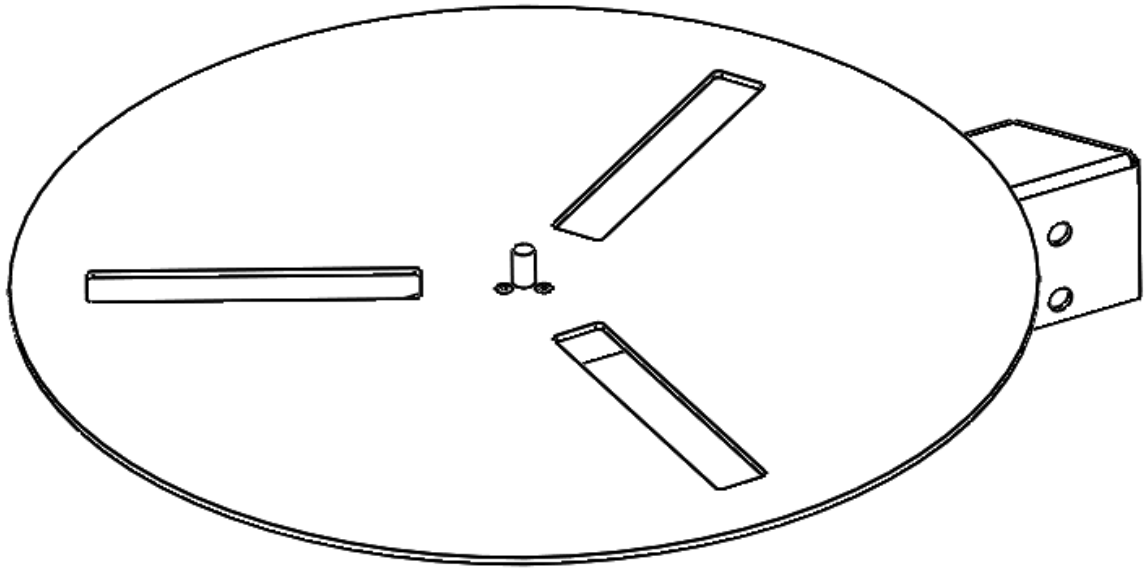
PANELS COUNTERS – Number of panels edgebanded (counted single sided)

PARTIAL PANELS COUNTERS – Number of panels egebanded. Machine operator can reset this counter with RESET button.

10 LANGUAGE

Select the interfance language from LANGUAGE menu.

MAKSIWA CBC.P
COIL HOLDER

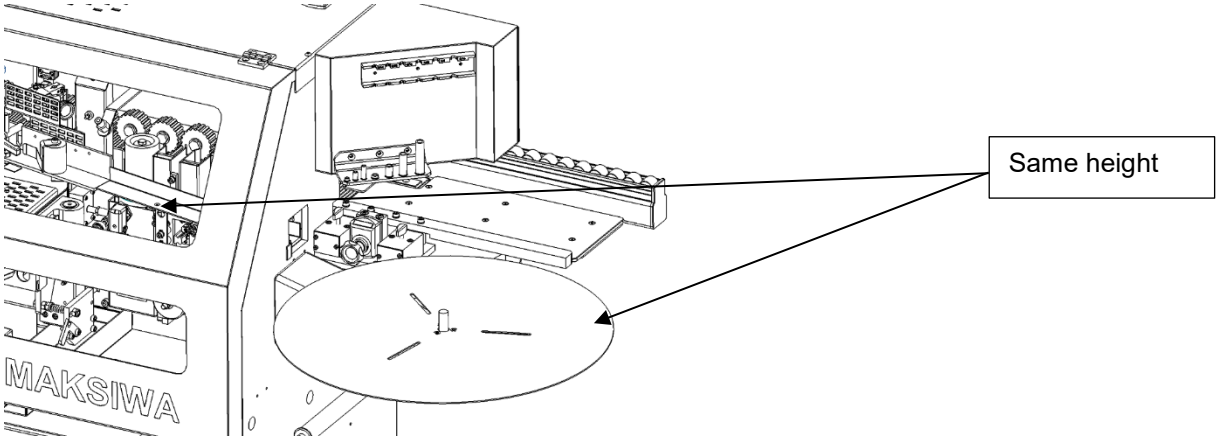


Unit: MAKSIWA CBC.P Coil holder
Revision: 00 05/2023

1 UNIT SCOPE AND DESCRIPTION

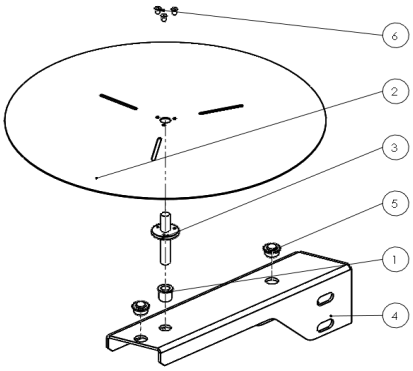
The coil holder supports edge while working. This unit attached at the input of the machine. For a secure shipping, we dissemble this unit.

2 ADJUSTMENT



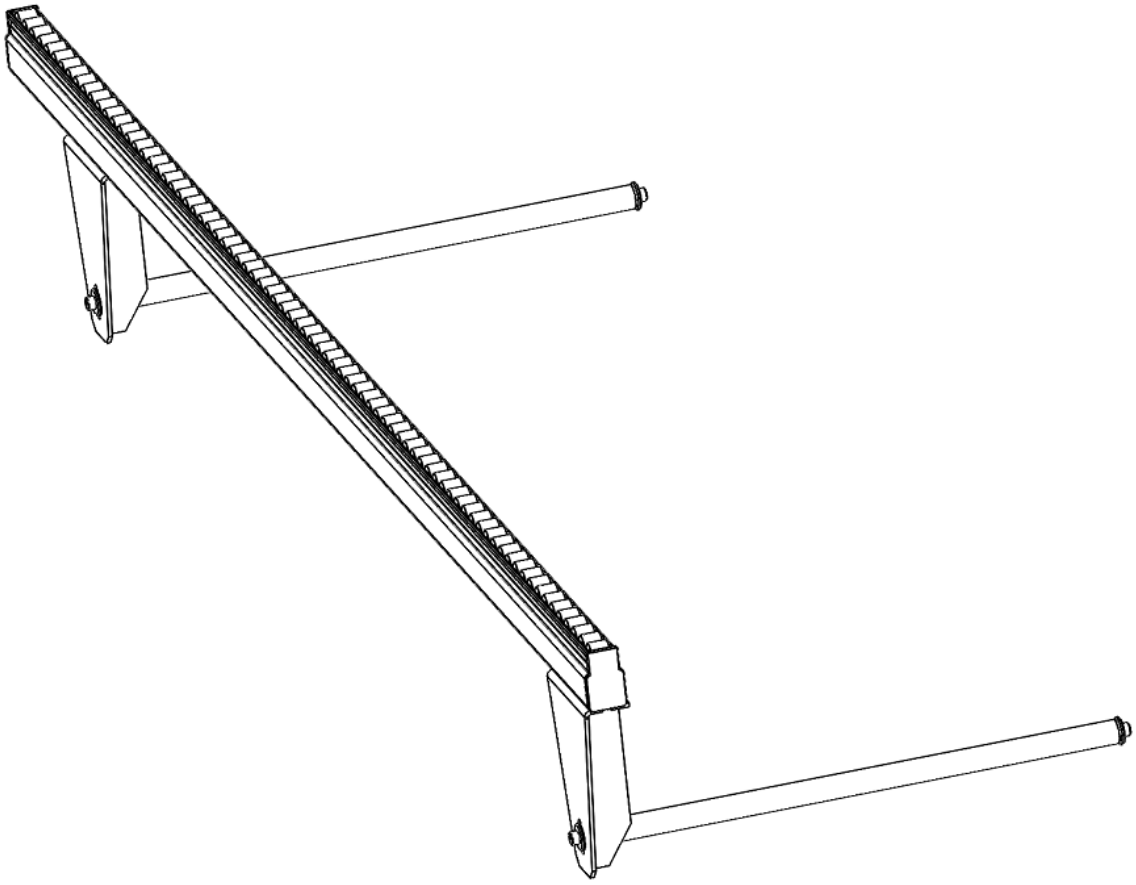
Loosen bolts attaching the coil holder and position it in the same height as feeding tray inside the machine cabin, to ensure a smooth movement of the edge tape.

3 UNIT COMPOSITION



1800050 Coil tray CBC.P			
#	**Qty.**	**Description**	**Reference**
1	1	Selfoil casket Tipo B 16-22-25,28-3	102000229
2	1	Disc D590	401006147
3	1	Coil tray shaft	404001187
4	1	Support	407000286
5	2	Sliding rollers SPS 15 B	5002820
6	3	Flathead bold DIN7991, M6 X 12 Thread:12mm	6320601202

MAKSIWA CBC.P SUPPORT APRON EXTENSIBLE



Unit: MAKSIWA CBC.P Apron extensible
Revision: 00 05/2023

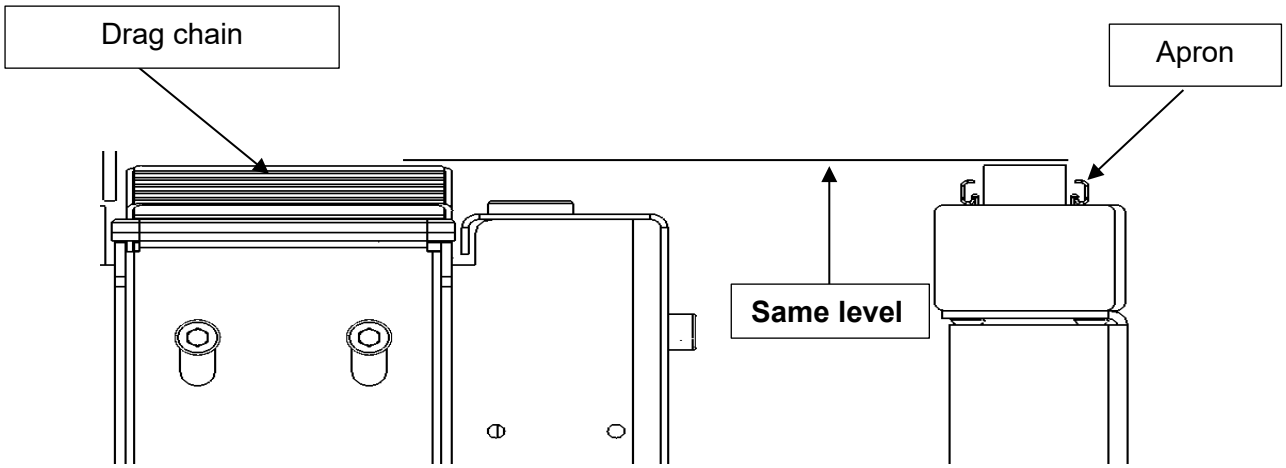
1 UNIT AIM AND DESCRIPTION

The function of the apron group is to help hold the panel correctly on the same level as the drag chain and slide it easily.

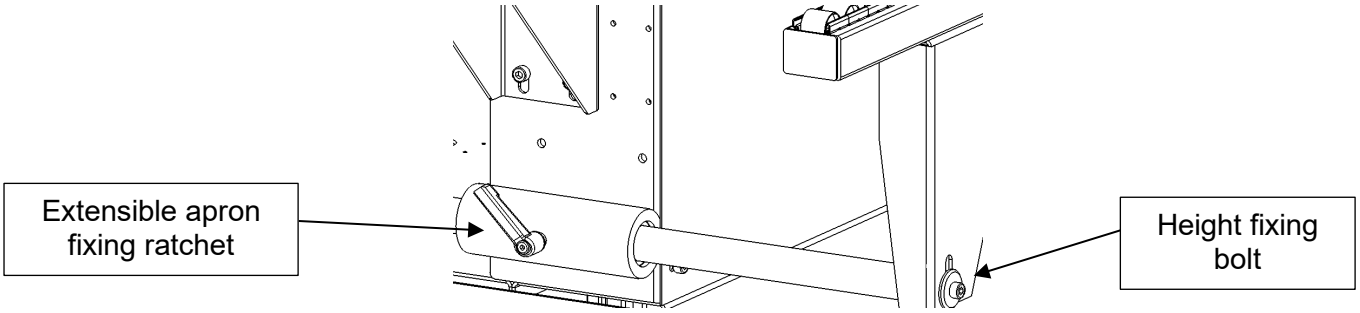
Due to the apron length and for and easy transport, we supply this unit disassembled.

2 UNIT ADJUSTMENT

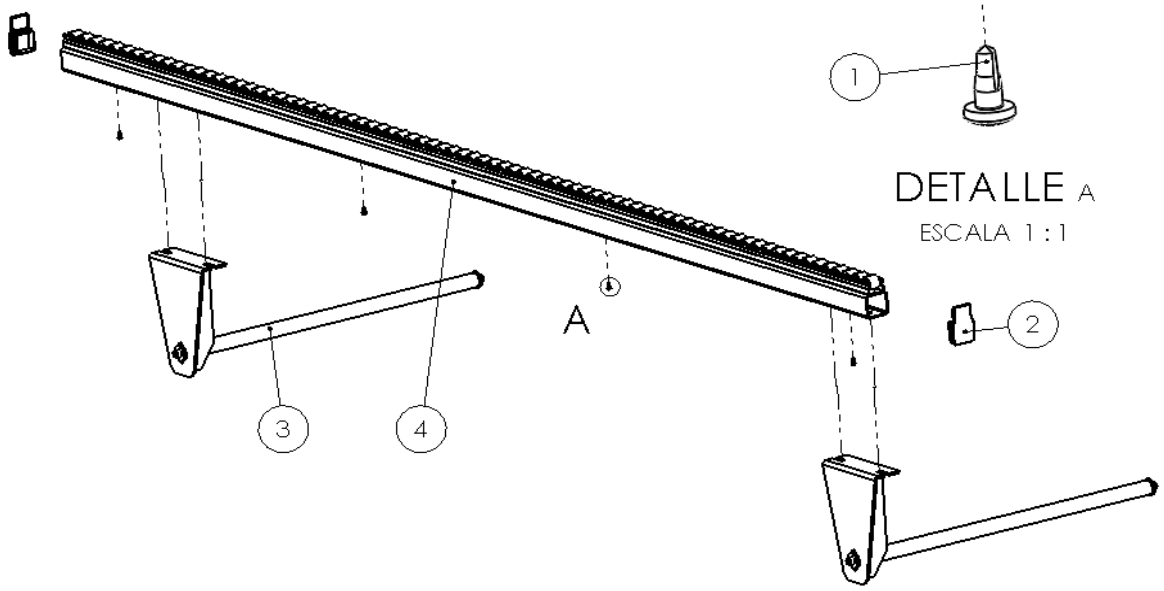
Before starting working, check that the apron is at the same height as the drag chain. On the contrary, the panel will enter tilted causing groups malfunction and obtaining an incorrect finish.



Adjust the height using height-fixing bolts on both sides of the apron arms. In addition, for adjusting the apron extension, lose apron-fixing ratchet.

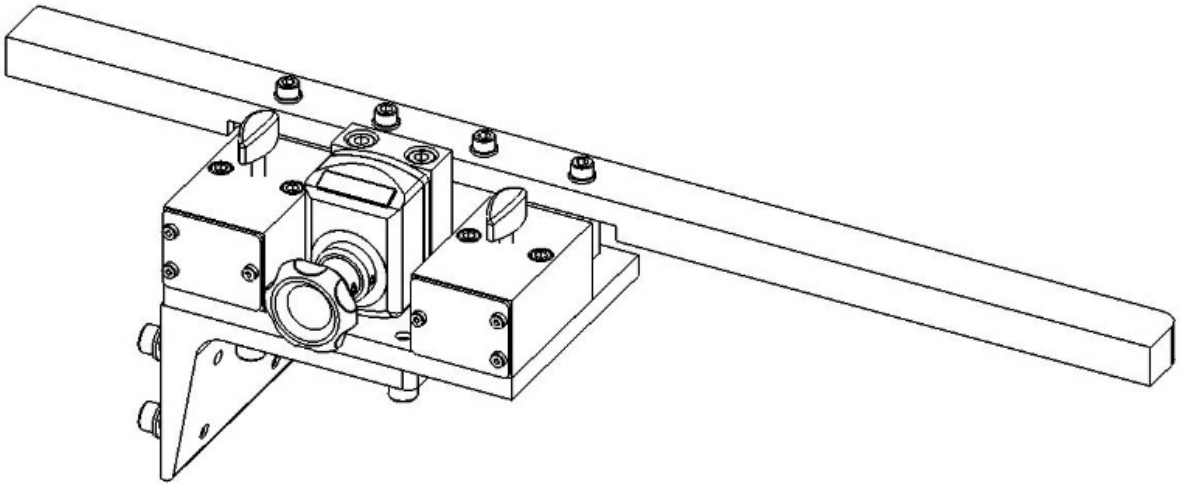


3 UNIT COMPOSITION



Delantal regulable 2000259			
#	**Qty.**	**Description**	**Reference**
1	4	DIN 7504 4,8X13CR3	102000658
2	2	Side cover	401006095
3	2	Support arm	5002728
4	1	Apron rail	5005185

MAKSIWA CBC.P INFEEDING FENCE



Unit: MAKSIWA CBC.P Infeeding fence
Revision: 00 05/2023

1 AIM AND UNIT DESCRIPTION

The infeeding fence guides the panel into the machine and ensures that it maintains a uniform and parallel path with the unit of the machine throughout the edgebanding process.

In the case of the Maksiwa CBT.P machine, with mobile infeeding fence, you can adjust the depth of the unit by loosening the ratchets and adjusting SIKO dialer, in this way, the premilling unit will remove only the thickness set.

2 MAINTENANCE

Before starting preventive maintenance, disconnect the machine electrically and pneumatically. Perform the maintenance, only if you have received proper training from a qualified technician.

- Clean the fence daily with a mild cleaning agent.
- Daily remove (vacuum) wood chips and edge trim that may gather near the fence.
- Periodically check that the panel enters the machine without drifting.

When placing a panel at the machine entrance make sure that the panel rests fully on the fence.

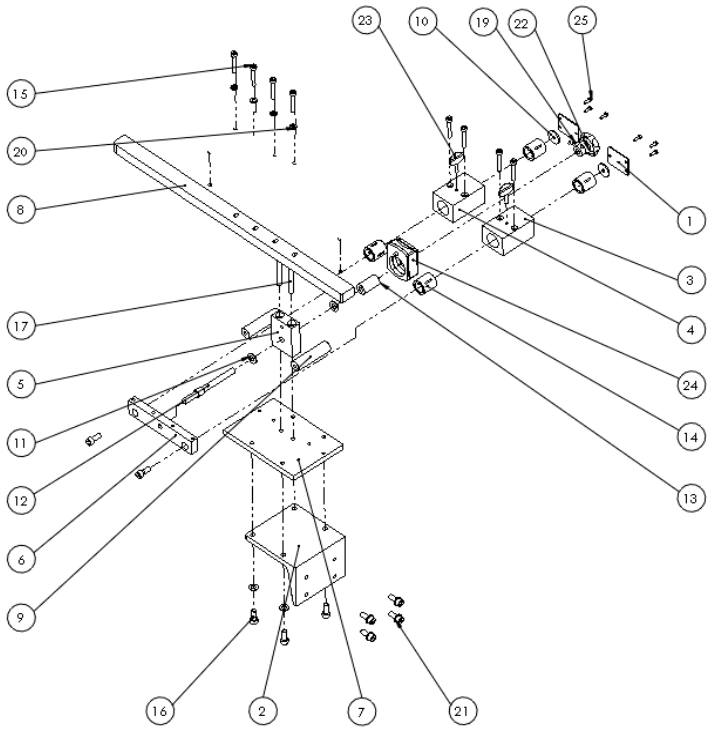
Whenever the panel advances through the machine going out of its way (separating from infeeding fence) this may indicate that there is a problem in the infeed fence.

Follow these steps to determine fence alignment with the panel is correct:

- Deactivate all units, except for the gluepot, which you deactivate it manually with the cancellation lever.
- Clean chain pads and wheels.
- Make sure that the fence is 37mm away from the chain pad edge.
- Feed 3 long 300x500mm panels by their short side and stop the machine so that one panel stays at the beginning, another in the middle and the last one at the end of the machine; check that the pressure beam exerts a uniform pressure on the 3 panels.
- Feed a long panel. Make sure that this panel has a perfect cut, since if the panel suffers from “banana effect” you will not be able to determine if the infeed fence has a problem or not.
- Stop the long panel matching the end of the panel with the start of the infeed fence.
- If you notice a gap between the panel and the infeeding fence, it means that the fence out of parallelism with the drag chain.

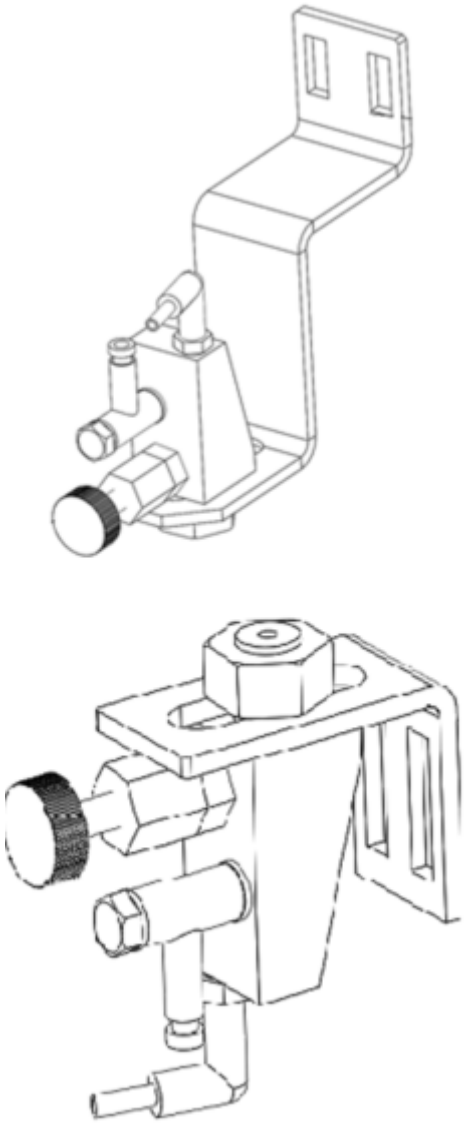
Only a trained technician should adjust the infeeding fence.

3 UNIT COMPOSITION



0200100 Infeeding fence Maksiwa CBC.P			
#	**Qty.**	**Description**	**Reference**
1	2	Guide block protection	401000517
2	1	Support bracket	402000193
3	1	Guide block	403000275
4	1	Guide block	403000275
5	1	Siko support infeeding fence	403000281
6	1	Siko support infeeding fence	403002225
7	1	Support block adjustment	403002226
8	1	Handrail Infeeding fence XL	403002327
9	2	COLUMNA GUIA	404000180
10	2	Washer top	404000181
11	2	Arandela laton Ø20 x Ø10 x 2	404000182
12	1	SIKO shaft infeeding fence	404000183
13	1	SIKO indicator socket	404000184
14	4	linear ball bushing LBBR20	6172030011
15	8	Allen bolt DIN 912 M6 x 40 (thread 40mm)	6310604001
16	10	Allen bolt DIN 912 M8 x 20 (thread 20mm)	6310802001
17	2	Allen bolt DIN 912 M8 x 70 (thread 70mm)	6310807001
18	1	Grub scren flat DIN913 M5 X 10	6330501001
19	1	Grub scren fla DIN913 M6 X 6	6330600601
20	4	Grower DIN 125 M6	6610600001
21	8	Grower DIN 125 M8	6610800001
22	1	Ratchet 1132 D45	9250105901
23	2	Knob M6 x 25	9250476301
24	1	Positioner DA09	9350921051
25	6	DIN 7984 - M4 x 12 --- 9.9N	

MAKSIWA CBC.P
SPRAY UNIT



Unit: MAKSIWA CBC.P Spray unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

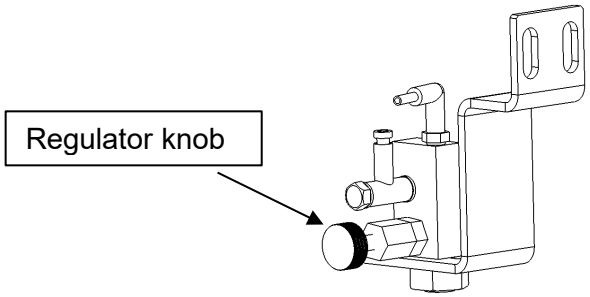
The application area is located before premilling unit and uses the LPZ / II release agent. The application on the top and bottom side of the panel prevents glue residues from adhering on the surface. This unit works with premilling

2 SCREEN SELECTION AND ACTIVATION

	Unit ON	Unit OFF
CBT.P		

3 UNIT ADJUSTMENT

The unit has pressure regulators to regulate the pressure of the spray liquid. "Pneumatic diagram" for necessary pressure for the unit
To regulate the output of the spray liquid, turn the regulating knob for more or less quantity depending on the needs of work.



4 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

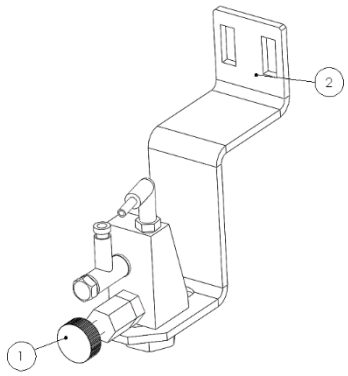
Only trained personnel can perform these Operations.

4.1 General maintenance

- Check that the condition of the air tubes is correct.
- Check the condition of the hoses, and in case of detecting any deterioration, replace them as soon as possible to avoid any loss of liquid or air.
- Check the correct orientation of the nozzles towards the wood.
- Check the liquid level in the bottle.

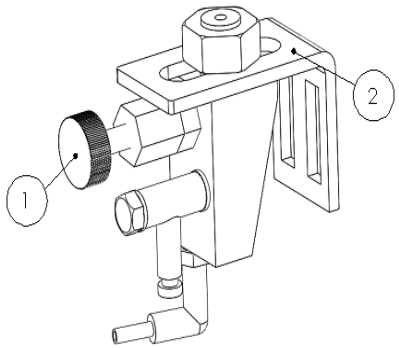
5 UNIT COMPOSITION

Top spray nozzle



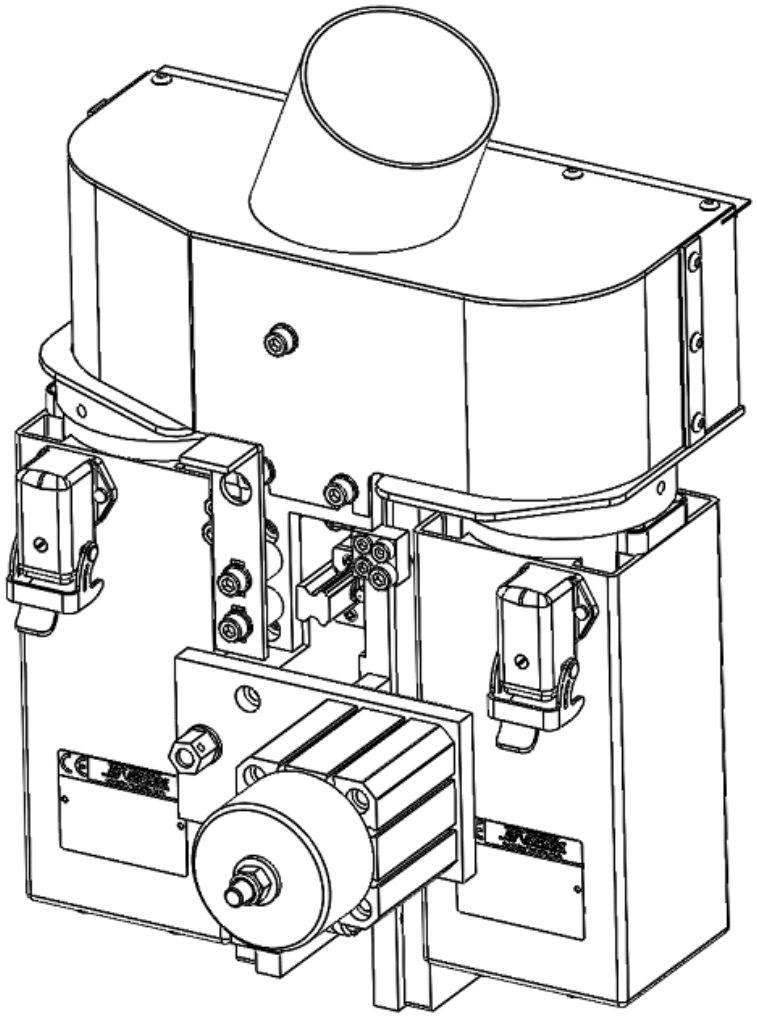
Riepe Sup 1600006			
#	Qty.	Description	Reference
1	1	Riepe spray nozzle	100000019
2	1	Top support bracket	401001317

Bottom spray nozzle



Riepe inf 1600007			
Nº	Cant.	Descripción	Referencia
1	1	Pistola spray Riepe	100000019
2	1	Escuadra soporte inferior	401001316

MAKSIWA CBC.P PREMILLING UNIT PF2



Unit: MAKSIWA CBC.P Premilling unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The job of the premilling unit is to remove all the irregularities that the panel may present in the profile. It is composed of two high-frequency motors, which to avoid chipping at both lead and trail of panel, rotates clockwise for the lead, and anti-clockwise for the rear side.

	Frequency (Hz)	Speed (rpm)	Main motor (kW)	2nd motor (kW)
PF-2	150	9000	0.75	0.55

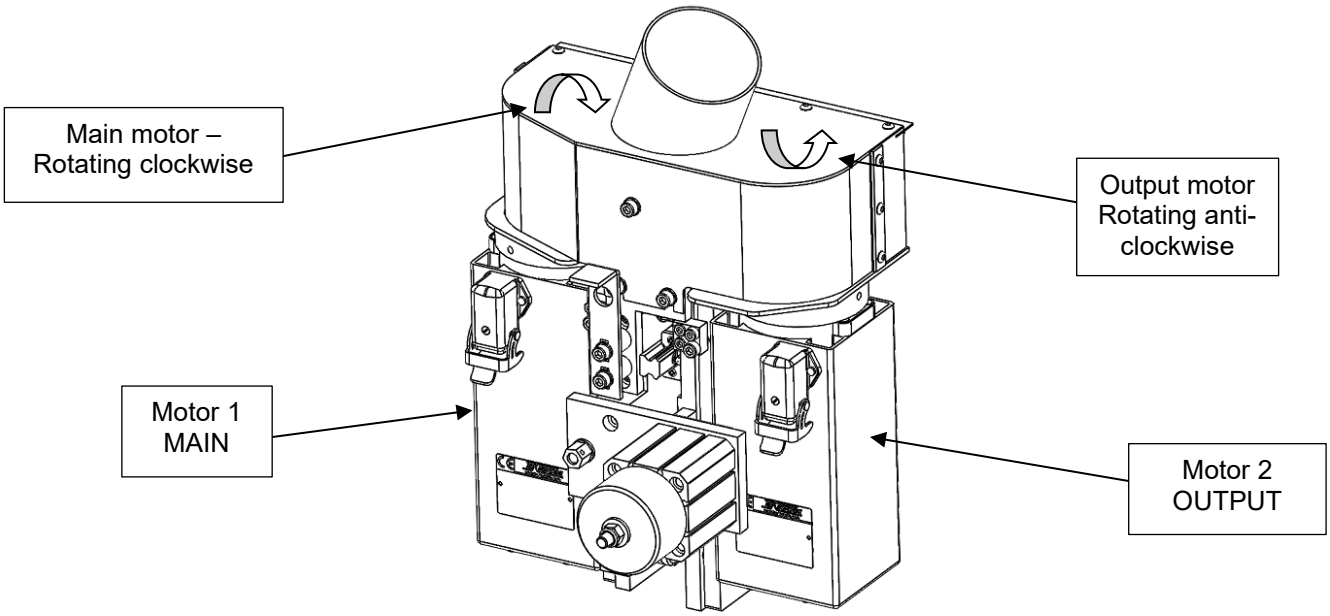
2 WORK DESCRIPTION AND ADJUSTMENT

2.1 Screen selection

ON	OFF
	

2.2 Work description

The main motor, rotating clockwise, works from the beginning of the panel to almost the end. The output motor, rotating anti-clockwise, works on the final part of the panel, equalling the work done by the main motor. In this way, the unit works perfectly from the beginning to the end of panel, without any uneven finish.

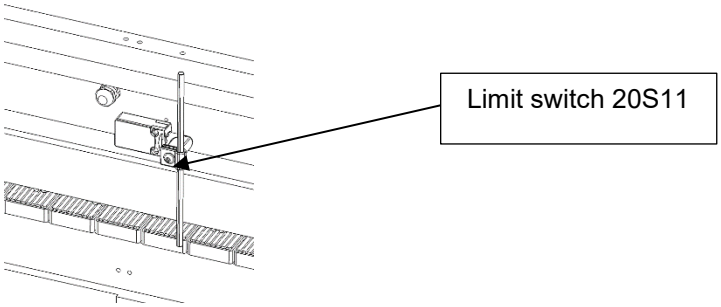


2.3 Sensors, electric and pneumatic composition

This configuration detailed below might change. Please check the update electric and pneumatic diagram to confirm the correct sensors, electric and pneumatic components.

2.3.1 Sensors

The unit only works with the limit switch 20S11 sensor located at the input of the machine, which gives the signal to act the output motor.



2.3.2 Electric composition

	Motor	Inverter
Main motor	6M1	U4
Output motor	6M2	

2.3.3 Pneumatic composition

	Electroválvula
Motor salida	25Y7

The PLC actives the solenoid of the output motor (check the pneumatic diagram to know the nomenclature of the solenoid valve) when there are about 20mm left on backside of the panel. Thus, almost the entire board is premilled with the main motor and only a small part with the rear motor, thus achieving a perfect finish.

2.4 Unit adjustment

Security warning

A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

The premilling unit has cutting blades that can cause serious damage under improper use of the unit.

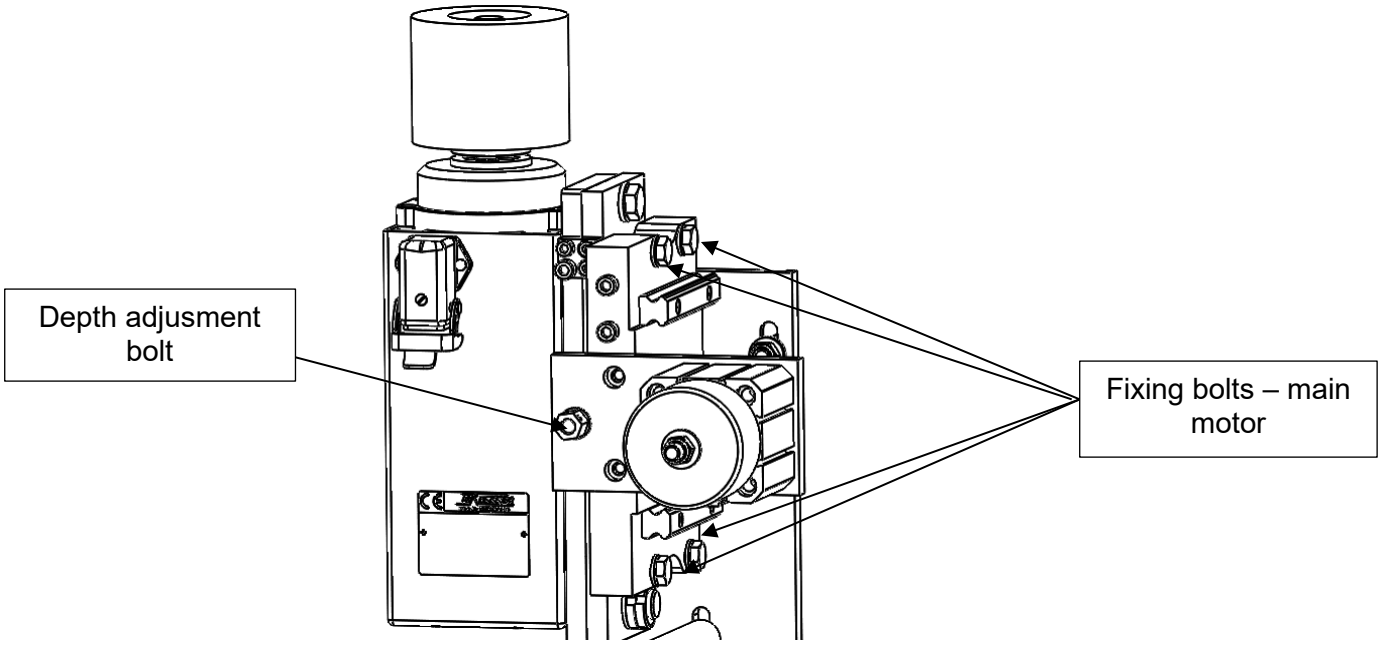
Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling, disconnection of the unit is essential.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

2.4.1 Depth adjusment

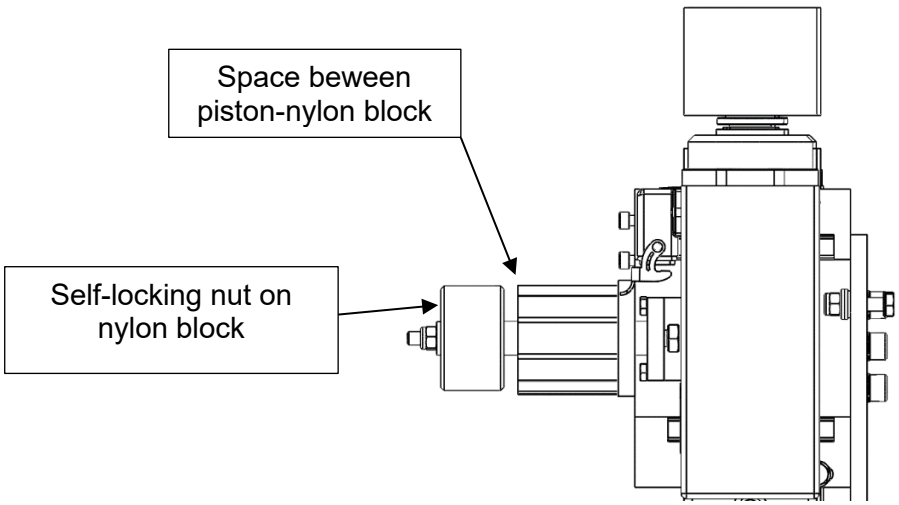
2.4.1.1 Main motor

In the premilling unit PF-2, main motor is the reference, thus is it set at 0 point (0mm).



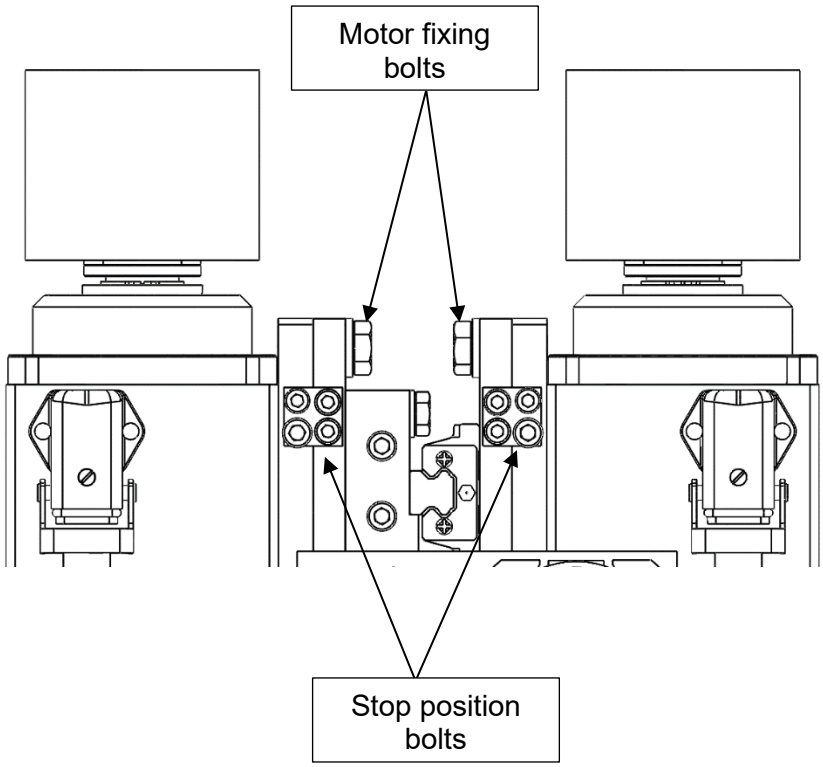
Adjust the motor losing the unit fixing bolts and acting accordingly on the depth adjustment.

2.4.1.2 Output motor



Loosen the self-locking nut and turn the knob anti-clockwise, increasing the piston separation with the nylon stop, so the unit will lower more.

2.4.2 Tilt adjustment



Adjust the unit angle, losing the motor fixing bolts and moving the unit with stop position bolts.

3 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

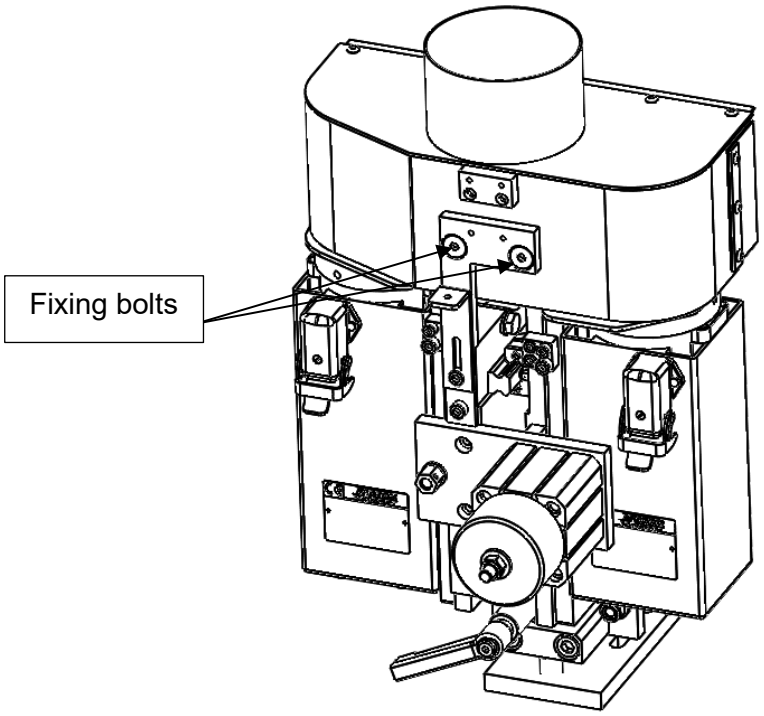
Only trained personnel can perform these operations.

3.1 General maintenance

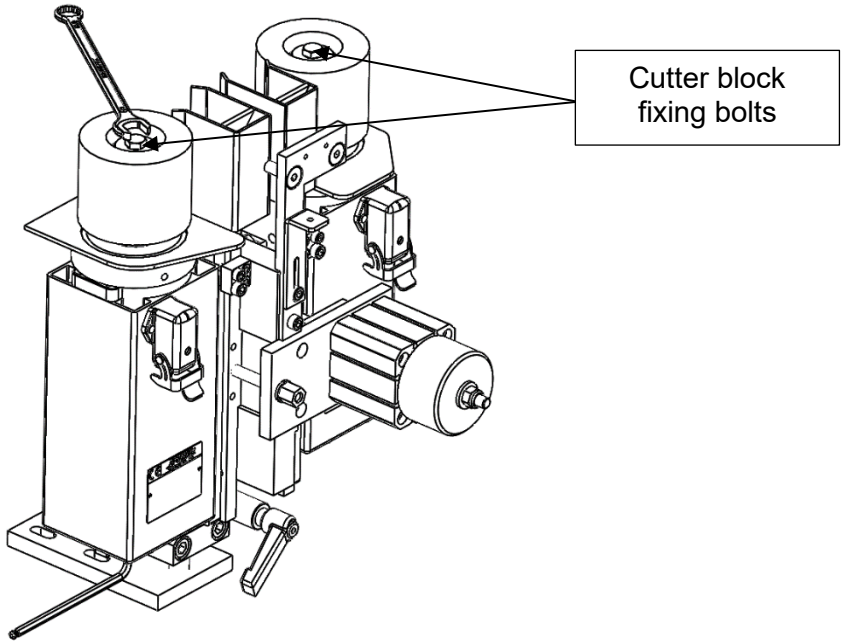
- Daily remove (vacuum) dust that may be near the unit.
- Grease the linear guides. Perform this operation every 3 months.
- Check manually daily, without pneumatic pressure, that the motor moves correctly, without any obstruction.

3.2 Tool change

- Remove the tool cover taking out the fixing bolts.

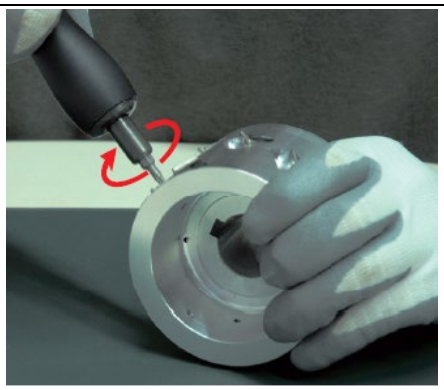
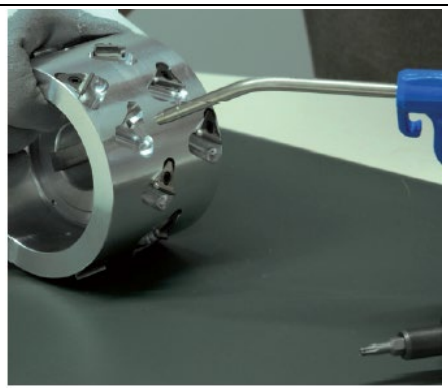
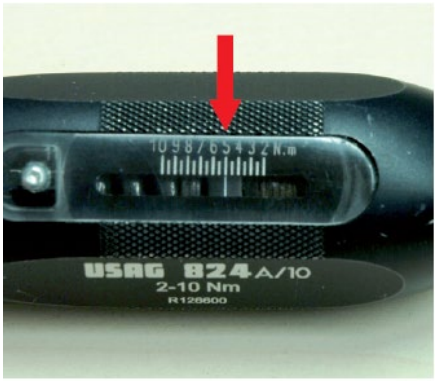
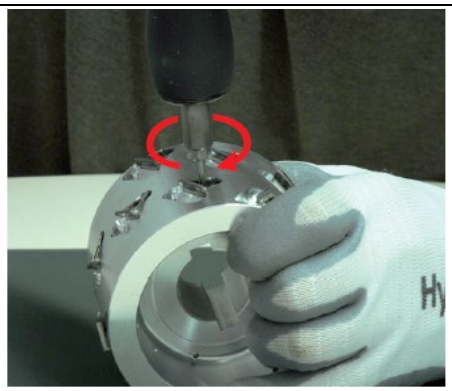


- Lock the motor rotation from bottom side with an Allen key of 6mm.
- Keep in mind that the main motor shaft has inverted thread due to its rotation.
- Use a 13mm spanner (or socket) to lose the tools fixing bolts.

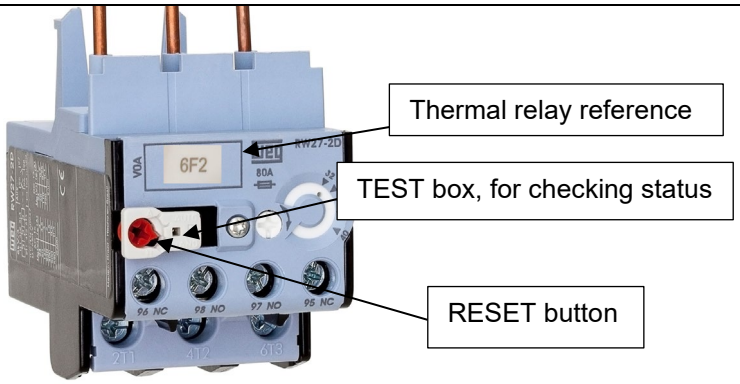


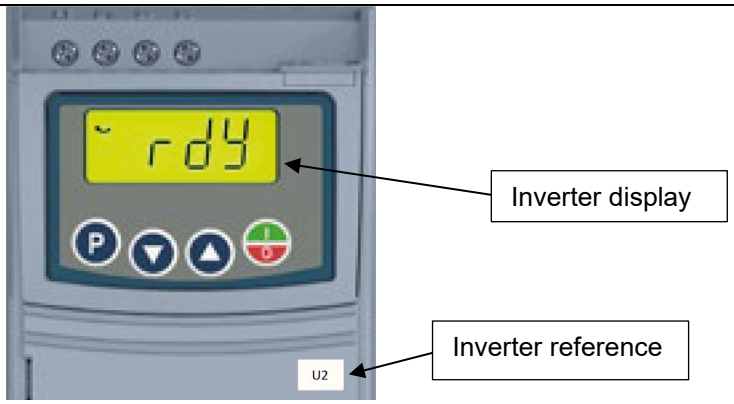
- Now you should be able to remove the tools and replace.

3.3 Inserts change

1	Clean the cutter block to remove any residue of glue or dust.	
2		Loosen and remove the screws on the blades you want to replace using a Torx 15 wrench. The screws may be too tight from use, never force or damage the screws and contact service.
3		Carefully clean the surface of the blade insert with compressed air.
4		Set the torque wrench to 5N·m.
5		Insert the blade ensuring the correct position and secure the screw with the torque wrench.

4 ALARMS

<table>
<tr><th>Alarm</th><th>Possible cause</th><th>Solution</th></tr>
<tr><td>Thermic relay</td><td>Thermal relay alarm due to a motor malfunction</td><td> 

Locate the thermal relays in the electrical panel. Check that the TEST box is yellow (usually green). Press the RESET button to clear the fault and you can reset the alarm. Contact the technical service to solve the fault. Meanwhile, work without the unit causing the failure.
6F1: Main premilling (fix).
6F2: Second premilling motor (with piston).</td></tr>
<tr><td rowspan="4">Inverter</td><td>Low input voltage</td><td rowspan="4"> 

Locate the inverter causing the fault; you can reset it by turning off the machine for 60 seconds and turning on again. If the fault persists, contact the technical service indicating the inverter and the fault that appears on the display.
U4: Main and second premilling.</td></tr>
<tr><td>Motor failure</td></tr>
<tr><td>Inverter fault</td></tr>
<tr><td>Worn tools</td></tr>
</table>

5 ERRORS AND SOLUTIONS

Before making any adjustments to improve the finish, check the following:

- Correct height of the pressure beam: Check that the pressure beam grips well the panel, and it does not move in its path.

- Correct guiding of the drag chain with a long panel (+ 1.50m): Check with a long panel that it follows its path with infeeding fence. If the board separates at the front, or back, it may result in an incorrect finish.

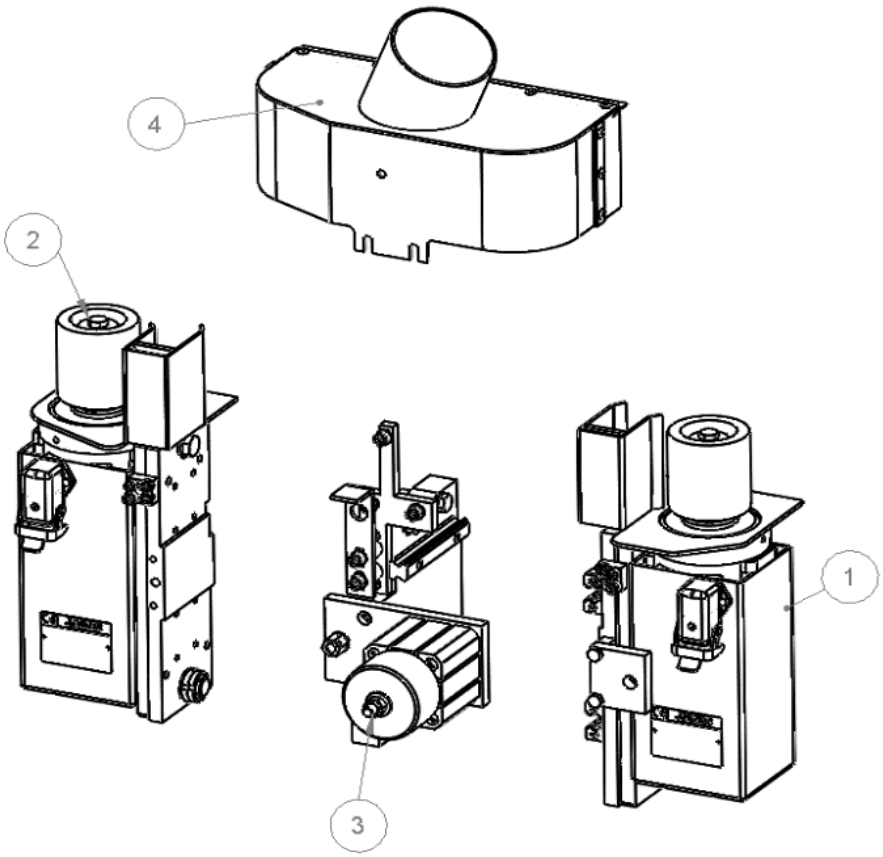
- Free movement: Remove the pneumatic pressure of the machine, and check the motor of the first premilling. It must move freely.

- Continuous pressure: Reconnect the pressure and check that it maintains at 0.6MPa during work.

Fallo	Posibles causas	Soluciones
Premilling in angle (differente from 90º)	Incorrect apron height	If the apron is not on the same level as the drag chain, it may affect the finish of the premilling unit. To do this, check the correct height by consulting the attached manual.
	Motor tilted	Contact an authorized technician to verify and solve the fault.
Uneven finish	Linear bearing not clean	Without pneumatic pressure, check that the second motor moves freely. If necessary, clean and grease the linear bearings.
	Banana effect in panel cut	Check (especially on long panels) that cutting the board does not release the surface tension, causing a deflection called the banana effect. To fix it, you can double trim the panel.
	Unaligned infeeding fence	Check with a long panel that, when fed into the machine, it is does not separate from infeeding fence. If so, consult the manual attached of the infeeding fence to solve the fault.
Chipping on top/bottom	Worn tools	Check, and if necessary, replace the cutting tools.

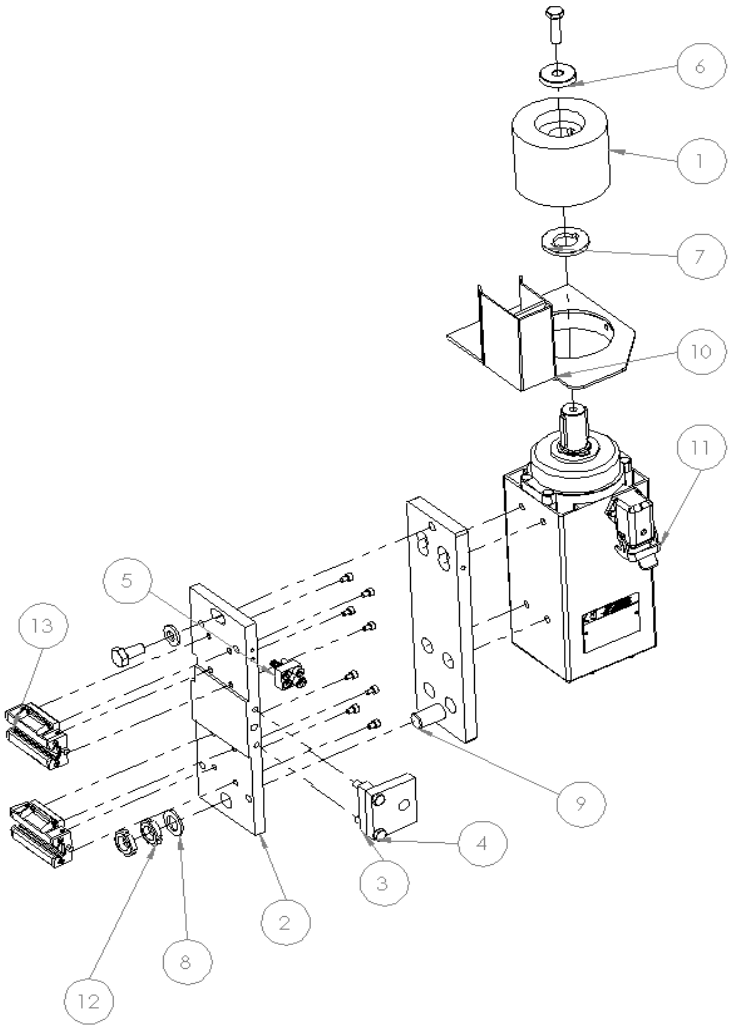
6 UNIT COMPOSITION

6.1 Complete unit



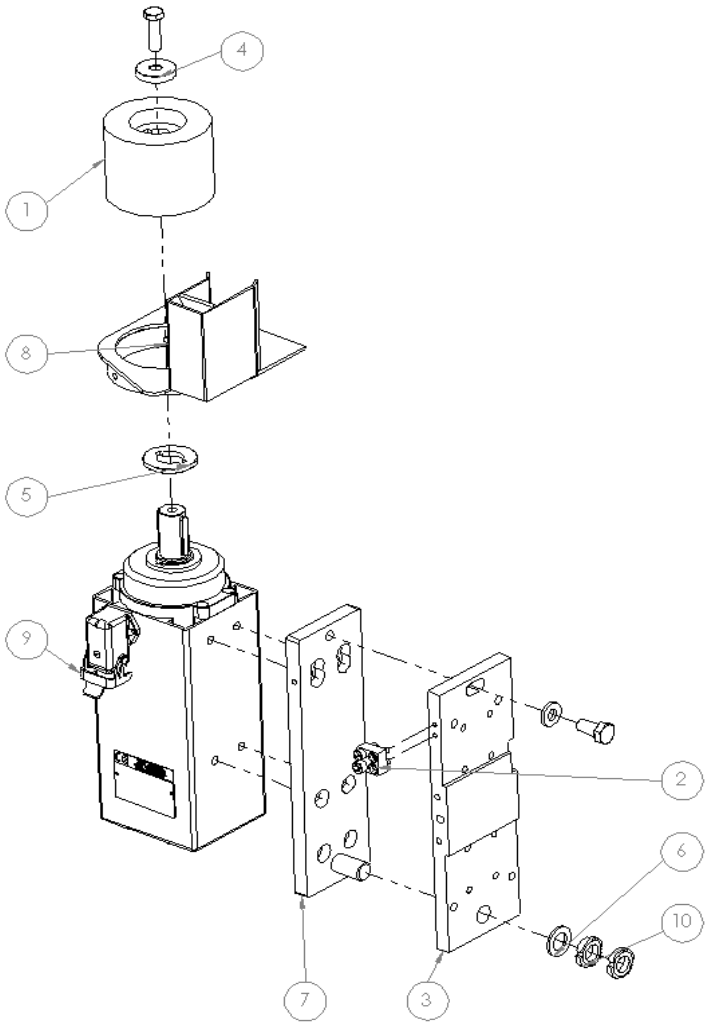
Perfiladora PF-2 0400067			
#	**Qty.**	**Description**	**Reference**
1	1	Output motor assembly	5003566
2	1	Main motor assembly	5003567
3	1	Support assembly	5005177
4	1	Dust collector	5005178

6.2 Output motor assembly



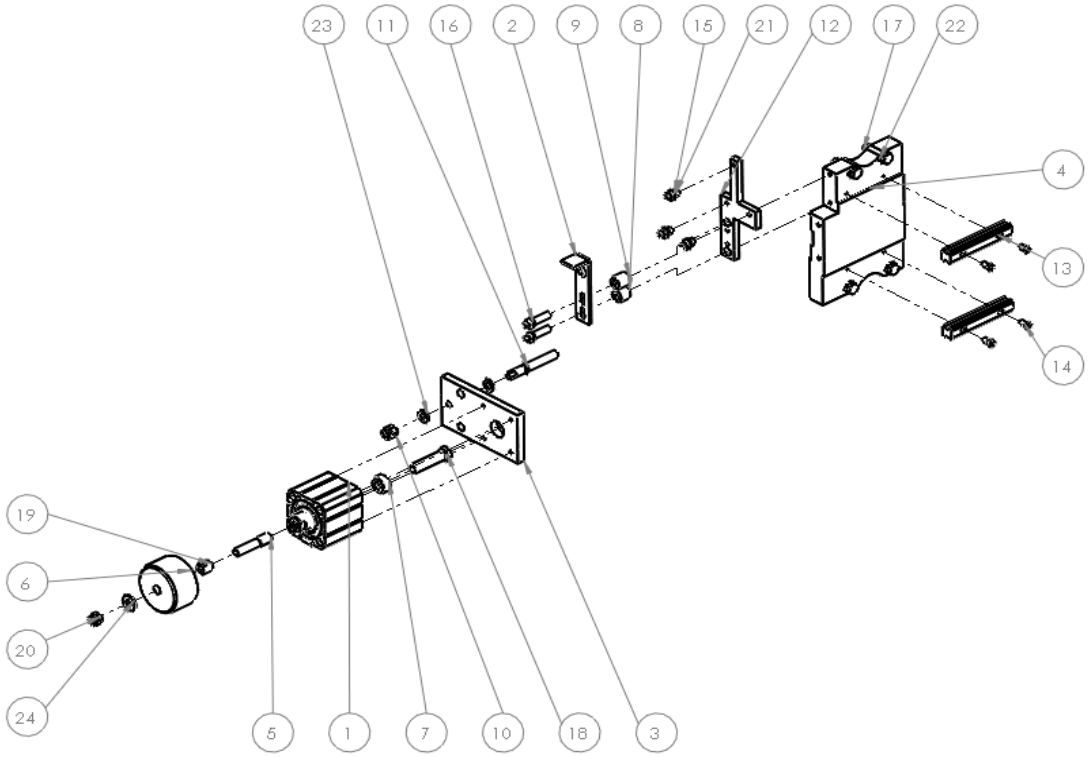
5003566 Corte trasero			
#	**Qty.**	**Description**	**Reference**
1	1	80x65xd20 Right Diamond tools	102000204
2	1	Guide Base	403000242
3	1	Link cylinder distancer	403000257
4	1	Cylinder link	403000260
5	1	Motor regulation top simetry	403000308
6	1	Whaser cutter	404000144
7	1	Bottom Spile	404000165
8	1	Brass Washer 25x15x2	404000195
9	1	Motor plate welding assembly	5000173
10	1	Aspiration base box Entry	5002567
11	1	Motor Tecknomotor 0.55 KW PN 41470307	5801501221
12	2	KM2 Nut	6151020001
13	2	Guideline 100mm skid	6170001001

6.3 Main motor assembly



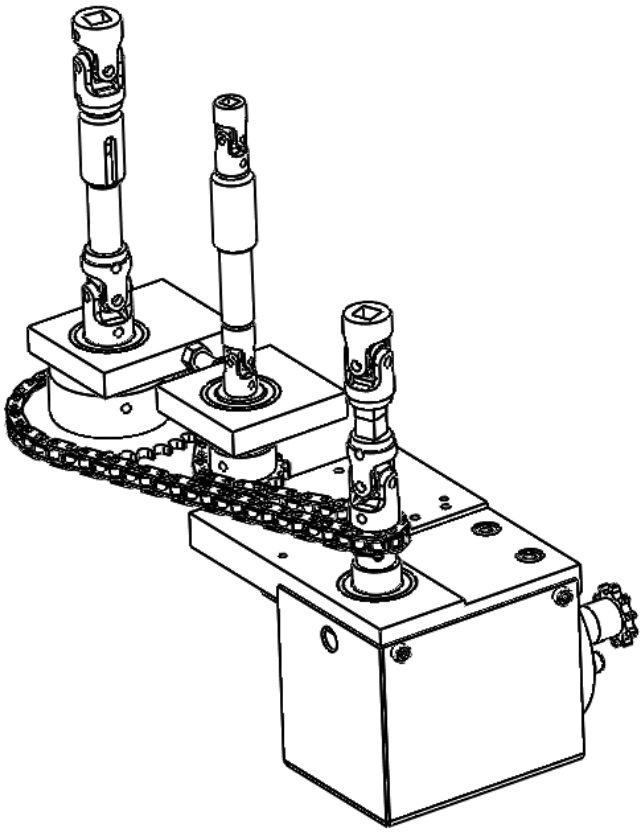
5003567 Corte delantero			
#	**Qty.**	**Description**	**Reference**
1	1	60x65xd20 Left Diamond tools	102000205
2	1	Motor regulation top	403000261
3	1		403002186
4	1	Whaser cutter	404000144
5	1	Bottom Spile	404000165
6	1	Brass Washer 25x15x2	404000195
7	1	Motor plate welding assembly	5000173
8	1	Exit Aspiration base box	5002569
9	1	Motor Tecknomotor 0,75 Kw 41470305	5801501211
10	2	KM2 Nut	6151020001

6.4 Support assembly



Conjunto soporte 5005177			
#	**Qty.**	**Description**	**Reference**
1	1	Pneumatic cylinder (Ref. SID 50x10)	101000044
2	1	Feeding tray support	401006073
3	1	Cylinder support plate	403000361
4	1	Unit support	403002805
5	1	Cylinder stroke adjustment pin	404000153
6	1	regulation knob	404000155
7	1	cylinder separator	404000159
8	1	Spacer	404000169
9	1	Spacer 19mm	404000403
10	1	hexagonal knob	404000583
11	1	Horizontal regulation axis	404001397
12	1	Dust collector support	407000342
13	2	Guide rail (Ref. HGR15R100C HIWIN)	6170001101
14	4	Allen bolt DIN 912 M4 x 10 (Thread 10mm)	6310401001
15	3	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
16	2	Allen bolt DIN 912 M6 x 30 (Thread 30mm)	6310603001
17	4	Hexagonal screw DIN933, M8 X 35	6360803501
18	1	Hexagonal screw DIN933, M10 X 50	6361005001
19	1	threaded insert helicoil M8	6393302081
20	1	SELF-LOCKING NUT DIN982, M8	6420800001
21	5	Washer DIN 125 M6	6610600001
22	5	Washer DIN 125 M8	6610800001
23	1	Washer Latón M8	6610800201
24	1	Washer DIN 6902 - A 9.3	

MAKSIWA CBC.P
GEARBOX GENERAL MANUAL



Unit: MAKSIWA CBC.P Gearbox (gluepot, feeding and side pressure roller)
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

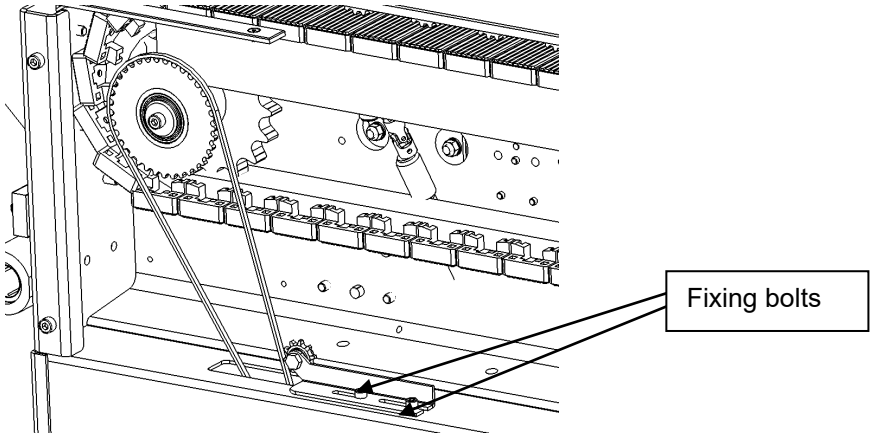
The gearbox composed of all the elements located immediately below the gluepot. It is composed of three bearings, one for the gluepot, one for the feeding tray and one for the big pressure roller.

It has the function of transmitting in a synchronized way the movement of the drag chain to the gluing roller and to the tape feeding system and to the first pressure roller.

2 TRANSMISSION CHAIN ADJUSTMENT

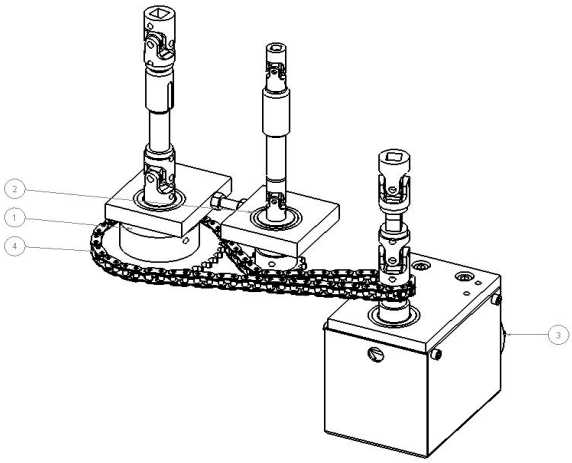
Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions

To tension the transmission chain, first remove the drag chain guard cover. Then, loosen and the two fixing bolts in the optimal position to obtain a correct tension.



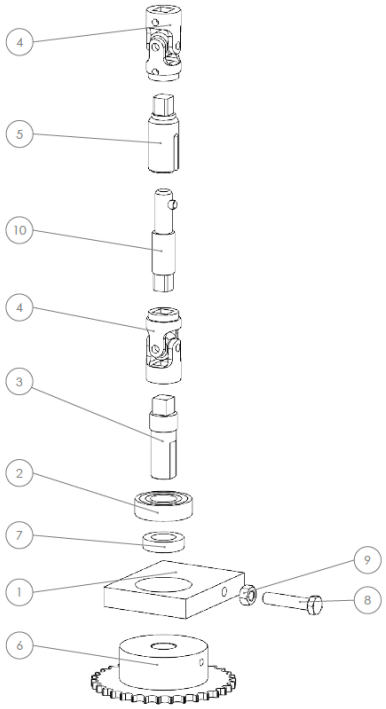
3 UNIT COMPOSITION

3.1 Complete assembly (03000074)



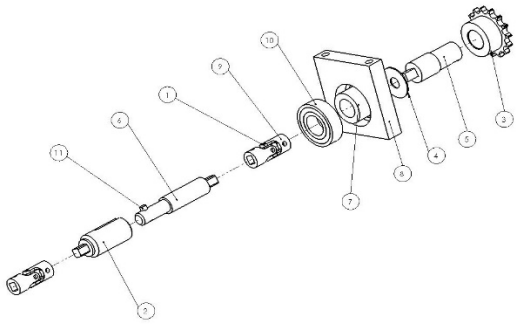
0300074 Gearbox			
#	Qty.	Description	Reference
1	1	Pressure roller transmission	5005585
2	1	Feeding tray transmission	5004031
3	1	Gluepot transmission	5000665
4	1	Gearbox chain (68 steps)	5004035

3.2 Pressure rollers transmission (5005585)



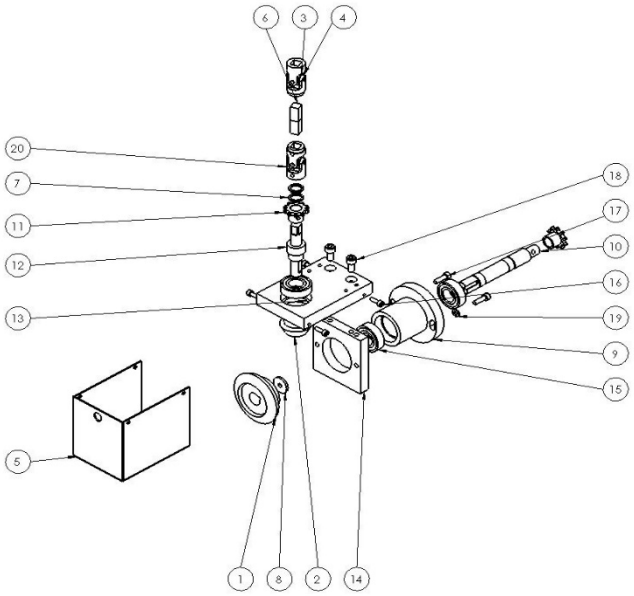
Pressure rollers transmission 5005585			
#	**Qty.**	**Description**	**Reference**
1	1	Holding plate	409000109
2	1	bearing 6004-2RS	6116004301
3	1	Roller shaft drive	404000254
4	2	Universal joint	5412221201
5	1	Slider	404000427
6	1	Sprocket 3/8 Z34	404000429
7	1	Interval washer	404000433
8	1	Hex nut DIN933, M8X 40	6360804001
9	1	Hex nut DIN934, M8	6410800001
10	1	Shaft	404000198

3.3 Feeding tray transmission (5004031)



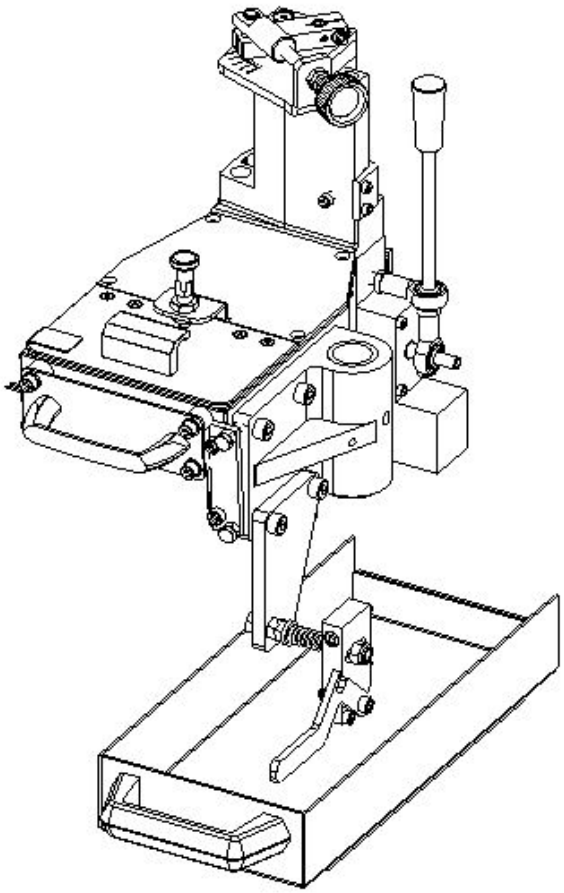
Transmision bandeja alimentación adaptación 5004031			
#	Qty.	Description	Reference
1	2	Universal joint F16	
2	1	Feeding slider	404000417
3	1	Sprocket 3/8 Z15	404000431
4	1	Washer bearing protection	404000434
5	1	Eje de alimentación adpatación	404001540
6	1	Feeding shaft	404001541
7	1	Spacer washer	404001542
8	1	Base plate	409000111
9	4	Universal joint	5411620801
10	1	Bearing 6004-2RS	6116004301
11	1	Splied pin DIN1472 6 x 16	6570601601

3.4 Gluepot transmission (500665)



Transmision calderin 5000665			
#	Qty.	**Description**	**Reference**
1	1	Angular transmission spocket	1000107002
2	1	Angular transmission spocket	1000111002
3	2	Universal joint 1000418dado25	
4	2	Universal joint 1000418pieza25A	
5	1	Gearbox protection box	401000952
6	1	Gluepot transmission shaft	403000531
7	2	Brass washer	404000365
8	1	Washer	404000419
9	1	Bearing supports	404000420
10	1	Chain transmission shaft	404000422
11	2	Sprocket Z-10	404000424
12	1	Gluepot transmission shaft	404000430
13	1	Base plate	409000107
14	1	End trim base plate	409000108
15	3	Bearing 6004-2RS	6116004301
16	6	Allen bolt DIN 912 M5 x 16 (Thread 16mm)	6310501601
17	2	Allen bolt DIN 912 M6 x 20 (Thread 20mm)	6310602001
18	2	Allen bolt DIN 912 M8 x 16 (Thread 16mm)	6310801601
19	2	Washer DIN 125 M6	6610600001
20	2	Universal joint	Cardán D25

MAKSIWA CBC.P
GLUEPOT DUOMELT M2



Unit: MAKSIWA CBC.P Gluepot unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The DuoMelt gluepot is a glue applicator unit for Maksiwa CBT.P edgebander. It can work with EVA glue and PUR glue. It has a capacity of 1.2 Kg and a power of 3 KW. It consists of:

- Deposit for melting the glue.
- Six heating elements to melt glue quickly.
- Mechanism that allows the emptying of the gluepot.
- Software that manages and reports on the operations for changing the glue.
- Different mechanical and electrical safety elements.
- Advance roller-housing assembly, capable of applying the glue on different thickness.
- Easy glue quantity adjustment.

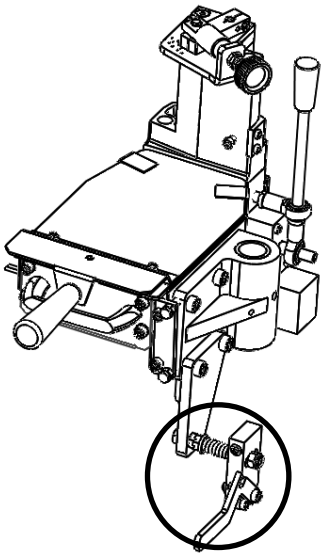
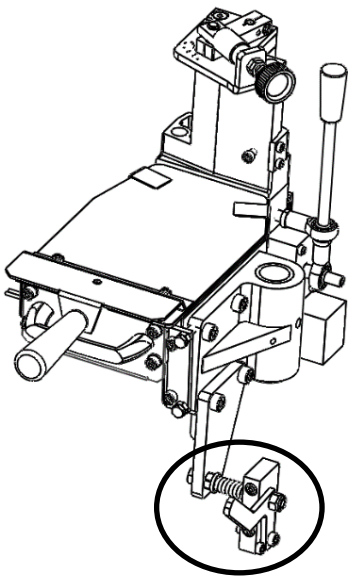
2 SCREEN SELECTION AND ACTIVATION

2.1 Screen selection

ON	OFF
	

2.2 Manual activation

Ensure that the lever is out of tracing nut and the group is in the working position.

Working position OK	NOT active
	

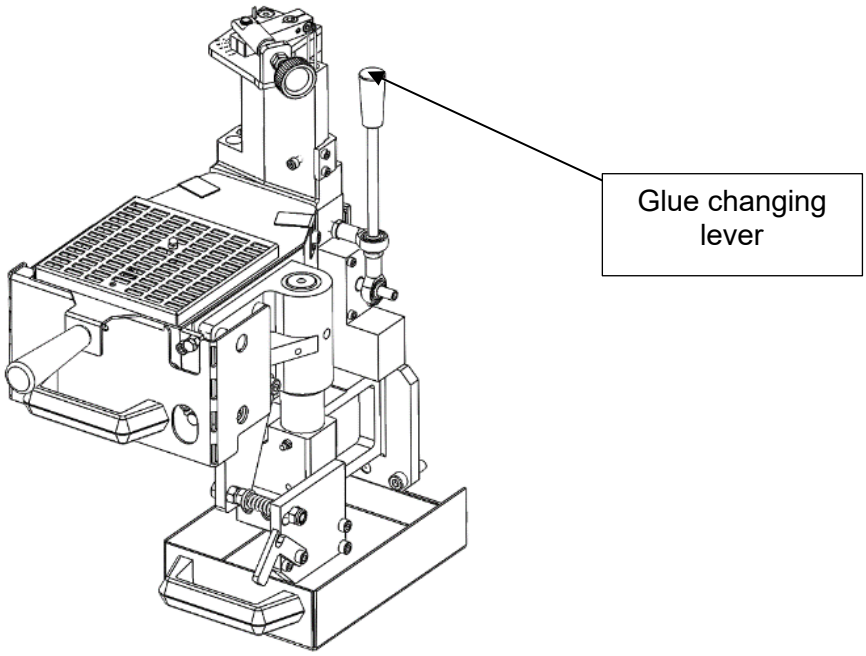
3 OPERATION AND ADJUSTMENT

3.1 Work description

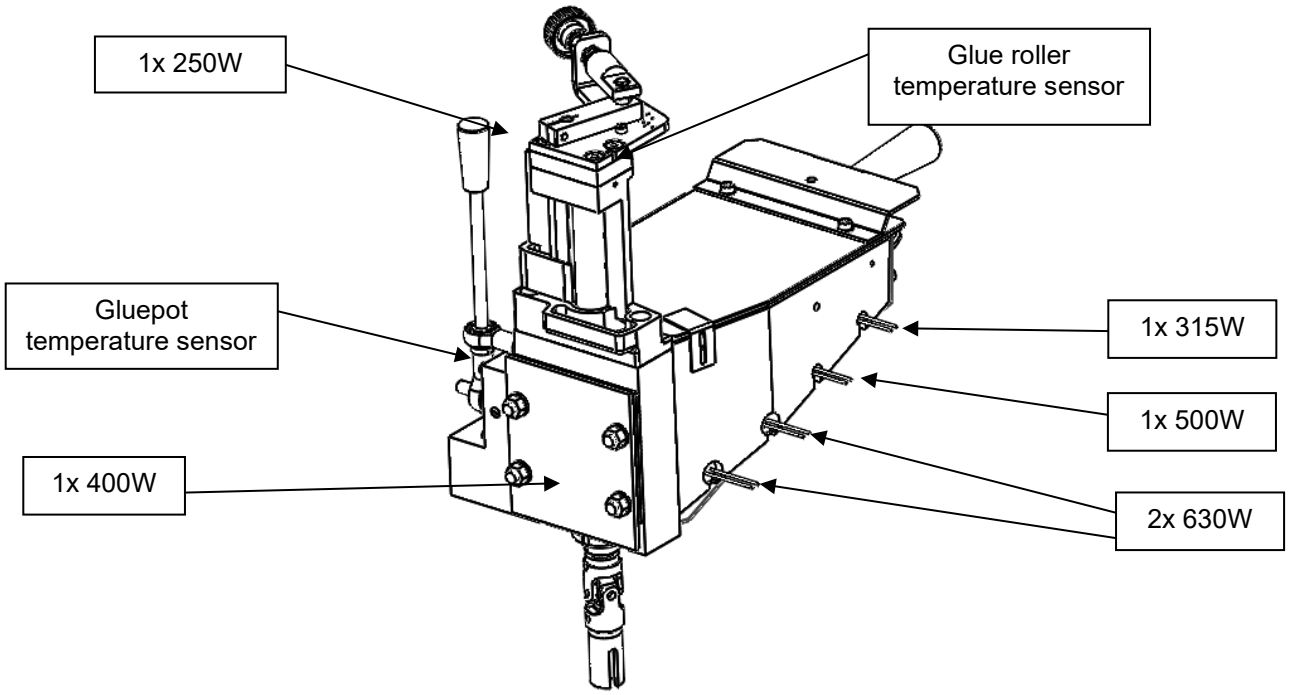
- It takes around 12 minute to reach the working temperature with EVA glue (this time may vary depending on the ambient temperature and the type of glue).
- HMI screen displays accurate temperature of gluepot and glue roller, even it is possible to adjust a different temperature, depending on glue manufacturer specifications.
- When starting the machine, the glue goes up the endless roller, and when a work piece passes, it distributes the glue evenly along the entire side of the board.
- With the correct setting of the amount of glue, no additional adjustment is necessary to work with different board thicknesses. Only change the glue quantity when working with different kind of panels (for example, MDF panel requires less glue than chipboard).

3.2 Changing glue EVA-PUR

To change the glue or to empty the gluepot, use integrated software in HMI. In this case, you will need to change the lever when appears the message on screen (left = working mode, right = emptying mode).



3.3 Temperature sensors and heating elements



060082 Gluepot duomelt			
#	**Qty.**	**Description**	**Reference**
1	1	Tubular heater D10x60 250w	3542100541
2	1	Frontal heater 400w. 115x105x4mm	3535140001
3	1	Heater D.16 x 130 630W	3542161361
4	1	Heater D.16 x 100 630W	3542161111
5	1	Heater D.10 x 120 500W	3542101221
6	1	Heater D.10 x 100 315W	3542101001
7	1	Gluepot temp sensor type J #25 D6x75	3482280031
8	1	Glue roller temp sensor type J # 25 D3x30	3482280061

3.4 Unit adjustment

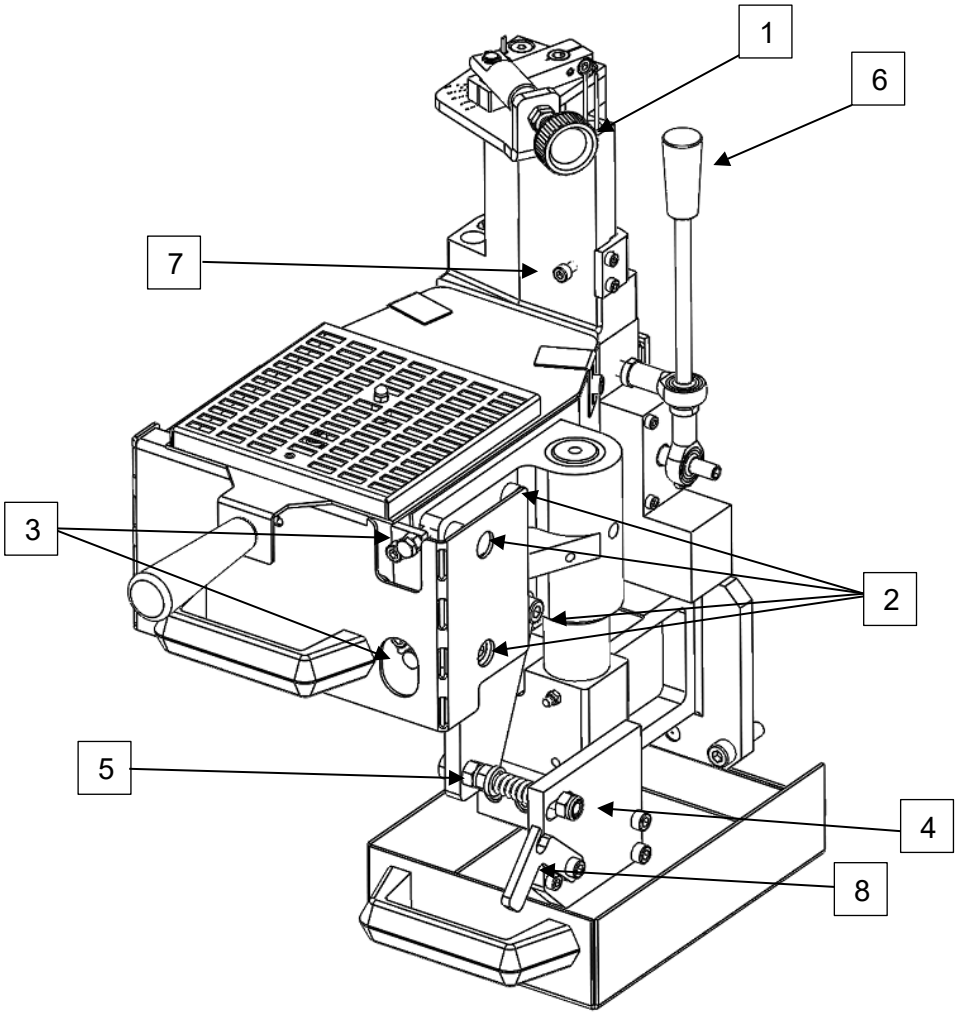
Security warning

A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

The gluepot unit works at 200 degrees (EVA glue). Use all necessary precautions handling the gluepot to avoid any kind of injury (gloves).

Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.



***Adjustments only for technicians**

#	Element	Function
1	Glue regulator knob	Turning clockwise reduces the glue quantity and counter-clockwise increases.
2	**Unit fixing bolts***	Fixing the unit to the base and fixing the angle of the roller.
3	**Roller inclination stopper bolts***	
4	Self-locking nut: tracing	Tracing the unit (1mm set).
5	Self-locking nut: tension	Increase or reduce the tension of tracing.
6	Glue changing lever	Emptying the gluepot.
7	**Roller tracing plate bolt***	Pusher to make a gap of 0.05 mm between roller and panel.
8	Gluepot deactivation lever	Retreats the gluepot, in case of working only with premilling, or testing any other unit, without applying the glue on panel.

4 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

Only trained personnel can perform these operations.

4.1 General maintenance

- Clean the gluepot daily with compressed air, with glue at low temperature, and avoiding dirt from entering into the unit.
- Check that the glue return hole is not blocked, and the excess glue is correctly returning to the gluepot.
- To remove burnt glue, use silicone or wooden spatulas to avoid damaging the Teflon coating.
- Drain the gluepot using Duomelt system once a week.

4.2 Changing heating elements

Proceed as follows:

- To replace the heating element, turn off the machine completely; remove the air and feeding tray.
- Disconnect the 6-pin quick connector that powers the heating elements and disconnect the 4-pin quick connector from the temperature sensor.
- Remove the gluepot and place it on a workbench.
- Disconnect the heating elements from the quick connector, remove them from their housing and replace them with the new ones.

5 ALARMS

Alarm	Possible cause	Solutions
Maximum temperature	Temperature sensor fault	Verify correct reading on temperature display. If asterisks appear instead of current temperature, it is due to sensor failure. Check if it is well connected.
	Solid state relay fail	In this case, a qualified technician must replace said item

6 TROUBLESHOOTING

Before making any adjustments to improve the finish, do the following:

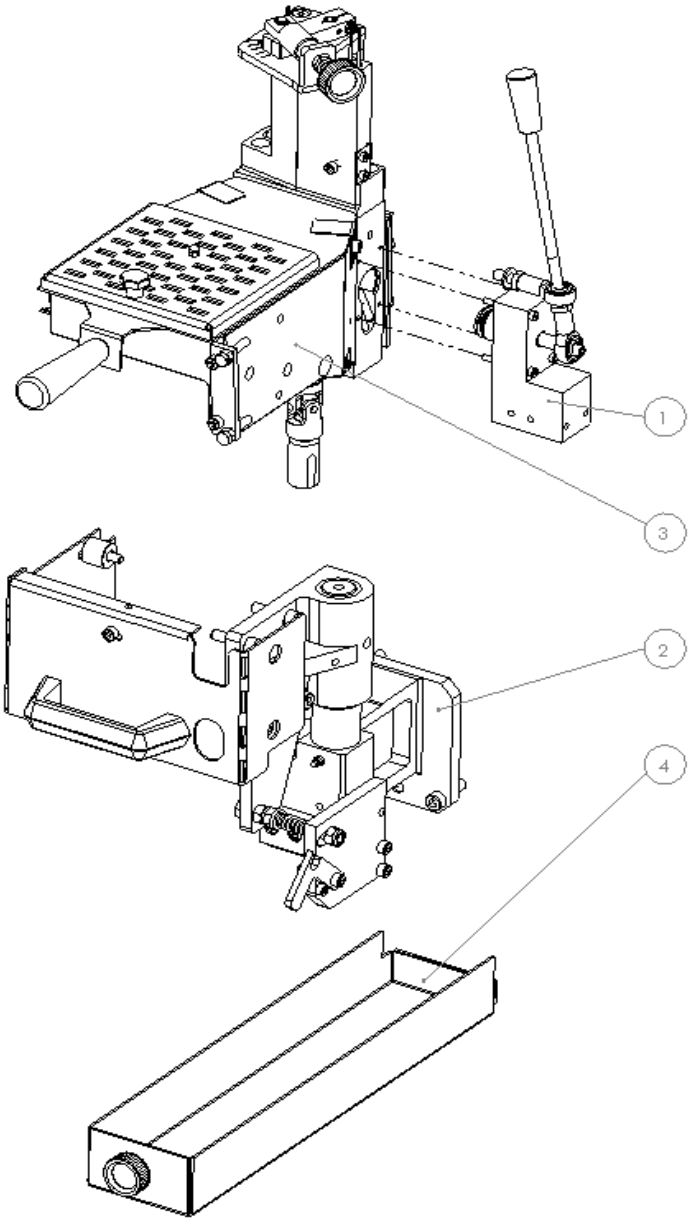
- Correct height of the pressure beam: Check that the pressure beam grips the panel well, and it does not move in its path.

- Correct guiding of the drag chain with a long board (+ 1.50m): Check with a long panel that it follows its path with the infeeding fence. If the board separates at the front, or back, it may result in an incorrect finish.

Error	Possible cause	Solutions
Glueing only half of the panel	Panel cutting	Verify if the panel is at 90º.
	Glue roller tilted	Follow the instructions described in this manual on how to adjust the unit inclination and consult a trained Maksiwa technician
Uneven glueing	Not enough tracing	Increase the tracing
	Fault in glue roller housing assembly	Contact the technical service.

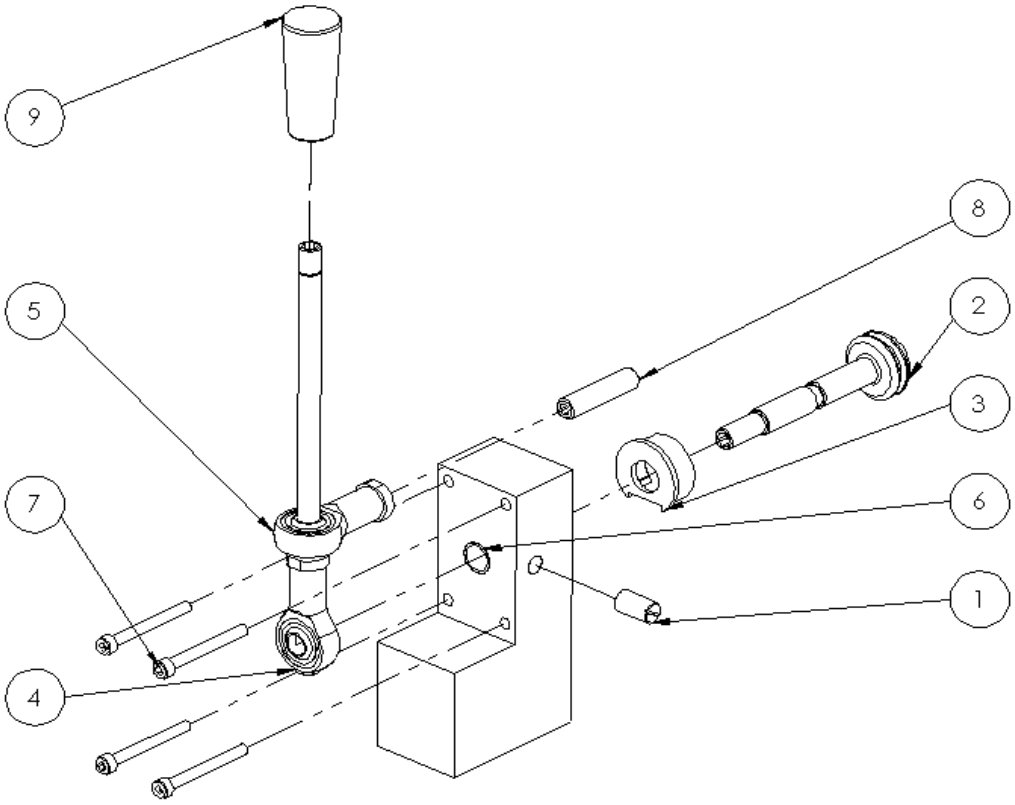
7 UNIT COMPOSITION

7.1 Complete gluepot Duomelt



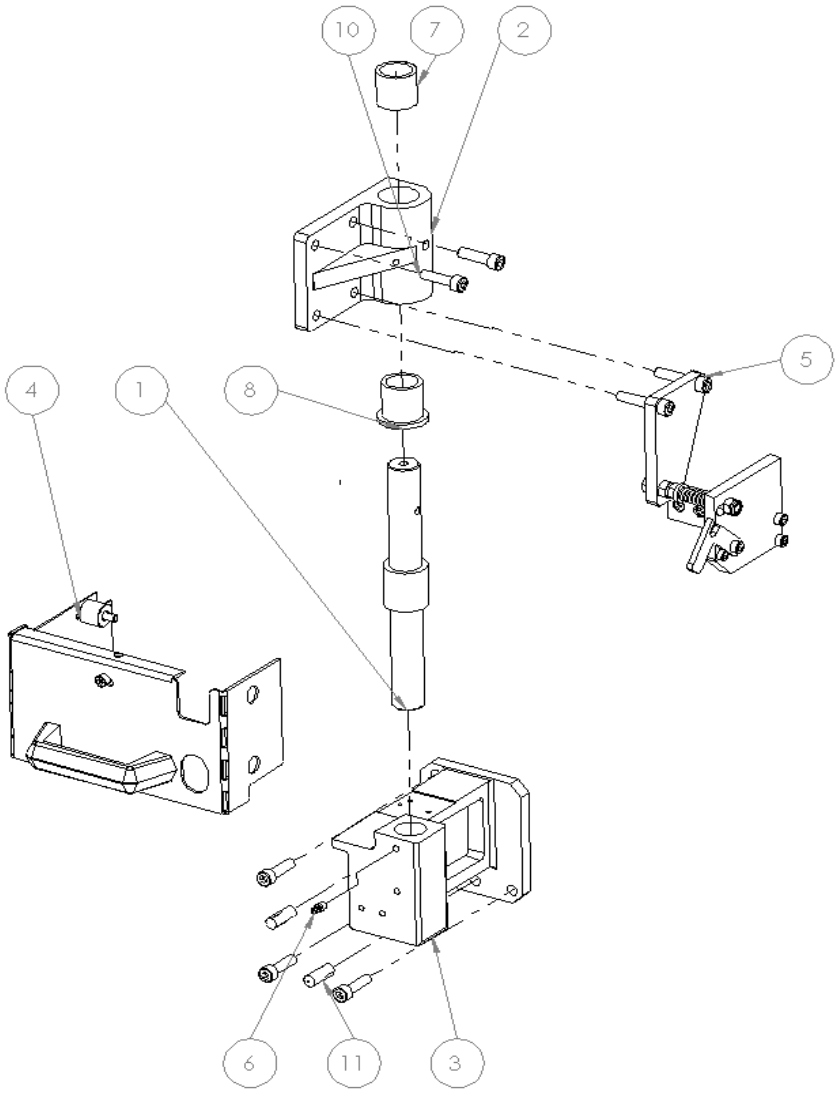
0600091 Calderin M2			
#	**Qty.**	**Description**	**Reference**
1	1	Duomelt draining	5000246
2	1	Support assembly	5001899
3	1	Gluepot	5003521
4	1	Glue tray	5004346

7.2 Gluepot



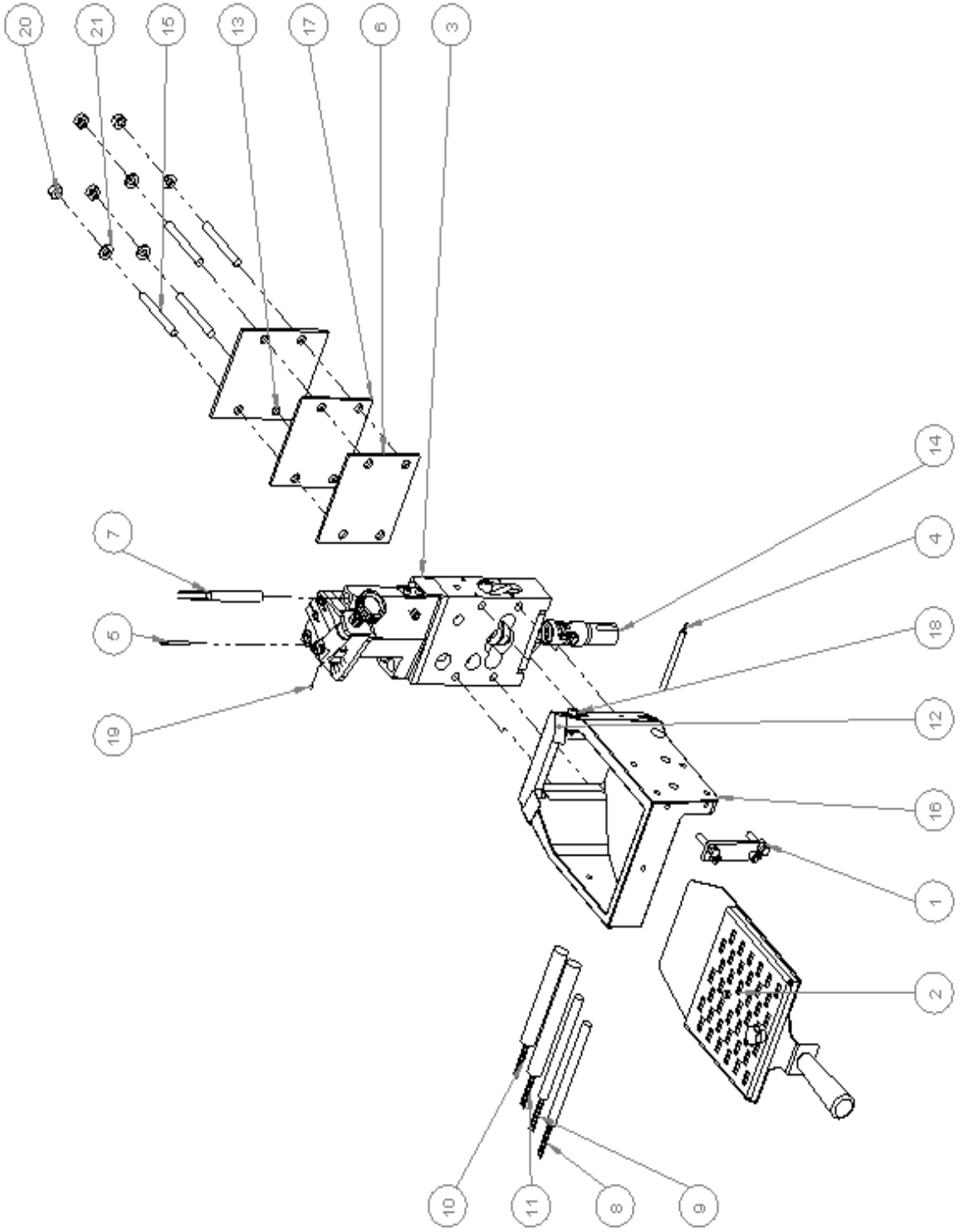
5000246 Desagüe Duomelt 60			
#	**Qty.**	**Description**	**Reference**
1	1	Grub screw M8x16 DIN913 W302-08	102000042
2	1	Cleaning opening valve	403000264
3	1	Sealing gasket	404000154
4	1	Opening shaft	404000157
5	2	Joint KJ080 GA-94-20-1	4133205091
6	1	Cover guide assembly	5000164
7	4	Allen bolt DIN 912 M4 x 40 (Thread 40mm)	6310404001
8	1	Grub screw DIN913 M8 X 35	6330803501
9	1	Handle M8 female	9252304081

7.3 Support assembly



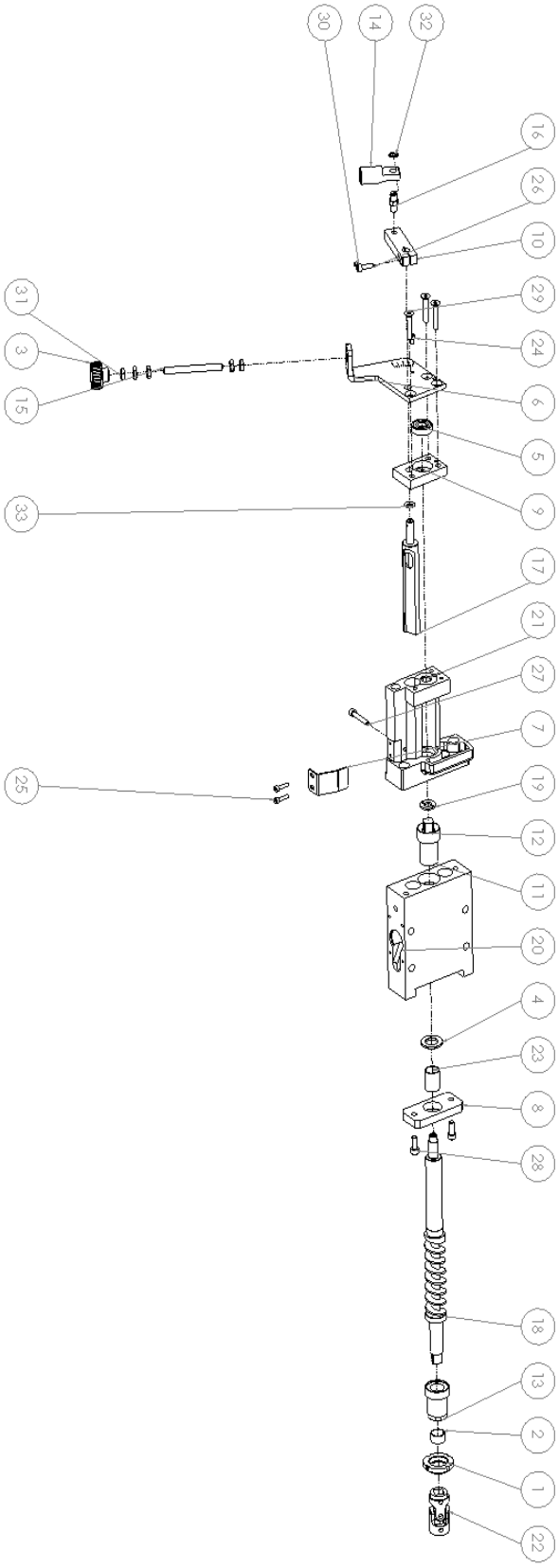
5001899 Conjunto Soporte			
#	**Qty.**	**Description**	**Reference**
1	1	Column Glue pot	404000516
2	1	tilting support glue pot	408000060
3	1	Support Glue pot	5000248
4	1	Protection glue pot assembly	5000732
5	1	Tracer Assembly	5001897
6	1	Nipple M6	5341251721
7	1	Bushing 25x32x30 A	6212532301
8	1	Bushing 25x32x35 B	6222532351
9	1	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
10	5	Allen bolt DIN 912 M8 x 30 (Thread 30mm)	6310803001
11	2	Dented pin DIN1472 10 x 30	6571003001

7.4 Gluepot



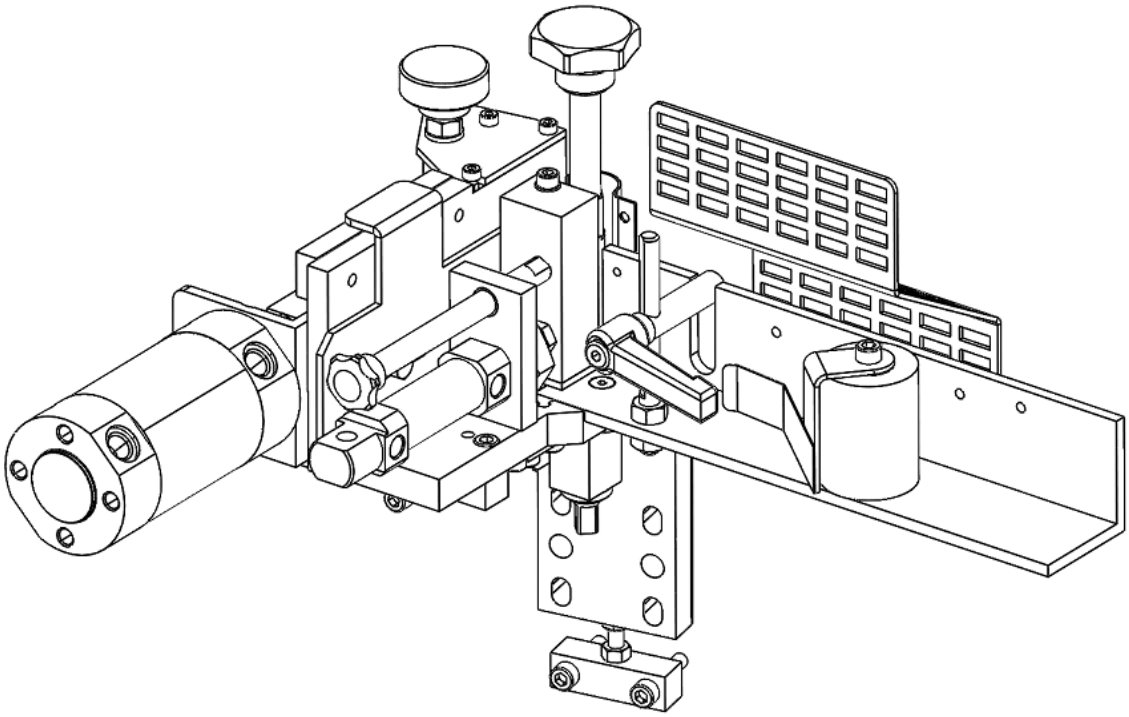
Calderin 60 5003521			
#	**Qty.**	**Description**	**Reference**
1	1	Gluepot tilting stop position	5000252
2	1	Gluepot cover assembly	5000660
3	1	Glue roller housing assembly	5003737
4	1	Gluepot temp sensor type J #25 D6x75	3482280031
5	1	Glue roller temp sensor type J # 25 D3x30	3482280061
6	1	Frontal heater 400w. 115x105x4mm	3535140001
7	1	Tubular heater D10x60 250w	3542100541
8	1	Heater D.10 x 100 315W	3542101001
9	1	Heater D.10 x 120 500W	3542101221
10	1	Heater D.16 x 100 630W	3542161111
11	1	Heater D.16 x 130 630W	3542161361
12	2	Guide bracket	401000484
13	1	Heater cover	401000772
14	1	Slider	404000427
15	4	Threaded shaft M8x70	404000514
16	1	Gluepot	408000114
17	1	Frontal insulation plate	409000122
18	2	Allen bolt DIN 912 M6 x 20 (Thread 20mm)	6310602001
19	1	Grub screw DIN913 M3 X 3	6330300301
20	4	Din 934 - Washer M8 copper	6410800201
21	4	Washer M8	6610800001

7.5 Glue roller housing assembly



Glue roller housing assembly 5003737			
#	**Qty.**	**Description**	**Reference**
1	1	Locking nut KMAT5 M25x1.5	102000173
2	1	MB1610DU	102000174
3	1	Knob ELESA+GANTER BT.32 B-M8	102000175
4	1	Disk AXIAL GS81102 Machined	102000178
5	1	Bearing 6000-2RS ENC 330ºC	102000278
6	1	Support plate - knob	401004795
7	1	Inner adjustment tracer	401005524
8	1	Threaded plate	403001569
9	1	Roller housing top cover	403002255
10	1	Opening lever	403002256
11	1	Slider	404000427
12	1	Housing gasket	404000721
13	1	Bottom guide gasket	404001168
14	1	Union nut	404001298
15	1	Threaded shaft M8 x 75	404001299
16	1	Adjustment pivot	404001300
17	1	Glue dosification gate	404001467
18	1	Glue roller	404001468
19	1	Glue roller washer	404001715
20	1	Roller housing (adjustable)	409000344
21	1	Top side roller housing	5003336
22	1	Universal joint	5412221201
23	1	Friction gasket MB1625DU	6240162501
24	1	Allen bolt DIN 912 M4 x 8 (Thread 8mm)	6310400801
25	2	Allen bolt DIN 912 M4 x 16 (Thread 16mm)	6310401601
26	1	Allen bolt DIN 912 M5 x 16 (Thread 16mm)	6310501601
27	1	Allen bolt DIN 912 M5 x 30 (Thread 22mm)	6310503001
28	2	Allen bolt DIN 912 M6 x 16 (Thread 16mm)	6310601601
29	3	Bolt DIN7991, M6 X 35 Thread:28.7mm	6320603501
30	1	Grub scrw DIN914 M5 X 6	6330500621
31	5	Hex bolt DIN936, M8	6410800021
32	1	Seger ring Ext. DIN471 8 X 0.8	6630800001
33	1	O-ring 8x2.65-A-ISO 3601-1	

MAKSIWA CBC.P
FEEDING TRAY



Unit: MAKSIWA CBC.P Feeding tray
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The feeding tray cuts the edge tape with a guillotine at the trail of each panel, and feeds it automatically, so the edge is ready to edgeband with the next panel.

2 WORK DESCRIPTION AND ADJUSTMENT

2.1 Screen activation

	Active	NOT active
Cutter (guillotine)		
Feeding unit		

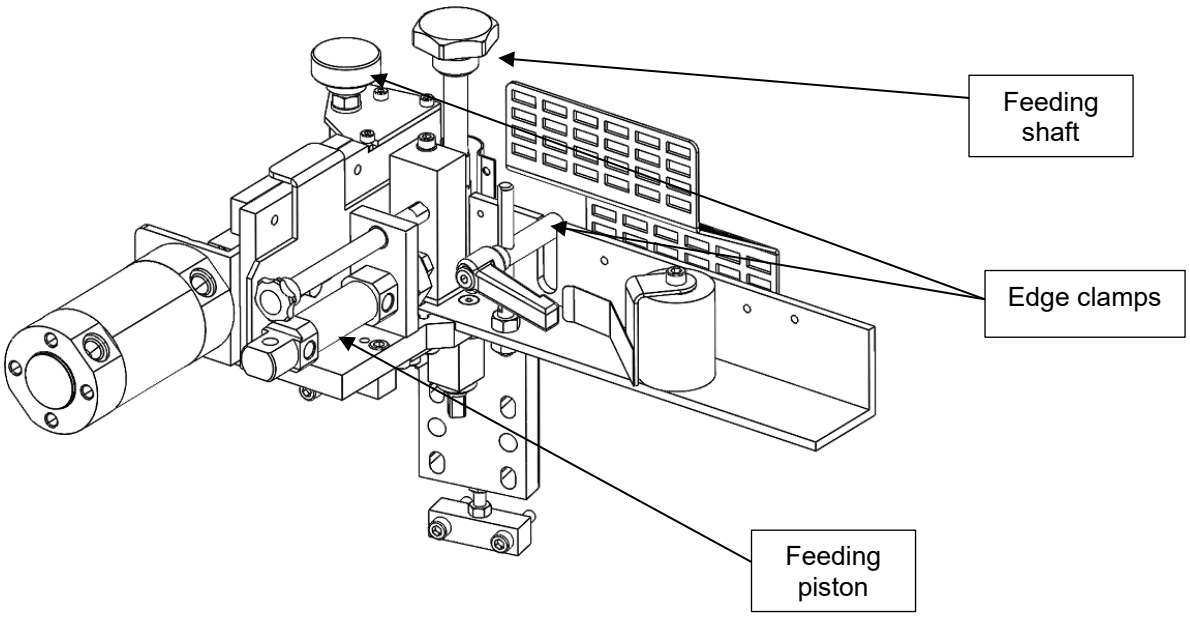
2.2 Work description

Guillotine

The group receives the signal from the limit switch 20S12 and after a delay (set in screen); it activates the cutter (the guillotine).

Feeding system

Since the feed shaft is rotating, the feeding piston activates when the panel is fed into the machine, so edge tape encounters with the panel at the middle of the first roller for edgebanding process.

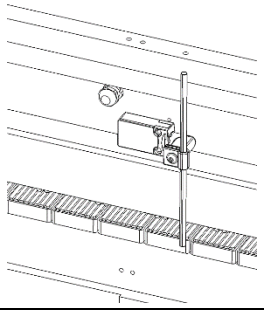


Before feeding first panel into the machine, feed the edge unto the cut line of guillotine, and adjust the height with edge clamps, so the edge can move freely without play.

2.3 Sensors and pneumatic composition

This configuration detailed below might change. Please check the update electric and pneumatic diagram to confirm the correct sensors, electric and pneumatic components.

2.3.1 Sensors



20S13: Limit switch; gives the input signal of panel, so the machine feeds correctly the tape on front side.

20S12: Limit switch; gives the output signal of panel, so the guillotine cuts the tape precisely on backside.

2.3.2 Pneumatic composition

	Solenoid valve	Pressure regulator	Work pressure (MPa)
Guillotine	24Y4	MR4	0,20 – 0,40
Feeding	24Y5	MR5	0,20

2.4 Unit adjustment

Security warning

A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

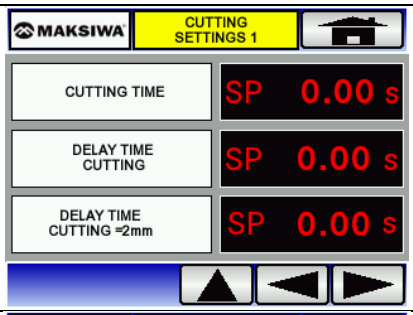
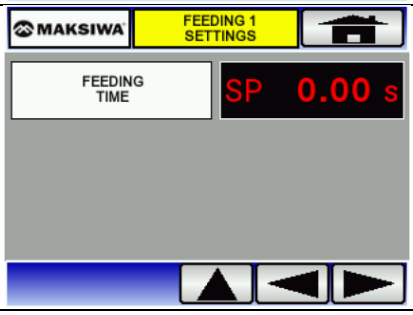
Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling, disconnection of the unit is essential.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

2.4.1 Unit parameters

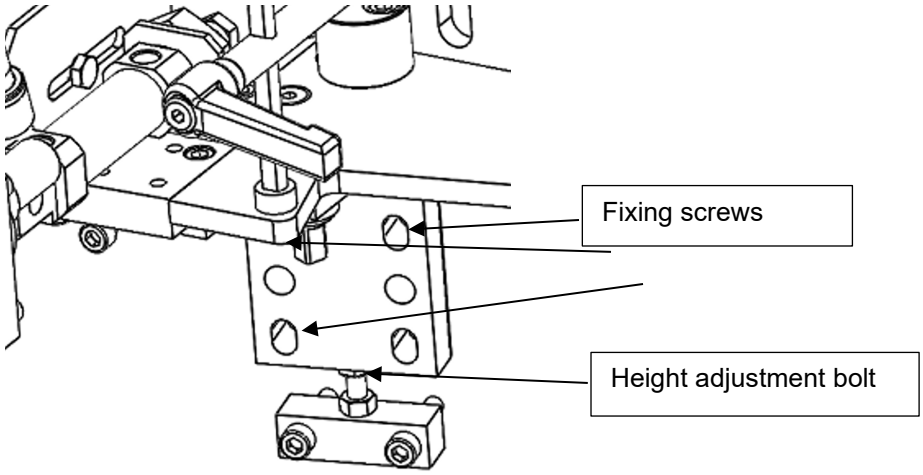
From screen (HMI), it is possible to access to guillotine parameters and feeding parameters without any password. Depending on many external factors (air pressure, unit wearing, etc.) you might need to adjust these parameters. It is very important to keep in mind that an overhang larger than 5mm, will cause a problem end trimming.

In any case, contact with a Maksiwa trained technician, in order to determine the correct parameters.

Access	Screenshot	Description
HOME – GROUPS PARAMETERS – GUILLOTINE		CUTTING TIME: TOTAL ACTIVATION TIME FOR GUILLOTINE. DELAY TIME CUTTING: Adjusts the excess of the edge tape on rear side of the panel
HOME – GROUPS PARAMETERS – FEEDING		FEEDING TIME: Adjusts the excess of the edge tape on front side of the panel

2.4.2 Edge height adjustment

MAKSIWA adjusted the unit with an excess of 1.5-2.0mm edge in the lower part, and the rest of the excess edge remains in the upper part of the board. MAKSIWA do not recommend any other adjustment setting, as it could seriously damage the trimmer group motors. For this reason, the edge cannot be greater than 5mm with respect to the height of the panel. In other words, if the board is 18mm, the edge height cannot exceed 23mm.



If necessary, adjust the height of the unit with height adjustment bolt, loosening the fixing screws first.

3 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

Only trained personnel can perform these operations.

3.1 General maintenance

- Remove (vacuum) daily the remains of the chips and excess edge that may be near the group.
- Check that the rubber rollers rotate freely.

3.2 Tool change

3.2.1 Guillotine cutter

With a 5mm Allen key, you can loosen the two screws that hold the cutter piston with the guillotine, and thus easily remove it for replacement.

3.2.2 Glue feeding roller

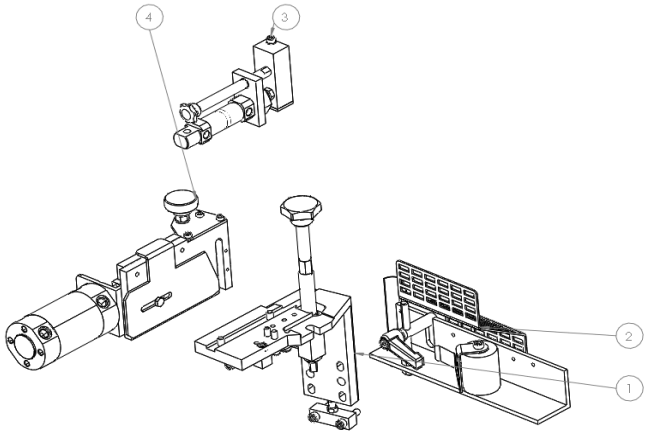
Remove the feeding shaft easily by turning it clockwise (reverse thread).
To change the rubber roller on the feed piston, dissemble it removing the bolts with a 5mm Allen key, and then remove the shaft with a 13mm spanner and a flat screwdriver.

4 TROUBLESHOOTING

Error	Possible cause	Solution
Guillotina not cutting	Guillotine status	Replace the guillotine cutter
	Mechanical obstruction	Disconnect pneumatic pressure, clean the area with compressed air and move by hand to ensure free movement.
	Not enough pressure	Check the pressure in the MR4 pressure gauge, and if necessary, raise it a little.
Edge not feeding	Feeding shaft mechanical obstruction	Check that the feeding shaft turns freely. If necessary, disassemble it for proper cleaning.
	Mechanical obstruction	Check that the piston goes in and out correctly.
	Loose feeding shaft	Check that the feed shaft is properly tightened, and the rubber roller does not rotate freely. Remember it is reverse thread.
	High pressure	If the feed shaft pressure is too high, the machine will not feed properly. The correct pressure is determined in the attached pneumatic diagram.

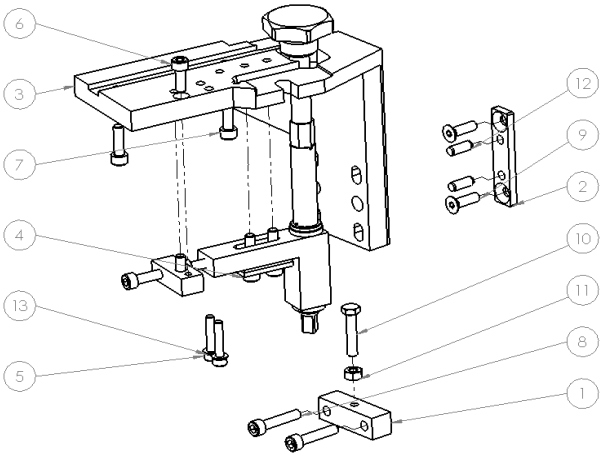
5 UNIT COMPOSITION

5.1 Complete unit assembly



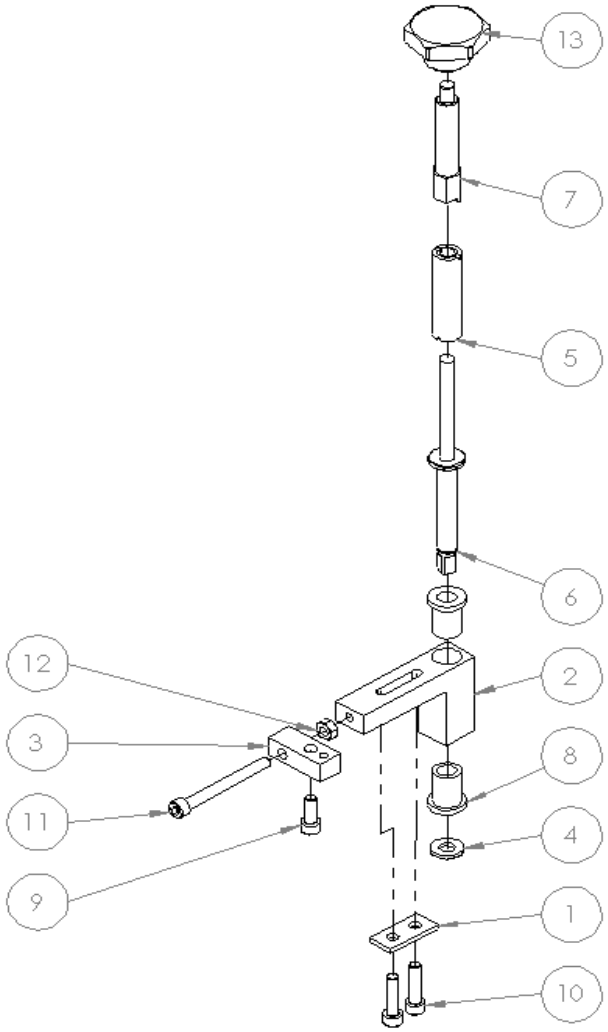
Feeding tray 0500172			
#	Qty.	Description	Reference
1	1	Base support assembly	5002803
2	1	Feeding tray assembly	5004140
3	1	Guided feeding cylinder assembly	5005057
4	1	Guillotine assembly	5005221

5.2 Base support assembly



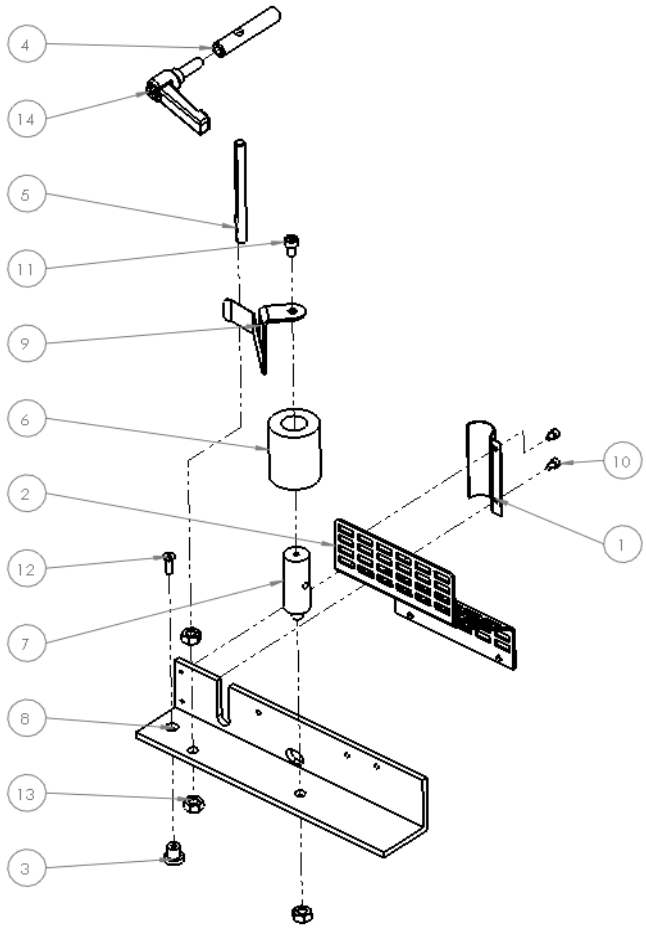
Base support assembly 5002803			
#	Qty.	Description	Reference
1	1	Height regulation block	403000536
2	1	Height regulation guide	403000537
3	1	Tray support	408000057
4	1	Feeding roller assembly	**5000707**
5	2	Allen bolt DIN 912 M5 x 25 (Thread 25mm)	6310502501
6	1	Allen bolt DIN 912 M6 x 16 (Thread 16mm)	6310601601
7	2	Allen bolt DIN 912 M6 x 20 (Thread 20mm)	6310602001
8	2	Allen bolt DIN 912 M6 x 30 (Thread 30mm)	6310603001
9	2	Bolt DIN7991, M6 X 20 Thread :20mm	6320602002
10	1	Bolt HEXAGONAL DIN933, M6 X 30	6360603001
11	1	Bolt DIN934, M6	6410600001
12	2	Parallel pin DIN6325, 6 X 16 - A - St	6520601601
13	2	Washer DIN 125 M5	6610500001

5.3 Feeding roller assembly



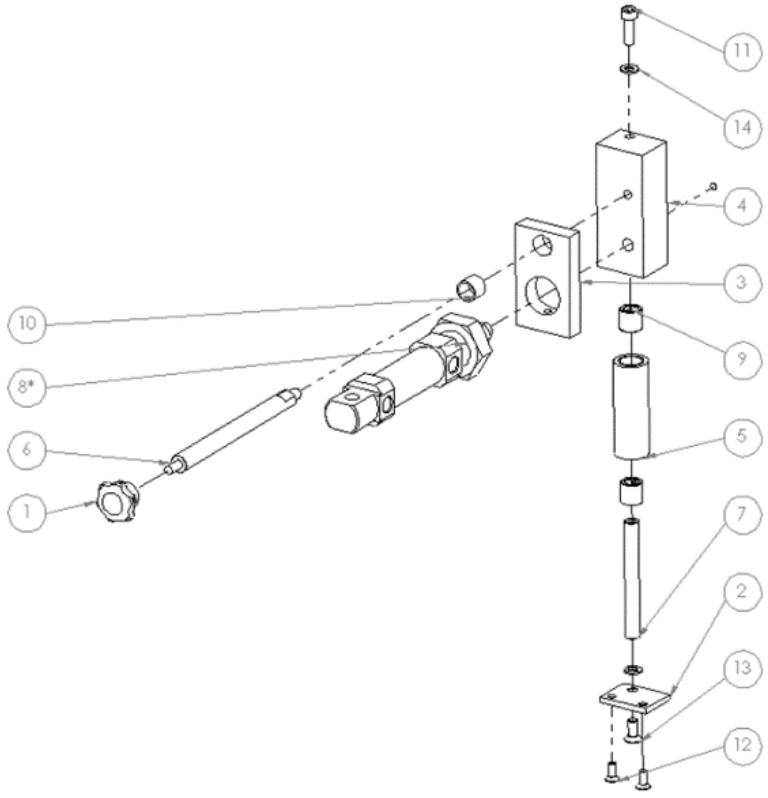
5000707 Feeding roller assembly			
#	**Qty.**	**Description**	**Reference**
1	1	Fixing bracket	401000988
2	1	Fixing bracket	403000360
3	1	Adjustment guide	403000549
4	1	Washer 8,25x17x2	404000485
5	1	Feeding roller	404000493
6	1	Feeding shaft	404001211
7	1	Feeding shaft fixing hex	404001212
8	2	Gasket B101520-203	6221015201
9	1	Allen bolt 912 M6 x 16 (Thred 16mm)	6310601601
10	2	Allen bolt DIN 912 M6 x 25 (Thred 25mm)	6310602501
11	1	Allen bolt DIN 912 M6 x 60 (Thred 24mm)	6310606001
12	1	Nut M6 - DIN 934	6410600001
13	1	Knob 1122	9250112201

5.4 Feeding tray assembly



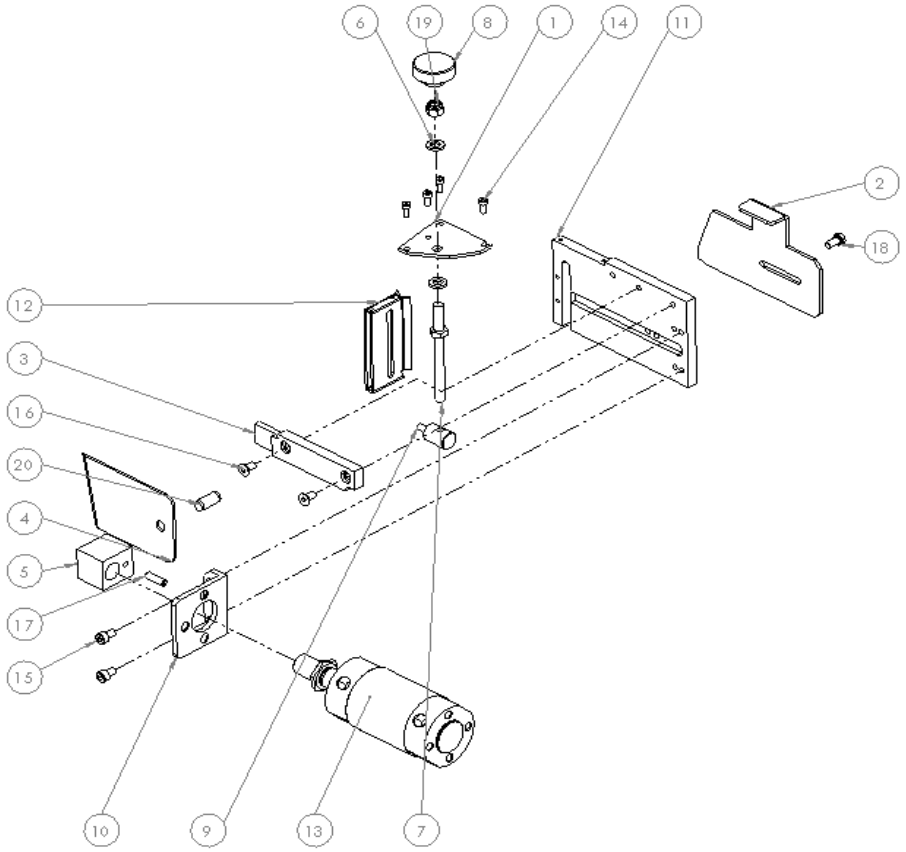
Feeding tray assembly 5004140			
#	**Qty.**	**Description**	**Reference**
1	1	Feeding roller protection cover	401000996
2	1	Gluepot protection cover	401005110
3	1	Aluminium tray fix positioner	404000494
4	1	Top edge positioner	404000497
5	1	Edge level guide	404000498
6	1	Nylon roll	404000499
7	1	Guide shaft	404000500
8	1	Aluminium tray	406000094
9	1	Front clamp	5000725
10	2	Allen bolt DIN 912 M4 x 6 (Thread 6mm)	6310400601
11	1	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
12	1	Bolt DIN7991, M5 X 16 Thread :16mm	6320501602
13	3	Hex bolt DIN934, M8	6410800001

5.5 Guided feeding cylinder assembly



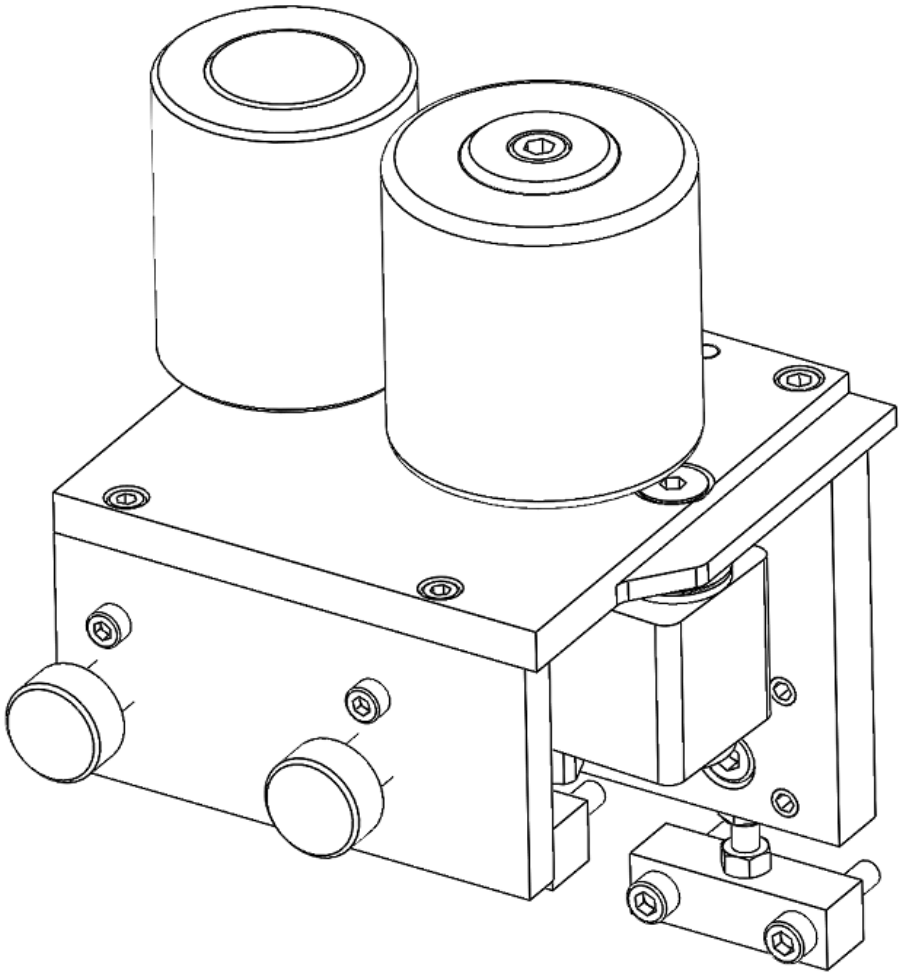
5005057 conjunto cilindro guiado			
#	**Qty.**	**Description**	**Reference**
1	1	Elesa vh 153-25	102000275
2	1	Bottom plate feeding cylinder	401005965
3	1	Support cylinder guided feeding	403002290
4	1	Feeding roller capsue	403002368
5	1	Feeding roller Ø19 X55	404001144
6	1	Pushing piston guided shaft (Front)	404001506
7	1	Pushing piston guided shaft	404001768
8	1	Cylinder SID 50x10	5003543
9	2	Gasket INA-HF0812	6170812001
10	1	Gasket 1010DU	6240101001
11	1	Allen bolt DIN 912 M5 x 16 (Thread 16mm)	6310501601
12	2	Bolt DIN7991, M4 X 10 Thread :5.6mm	6320401001
13	1	Bolt DIN7991, M5 X 12 Thread :12mm	6320501202
14	2	Washer DIN 125 M5	6610500001

5.6 Guillotine assembly



Conjunto cilindro cortador 5005221			
#	**Qty.**	**Description**	**Reference**
1	1	Nozzle support	1000213
2	1	Edge thickness spacer	401000990
3	1	Guillotine guide	403000544
4	1	Guillotine	403000547
5	1	Guillotine pusher	403002819
6	2	Washer 8,5x15x2	404000485
7	1	Height adjustment threaded rod	404000487
8	1	Adjustment knob	404000490
9	1	Tray adjustment shaft	404001544
10	1	Guillotine bracket E-MG	406000119
11	1	Guillotine base plate	409000119
12	1	Edge feeding nozzle	5004656
13	1	Cylinder EG5025_M__0	5005222
14	4	Allen bolt DIN 912 M4 x 10 (Thread 10mm)	6310401001
15	2	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
16	2	Bolt DIN7991, M6 X 12 Thread :12mm	6320601202
17	1	Grub screw DIN913 M6 X 20	6330602001
18	1	Hex bolt DIN933, M6 X 12	6360601201
19	1	Self-locking nut DIN982, M8	6420800001
20	1	Parallel pin DIN6325, 10 X 22 - A - St	6521002201

MAKSIWA CBC.P
SIDE PRESSURE ROLLERS



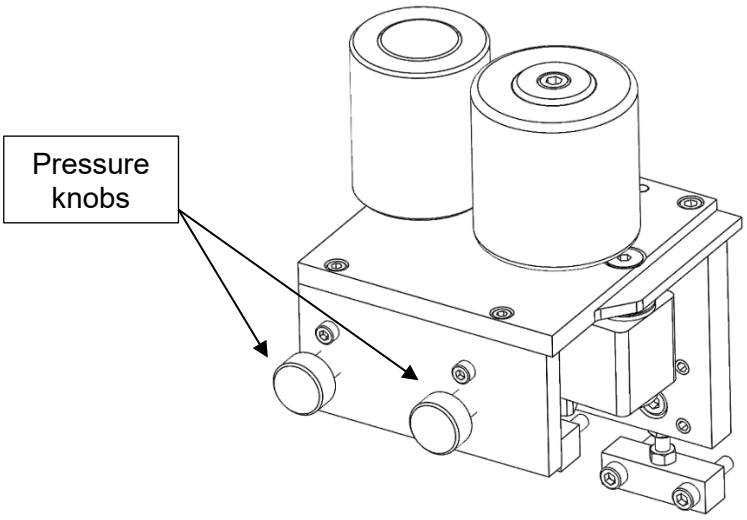
Unit: MAKSIWA CBC.P Side pressure rollers
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

Side pressure rollers unit consists of two pressure rollers, one big pressure roller driven by the gearbox located below gluepot, and a small pressure roller moving freely. The rollers applies a firm and even pressure on all the surface of the tape, and rotating at the same speed of panel, thus achieving a perfect bond of panel with edge.

2 WORK DESCRIPTION AND ADJUSMENT

The unit traces (panel pushes back the rollers) 0.5 – 1.5mm depending on the thickness of the tape. From pressure knobs, it is possible to increase the pressure of the side rollers.



Turn the pressure knob clockwise to increase the pressure and anticlockwise to reduce it.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

3 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

Only trained personnel can perform these operations.

- Remove (vacuum) daily the remains of the chips and excess edge that may be near the group.
- Clean side pressure rollers with a mild thinner to remove any residues of glue.
- Check that the second pressure roller rotates freely.

4 TROUBLESHOOTING

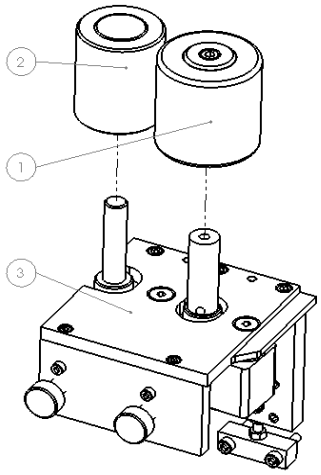
Check these common recommendations before starting any troubleshooting procedure with side pressure rollers:

- Pressure beam height: Check that the pressure beam grips firmly the panel.
- Correct adjustment of infeeding fence: Check with a long panel and confirm that the infeeding fence is guide the panel correctly. If the panel is separating from the fence, it might result in bad tracing from side pressure roller, which can cause edging issues.
- Clean any residue of glue on the pressure rollers.

In most of the cases, any problem with the side pressure rollers is related with a different unit.

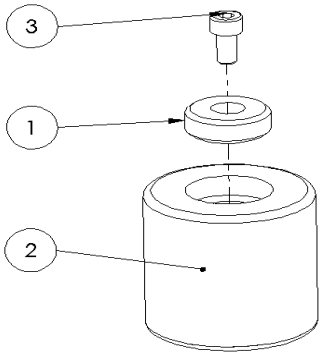
5 UNIT COMPOSITION

5.1 Complete unit assembly



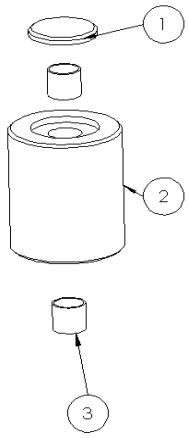
Side pressure rollers 0700128			
#	**Qty.**	**Description**	**Reference**
1	1	Driven pressure roller	5005181
2	1	Second pressure roller	5000393
3	1	Unit support assembly	5000392

5.2 Driven pressure roller assembly (main)



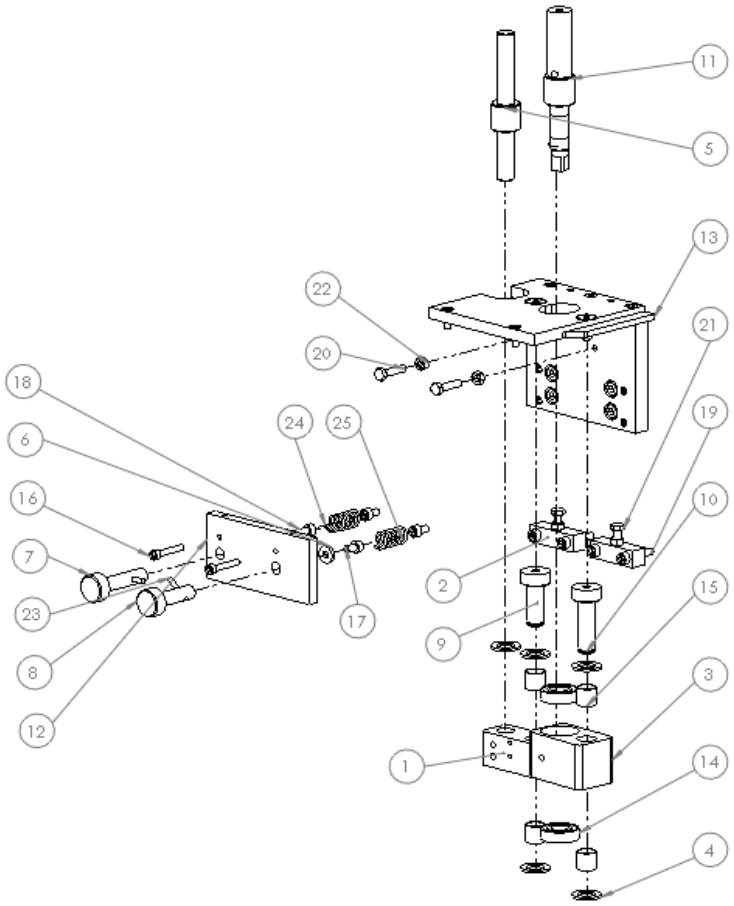
Driven pressure roller 5000392			
#	**Qty.**	**Description**	**Reference**
1	1	Fixing washer	404000371
2	1	Driven pressure roller	404000381
3	1	Allen bolt DIN 912 M8 x 16 (thread 16mm)	6310801601

5.3 Second pressure roller



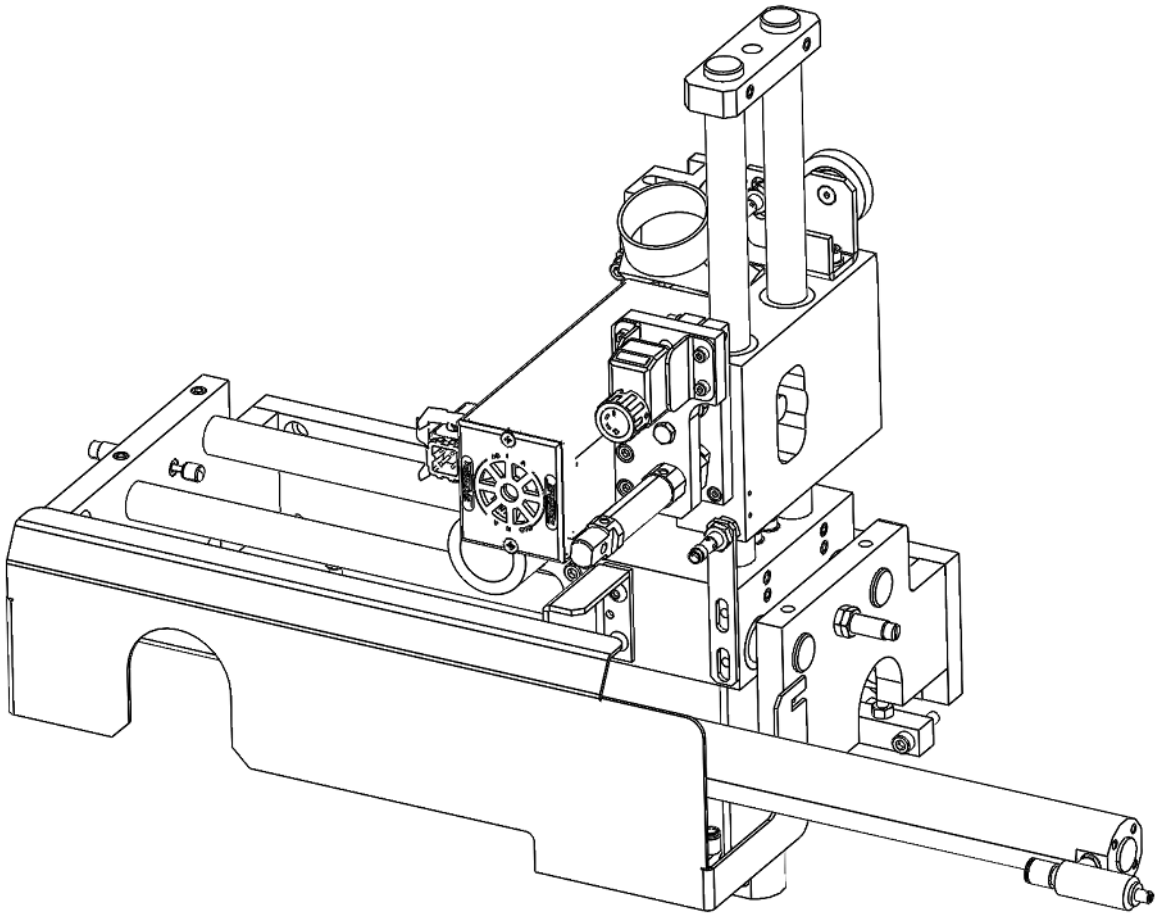
Second pressure roller			
#	**Qty.**	**Description**	**Reference**
1	1	Top cover	404000374
2	2	Second pressure roller	404000382
3	2	Gasket PAP1515 P10	6240151501

5.4 Unit support assembly



Unit support assembly 5005181			
#	**Qty.**	**Description**	**Reference**
1	1	Pivoting block	403000504
2	2	Adjustment handrail	403000536
3	1	Pivoting pressure roller	403002324
4	5	Friction washer	404000361
5	1	Guide shaft	404000362
6	2	Washer 15x3	404000367
7	1	Pressure adjusment knob	404000379
8	1	Pressure adjusment knob	404000380
9	1	Pivoting shaft	404001459
10	1	Pivoting shaft	404001807
11	1	Pressure roller shaft	404001808
12	1	Pressure rollers front plate	409000439
13	1	Support assembly	5003675
14	2	Bearing 6002-2RS	6116002301
15	4	Gasket PAP1515 P10	6240151501
16	2	Allen bolt DIN 912 M5 x 30 (ROSCA 30mm)	6310503001
17	3	Allen bolt DIN 912 M6 x 10 (ROSCA 10mm)	6310601001
18	1	Allen bolt DIN 912 M6 x 16 (ROSCA 16mm)	6310601601
19	4	Allen bolt DIN 912 M6 x 30 (ROSCA 30mm)	6310603001
20	2	Hex bolt DIN933, M6 X 25	6360602501
21	2	Hex bolt DIN933, M6 X 30	6360603001
22	4	Hex nut DIN934, M6	6410600001
23	2	Pin DIN1472 4 x 24	6570402401
24	1	Pressure spring	9294031501
25	1	Spring	9299903181

MAKSIWA CBC.P
END TRIMMING UNIT



Unit: MAKSIWA CBC.P End trimming unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The unit is in charge of cutting the excess edge of the front and backside of the panel. It is equipped with a high frequency motor (200Hz and 12.000 rpm) and a power of 0.27kW.
Equipped with a cutter block with flat trimmers, it can perform the job precisely to flush the excess of the edge with different thickness of panels.
When selected from screen vertical rounding option, the unit will flush with a radius.

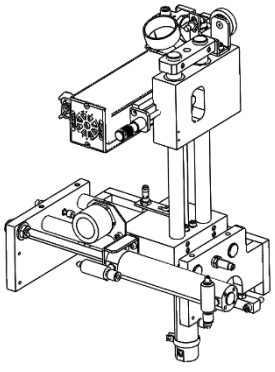
2 SCREEN SELECTION AND ACTIVATION

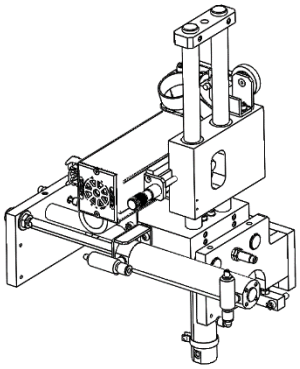
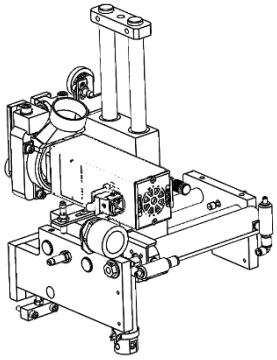
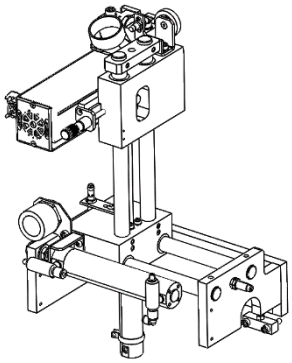
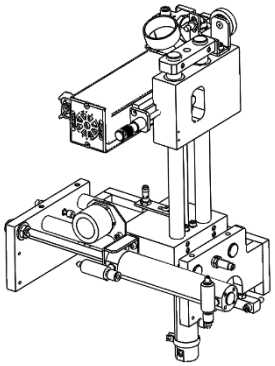
2.1 SCREEN SELECTION

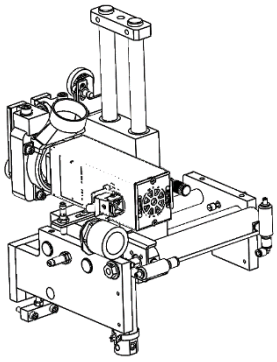
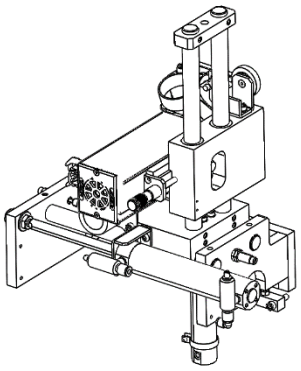
	ON	OFF
UNIT		
Vertical rounding		

3 OPERATION AND ADJUSTMENT

3.1 Work sequence

#	Unit	Description
0		Unit not active. Sensor 20-S32 ON.

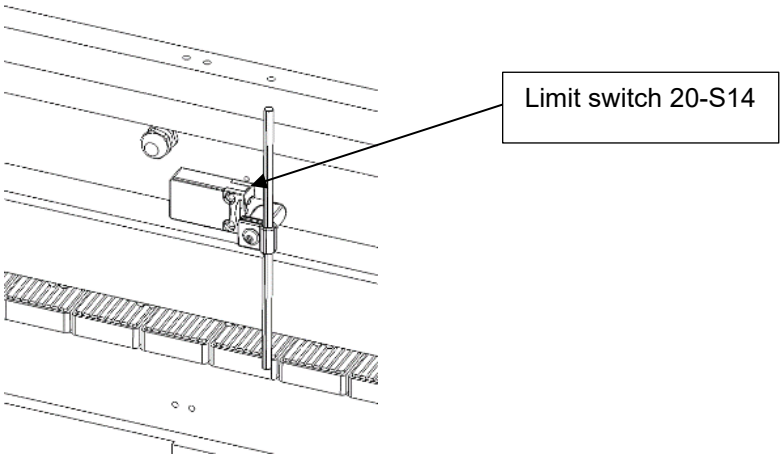
1		Unit active. In this position, the unit is ready to work and waiting for the board. Sensor 20-S30 ON.
2		When the panel reaches de unit, it gently impacts on the front tracer and the unit advances a little, while the group goes up to start cutting the front excess of the edge. The unit never reaches the horizontal piston full stroke, it finishes the work before. If unit reads Sensor 20-S31, it will show an error on screen.
3		The unit finishes the front end trimming by reaching top position.
4		After finishing front-end trimming, the group returns to the top rear position, waiting for the end of the panel to work on the rear side.

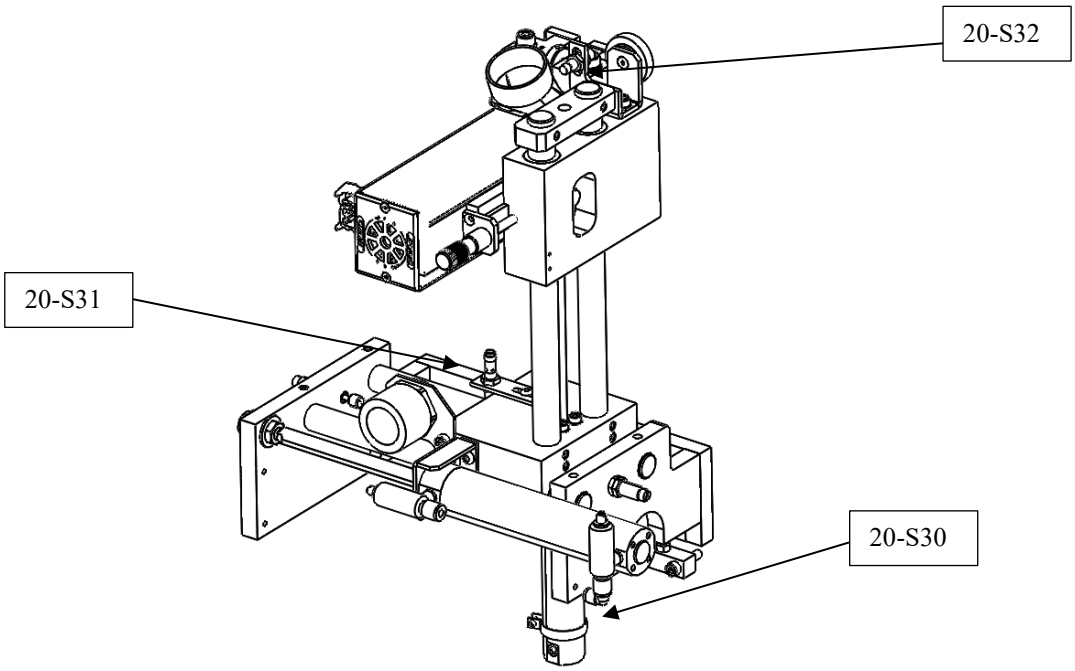
5		When the unit receives the signal of end of the panel (limit switch 20-S14), it comes down on rear top side of the panel (aprox. 30 mm) to advance, and starts the rear end trimming when the light of sensor 20-S32 turns off.
6		The unit finishes the cycle when receives the signal from sensor 20-S30, and goes back to waiting position for next panel.

3.1 Sensors, electric and pneumatic composition

This configuration detailed below might change. Please check the update electric and pneumatic diagram to confirm the correct sensors, electric and pneumatic components.

3.1.1 Sensors





- **20S14:** Limit switch to indicate the beginning and end of the panel.
- **20S-30**: Indicates the position of the unit in the bottom position.
- **20-S31**: Security sensor, If the unit advances too much without finish the work (top or bottom), the sensor is activated.
- **20-S32**: Sensor de posición final superior.

3.1.2 Electric composition

	Motor	Thermal relay	Inverter
End trim unit	5M3	5F3	U1

3.1.3 Pneumatic composition

Movement	Solenoid valve	Pressure regulator	Working pressure	Direction
Vertical	**23Y1**	MR1	0.10 MPa	Down
	23Y1	MR1.1	0.25 MPa	Up
Horizontal	**23Y2**	MR2	0.10	Forward
	23Y3	MR3	0.12	Backward

Please note that above values are theoretical, and may differ slightly from your machine.

3.2 Unit adjustment

Security warning

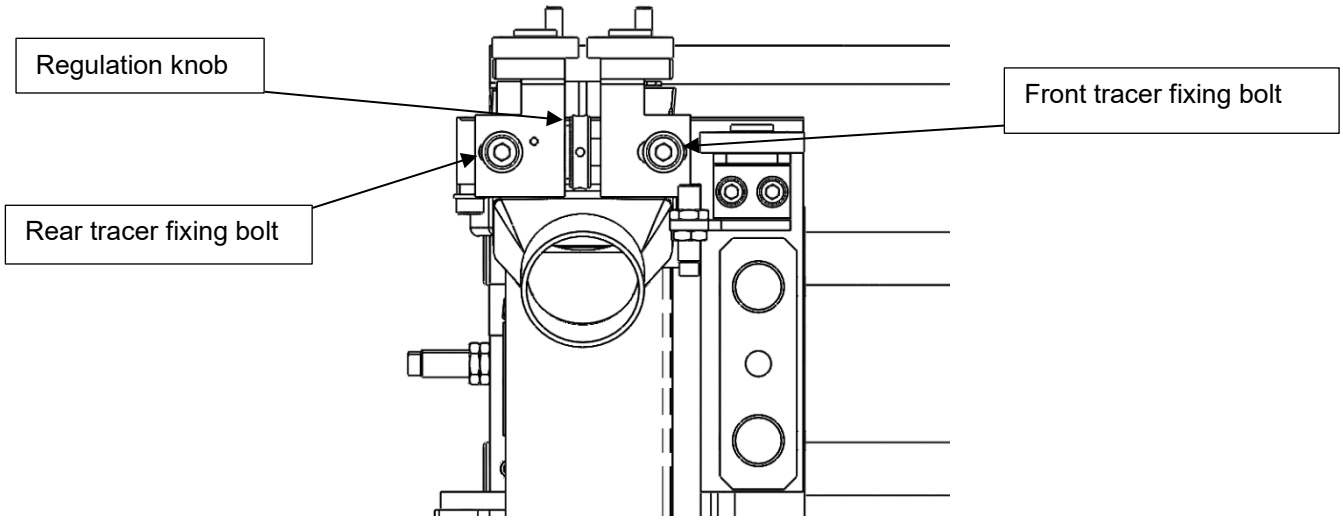
MAKSIWA adjusts the unit from factory at the customer's request. For this reason, MAKSIWA do not recommends handling without the support of an authorized technician.

Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling, disconnection of the unit is essential. It incorporates into its work program some safety systems, which guarantee under an inadequate working condition the cancellation or stoppage of the machine to prevent breakage.

Before making any adjustments, verify that the problem is not possible to solve with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

3.2.1 Tracer adjustment

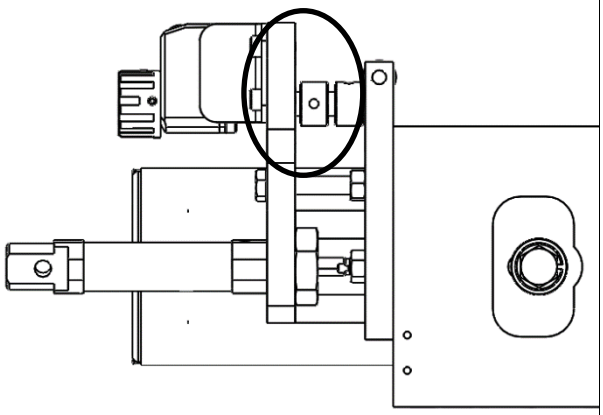
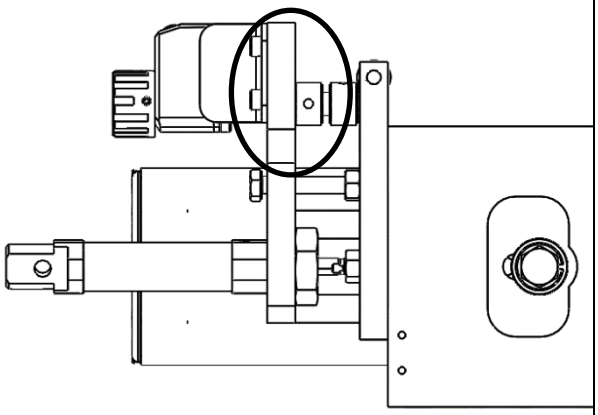
The group allows you to regulate the excess of the edge to be cut, follow the procedure described below:

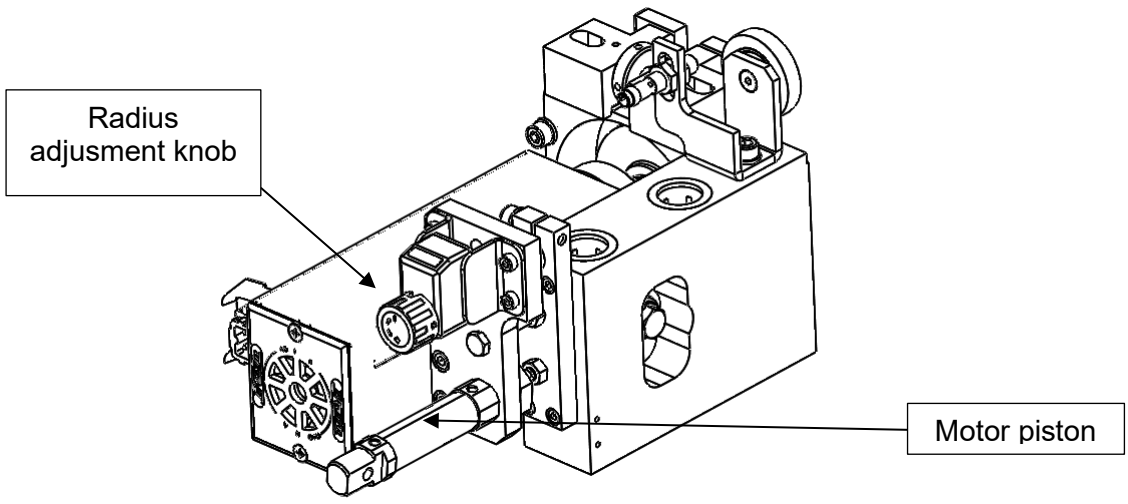


- Loose the tracer bolt you want to adjust.
- Turn the knob clockwise (towards you) if you want to reduce the excess and counter-clockwise if you want to leave more excess of edge.
- Retighten the screw and check the result.

3.3 Radius adjustment (vertical rounding)

When vertical rounding is ON from HMI, instead of flat finish, the unit with make a radius on side. The motor piston pushes the motor forward for making radius or backward, for a flat finish.

ON	OFF
	
	



For changing the radius of vertical rounding:

- Turn off vertical rounding form screen (this will allow you to move the knob).
- Move the knob. Increase the number to achieve a bigger radius and decrease it for a smaller radius.
- Turn on again vertical rounding and check finish.

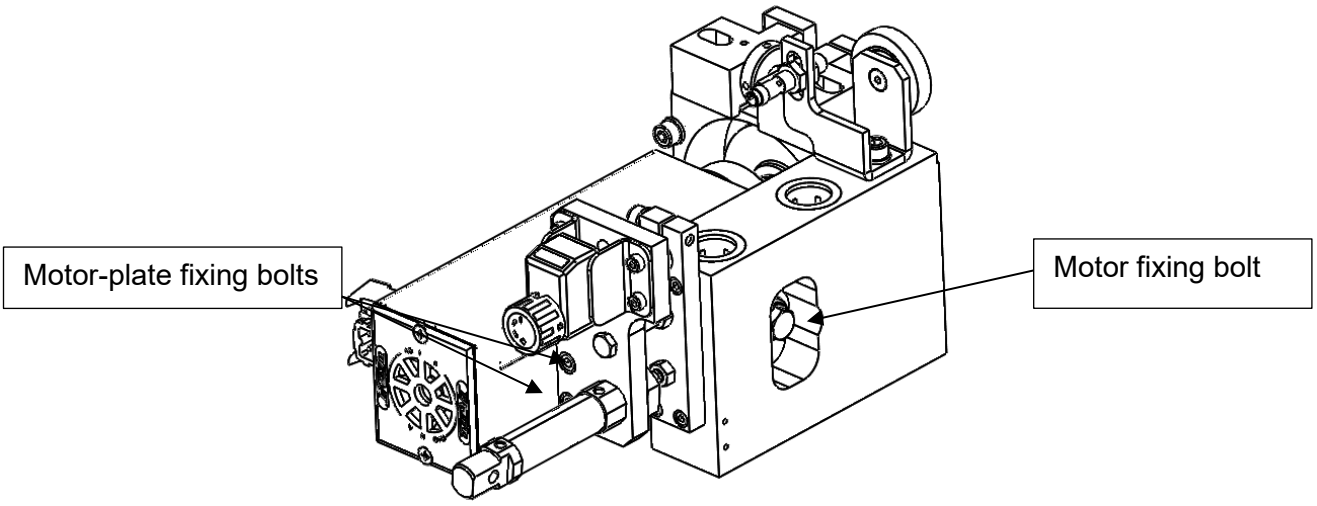
4 MAINTENANCE

Before starting the maintenance of the machine, disconnect the machine electrically and pneumatically. Trained operators should carry out this process.

4.1 General maintenance

- Clean the tracers of the unit daily with a mild cleaning agent.
- Remove (vacuum) daily the remains of the chips and excess edge that may be near the group.
- Lubricate the linear bearings every 3 months.
- Check manually daily, without pneumatic pressure, the group must go up and down correctly, without any obstruction.
- Check daily without air pressure, moving unit by hand that it goes up, down, forward and backward smoothly. In addition, there is not mechanical obstructions.

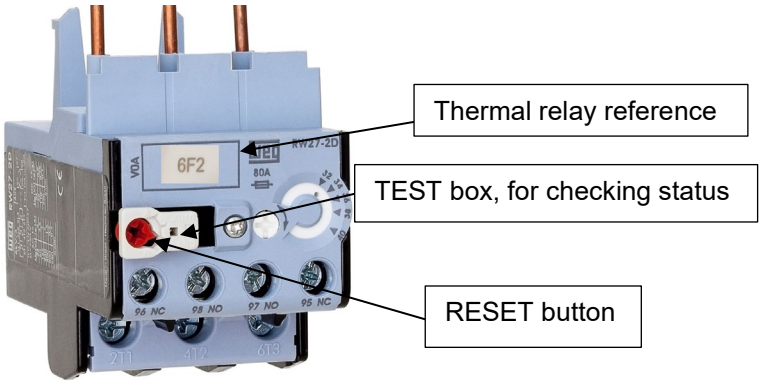
4.2 Tool change

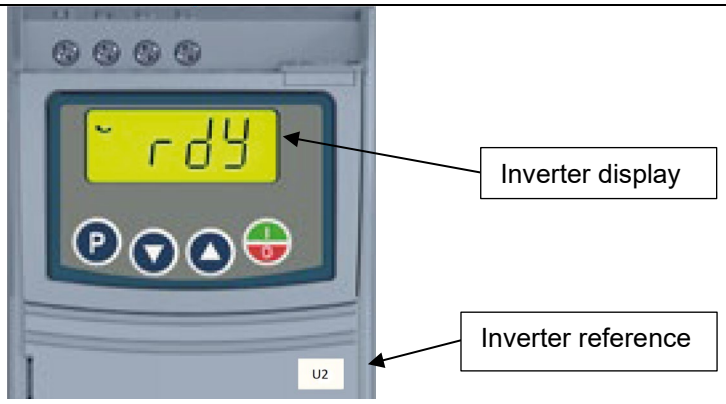


To replace the cutter block, follow these steps:

- First, disconnect the machine electrically using the main switch.
- Remove the power connector plug from the machine unit.
- Hold the motor firmly with one hand and fully loosen the motor fixing bolt with the other.
- Without releasing the motor, loose the motor-plate fixing bolts. Now you can take out the motor.
- With motor out of the unit, replace the cutter block with a new one.

5 ALARMS

Alarm	Possibles cause	Solutions
S-30	20S-30 fault	Alarm due to 20S30 sensor malfunction. The fault appears because the machine's PLC has not received the signal from the 20S30 sensor when the group is down. To verify that, remove the compressed air from the machine, and check that the sensor turns on. You can loosen the sensor flange with a Phillips screwdriver and move the sensor, to verify that it has not moved out of position.
S-31	Limit switch 20S-14 fault	Replace the limit switch
	20S-31 fault	Check if the S31 sensor works correctly by removing the pneumatic pressure from the machine and moving the unit manually. If the unit fails at the front, because it is not able to reach the top position, you can increase the rise pressure on the MR1.1 pressure gauge.
S-32	20S-32 fault	Check if the S32 sensor is working properly. To do this, remove the pneumatic pressure from the machine, manually raise the end-trimming unit, and move the group horizontally and verify that the sensor reads the entire plate.
Thermic relay protection error	Thermal relay alarm Due to a motor malfunction	 Locate the thermal relays in the electrical panel. Check that the TEST box is yellow (usually green). Press the RESET button to clear the fault and you can reset the alarm. Contact the technical service to solve the fault. Meanwhile, work without the unit causing the failure. 5F3: End trimming unit.

Inverters Error	Low input voltage	
	Motor fault	
	Inverter damaged	Locate the inverter causing the fault; you can reset it by turning off the machine for 60 seconds and turning on again. If the fault persists, contact the technical service indicating the inverter and the fault that appears on the display. U1: Top & bottom trimmer, and end trimming.

6 ERRORS AND SOLUTIONS

Before making any adjustments to improve the finish, do the following:

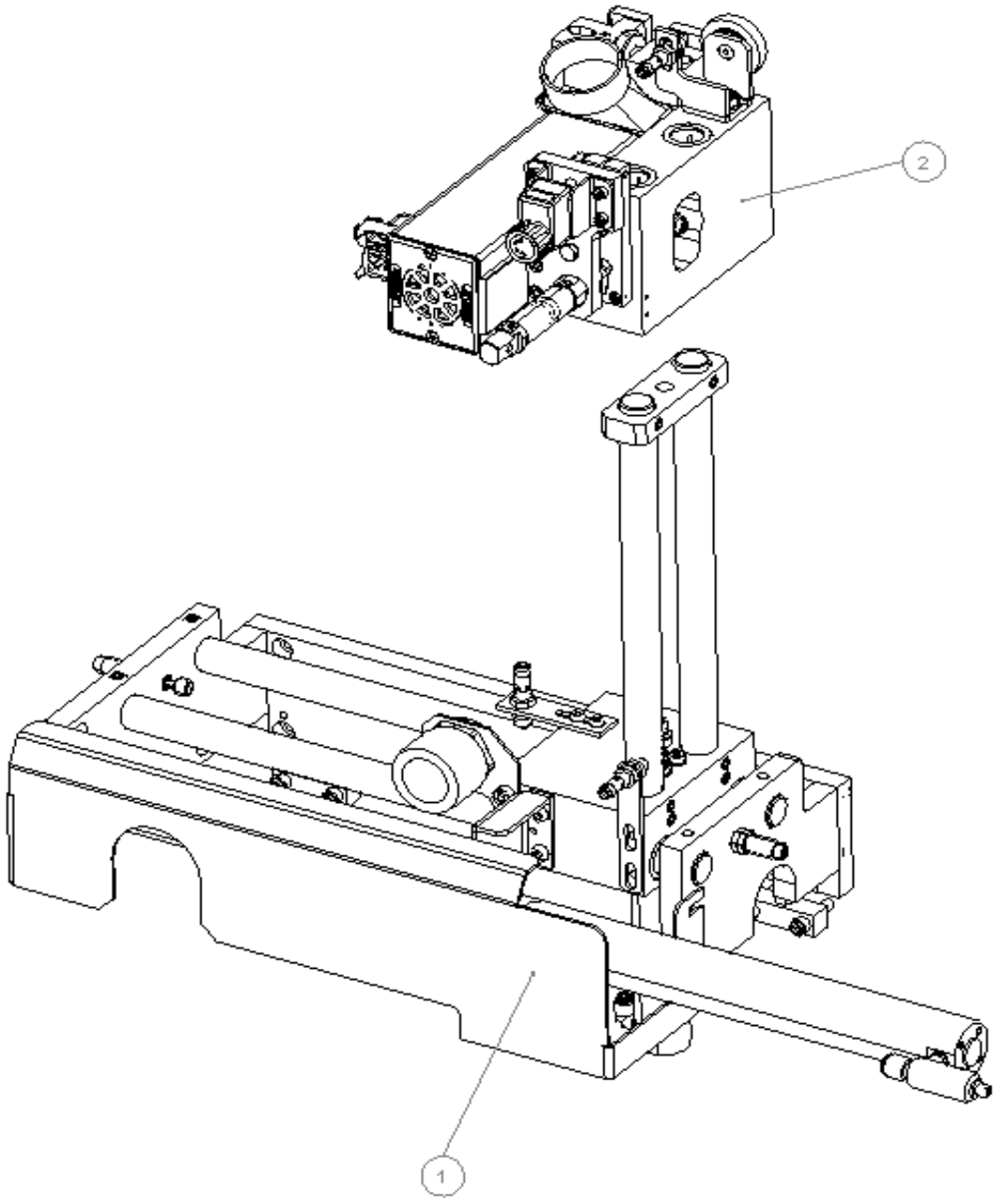
- Correct height of the pressure beam: Check that the pressure beam grips the panel well, and it does not move in its path.
- Correct guiding of the drag chain with a long board (+ 1.50m): Check with a long board that it follows its path with the infeeding fence. If the board separates at the front, or back, it may result in an incorrect finish.
- Cleaning the tracers (front, rear, and wheel): Check that the tracers do not have traces of glue or other elements that attribute to false tracing.
- Free movement: Remove the pneumatic pressure to the machine, and manually check the group, which rises and falls freely. Also, check that all sensors are working properly.

Continuous pressure: Reconnect the pressure and check that it is stable at 0.6MPa while machine is edgebanding.

Error	Possible cause	Solutions
Panel is moving	Incorrect pressure beam height	Adjust the pressure beam height according to the panel.
	Incorrect pneumatic pressure	Check pneumatic diagram to determine the correct pressure.
Starts the job early / late	Adjustment times from screen are incorrect	Contact with technical service.
Uneven finish	Cutting (guillotine) / Feeding times are not correct	Adjust the cutting and feeding time. The excess of the edge on front and back side of the panel should not exceel 5mm.

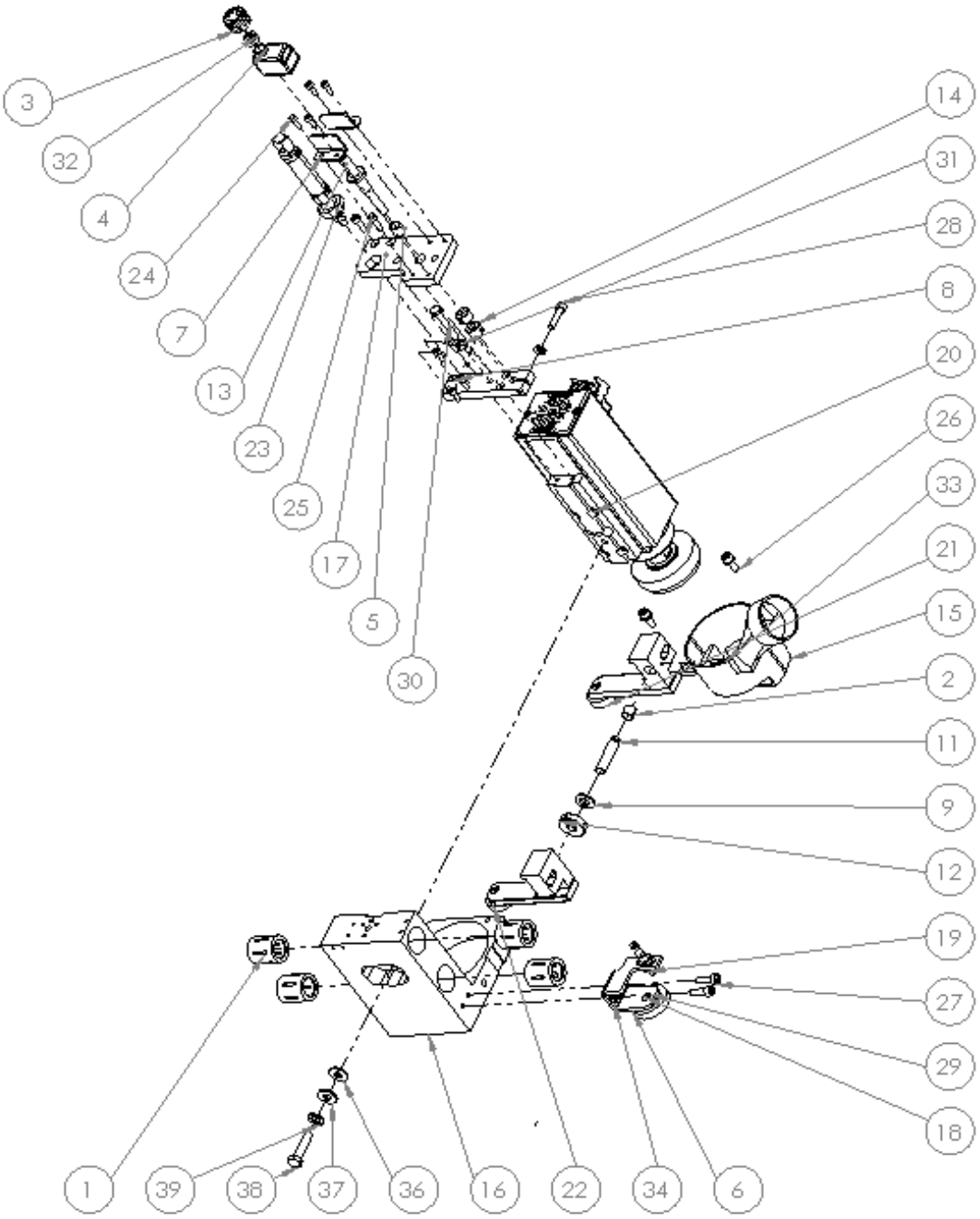
7 UNIT COMPOSITION

7.1 Complete unit



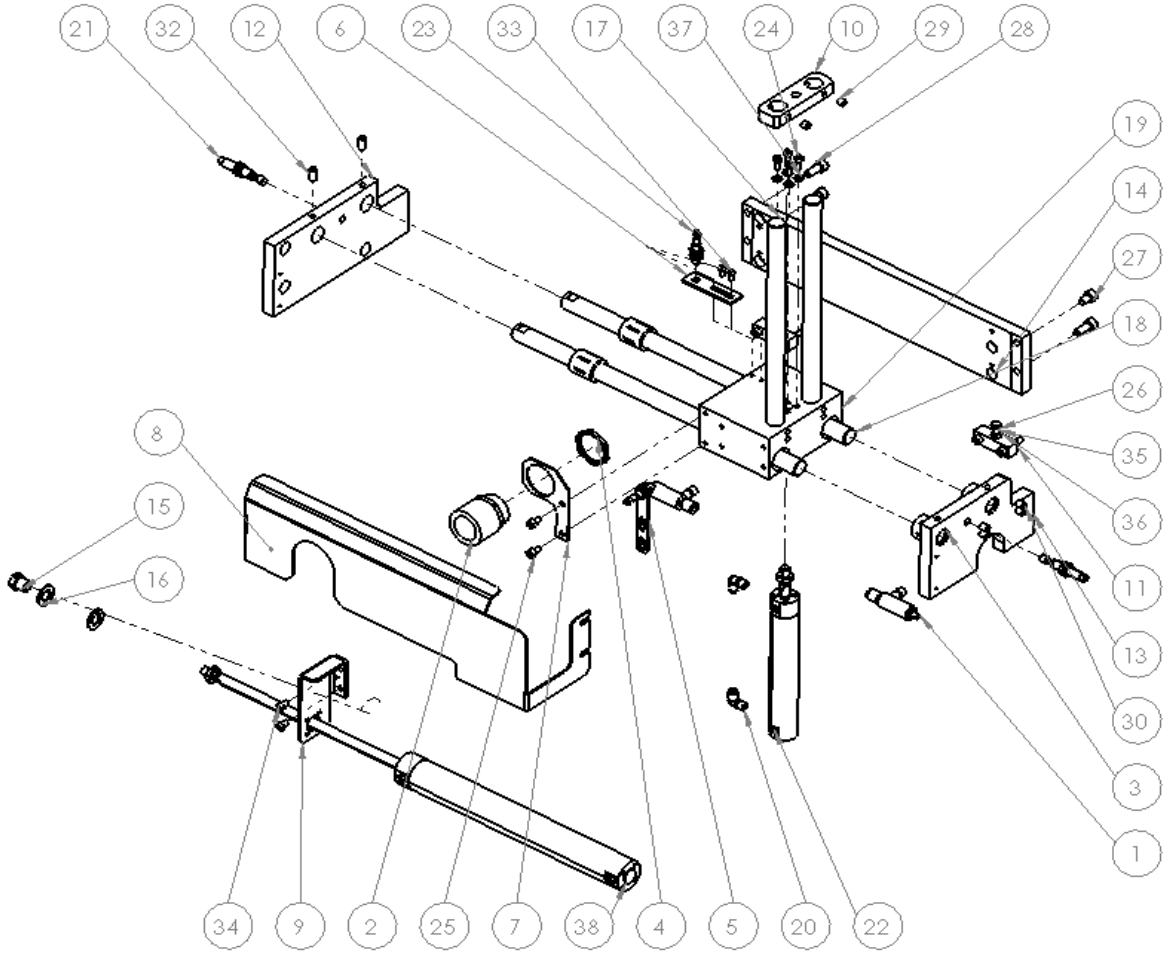
End trim unit 0800070			
#	**Qty.**	**Description**	**Reference**
1	1	Main support assembly	5005147
2	1	Motor assembly with support	5004623

7.2 Motor assembly



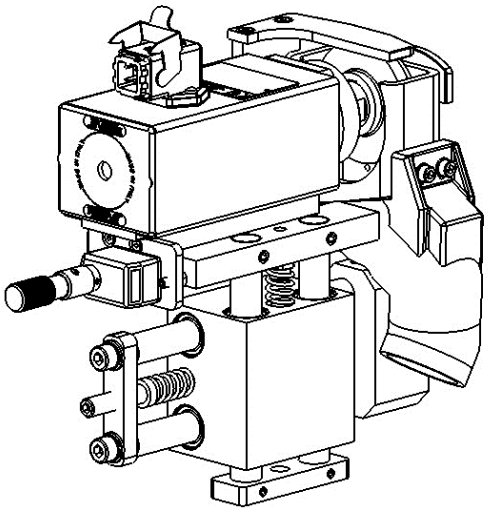
Motor assembly 2 positions 5004623			
#	**Qty.**	**Description**	**Reference**
1	4	Lineal bearing KH2030- PP	102000161
2	1	Friction gasket	102000168
3	1	Fluted grip MDX.50-S-C2	102000599
4	1	DD50-AN-01.0-D-C2	102000601
5	1	PAP1010	102000602
6	1	Wheel tracer and sensor holder	401004867
7	2	Pneumatic siko support plate	401005876
8	1	Frontal plate	403002682
9	1	Copper washer 10.5x20x2	404000295
10	1	Bearing shaft	404001021
11	1	Adjustment shaft	404001433
12	1	Top positioners	404001434
13	1	Adjustment shaft (2P)	404001744
14	2	Gasket M8x1	404001763
15	1	Dust collector tuve	408000213
16	1	Central block	409000434
17	1	Position plate (2pos)	409000580
18	1	Rubberized bearing 6001-2Z	5003502
19	1	E2B S08KS02 MC B1	5003580
20	1	Motor assembly	5004624
21	1	Rear tracer assembly	5004625
22	1	Front tracer assembly	5004626
23	1	Piston C85N16-20	5004847
24	8	Allen bolt DIN 912 M4 x 12 (Thread 12mm)	6310401201
25	2	Allen bolt DIN 912 M5 x 16 (Thread 16mm)	6310501601
26	3	Allen bolt DIN 912 M6 x 16 (Thread 16mm)	6310601601
27	2	Allen bolt DIN 912 M6 x 20 (Thread 20mm)	6310602001
28	1	Allen bolt DIN 912 M6 x 25 (Thread 25mm)	6310602501
29	1	Bolt DIN7991, M5 X 12 ROSCA:12mm	6320501202
30	1	Hex bolt DIN933, M6 X 40	6360604001
31	1	Hex nut DIN934, M6	6410600001
32	2	Hex nut (lower) DIN936, M8	6410800021
33	1	Parallel pin DIN6325, 3 X 18 - A - St	6520301801
34	6	Washer DIN 125 M6	6610600001
36	1	D20 d8,3 e2,5 (NYLON)	404001829
37	1	D20 d8,5 e2,5	404001828
38	1	Hex bolt DIN933, M8 X 35	6360803501
39	1	Washer GLOVER DIN127 M10	6621000001

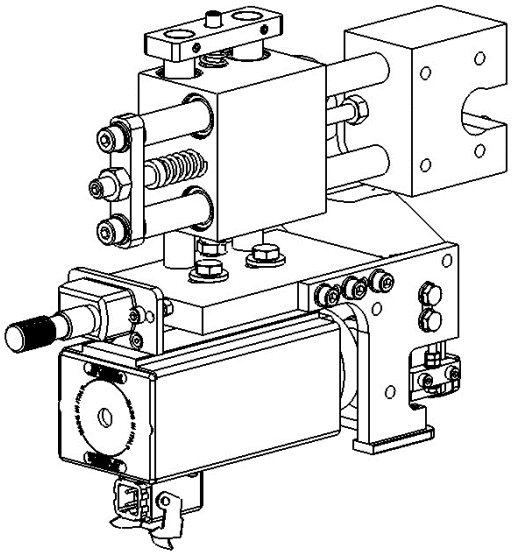
7.3 Unit support assembly



Unit support assembly 5005147			
#	**Qty.**	**Description**	**Reference**
1	2	ASV310F-01-06S	101000068
2	1	Conector PG29	102000157
3	4	Lineal bearing KH2030- PP	102000161
4	1	Nut PG29	102000162
5	1	Vertical sensor detector plate	401004374
6	1	Frontal sensor detector plate	401004375
7	1	DN29 support	401004949
8	1	Protection	401006053
9	1	Chapa soporte cilindro con grupo	401006129
10	1	Brida vertical	403000362
11	2	Adjustment handrail	403000536
12	1	Bottom flange with adjustment	403001899
13	1	Bottom flange with adjustment (output)	403001900
14	1	Fixing support	403002779
15	1	Cylinder fixing nut	404000296
16	2	Top position washer	404000335
17	2	Vertical long rod	404000698
18	2	Horizontal rod	404001796
19	1	Rods block	408000179
20	2	CODO 1/8 SMC KQ2L06-01AS	4410906101
21	2	RBC1007	5003411
22	1	CDG1BN25 125Z	5003578
23	2	E2B S08KS02 MC B1	5003580
24	4	Allen bolt DIN 912 M5 x 12 (Thread 12mm)	6310501201
25	2	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
26	4	Allen bolt DIN 912 M6 x 30 (Thread 30mm)	6310603001
27	1	Allen bolt DIN 912 M8 x 12 (Thread 12mm)	6310801201
28	3	Allen bolt DIN 912 M8 x 20 (Thread 20mm)	6310802001
29	2	Grub screw DIN913 M8 X 8	6330800801
30	4	Grub screw DIN913 M8 X 10	6330801001
31	2	Grub screw DIN913 M8 X 12	6330801201
32	2	Grub screw DIN913 M8 X 16	6330801601
33	2	Bolt, DIN7380 M5 X 10	6340501001
34	2	bolt, DIN7380 M6 X 10	6340601001
35	2	Hex bolt DIN933, M6 X 30	6360603001
36	2	Hex nut DIN934, M6	6410600001
37	4	Dented washer DIN6798 M6	6660600001
38	1	Cylinder CDG1BN32TF 250Z	

MAKSIWA CBC.P
TRIMMING UNIT





Unit: MAKSIWA CBC.P Trimming unit
Revision: 01 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The trimming group has the function of cutting the excess edge at the top and bottom with total accuracy, and making a radius or flat finish with a simple adjustment.

	Frequency (Hz)	Speed (rpm)	Top motor (kW)	Bottom motor (kW)
PF-2	200	12,000	0.27	0.27

2 SCREEN SELECTION AND UNIT ACTIVATION

2.1 Screen selection

ON	OFF
	

3 UNIT ADJUSTMENT

Security warning

A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

The trimming unit has cutting blades that can cause serious damage under improper use of the unit.

Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling, disconnection of the unit is essential.

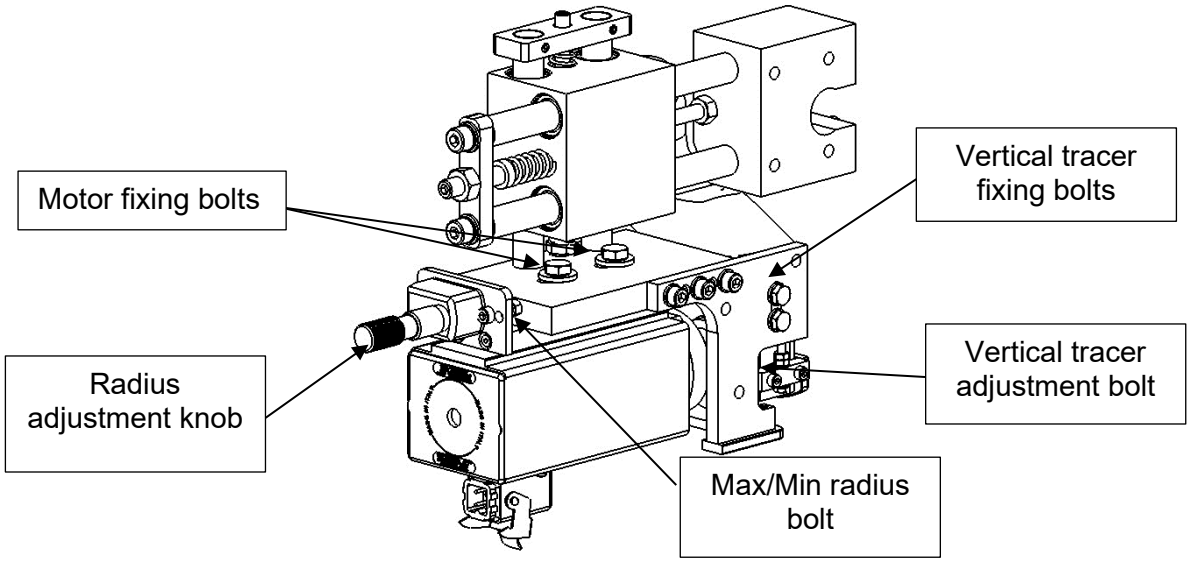
Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

3.1 Electric composition

This configuration detailed below might change. Please check the update electric diagram to confirm the correct electric components.

	Motor	Thermal relay	Inverter
Top motor	5M1	5F1	U1
Bottom motor	5M2	5F2	

3.2 Unit adjustment points



3.2.1 Radius adjustment

- Loose the frontal motor fixing bolts and turn the knob for changing the radius.
- Turn clockwise to decrease the radius and counter-clockwise to increase.
- Use the SIKO counter as reference, for example, if the unit is equipped with radius 2.0 mm knives, set SIKO counter at 020 for 2.0 mm tape and 004 for 0.4 mm tape.
- Trimmer without SIKO counter option, use Max/Min radius bolt as reference while adjusting the radius. Never alter the position of this bolt.
- You may need to adjust the top / bottom overhang when adjusting the radius.

3.2.2 Vertical tracer adjustment (edge overhang)

- Loose the vertical tracer fixing bolts and use a 7 mm spanner turn the vertical tracer for increasing or decreasing the overhang on top or bottom side of panel.
- Turn the bolt clockwise to leave less excess and counter-clockwise to leave more excess.

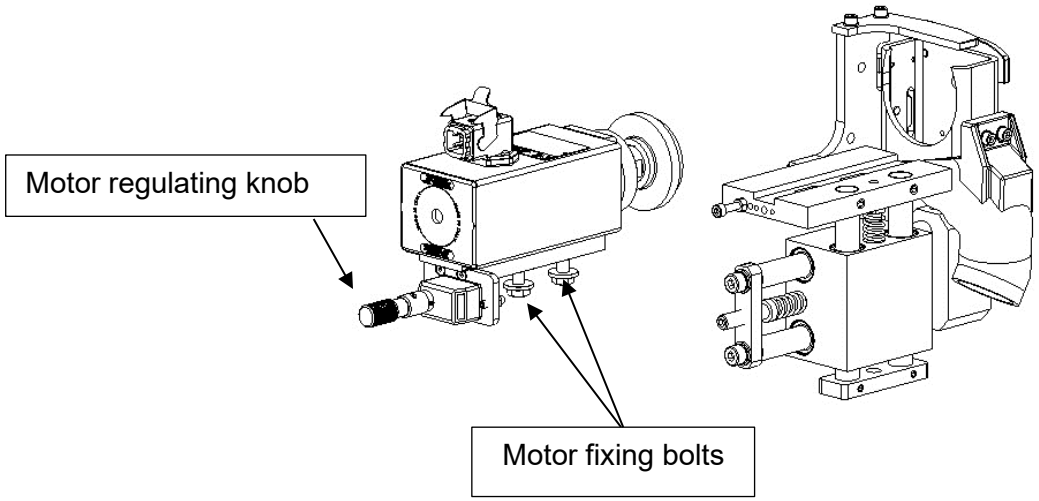
4 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air. Only trained personnel can perform these operations.

General maintenance

- Clean daily unit tracers with a mild thinner.
- Remove (vacuum) any chips or debris near the unit.
- Grease the support bars (every 3 months).
- Check unit vertical and frontal tension.

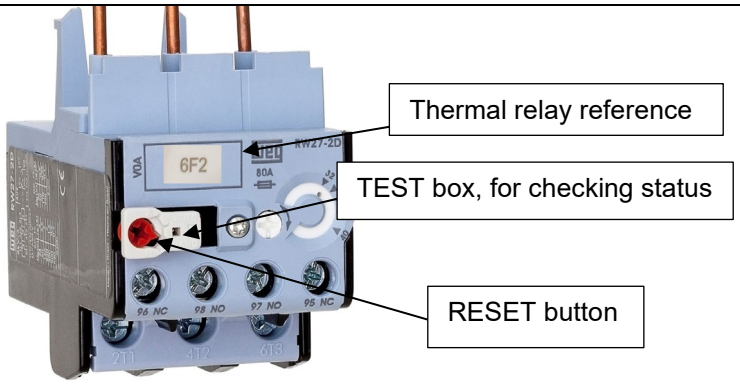
4.1 Tool change

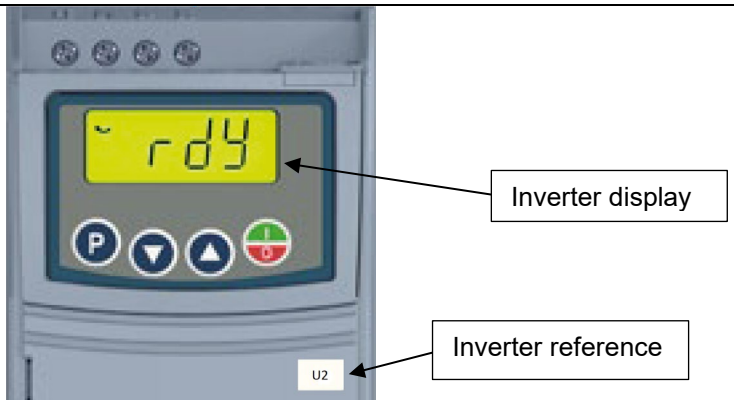


To replace the cutter block, follow these steps:

- First, disconnect the machine electrically using the main switch.
- Remove the power connector plug from the machine unit.
- Hold the motor firmly with one hand and fully loosen the fixing bolts with the other.
- Without releasing the motor, loose the motor regulating knob completely. Now you can take out the motor.
- With motor out of the unit, replace the cutter block with a new one (or just the inserts).

5 ALARMS

<table>
<tr><th>Alarm</th><th>Possible cause</th><th>Solution</th></tr>
<tr><td>Thermic relay</td><td>Thermal relay alarm due to a motor malfunction</td><td> 

Locate the thermal relays in the electrical panel. Check that the TEST box is yellow (usually green). Press the RESET button to clear the fault and you can reset the alarm. Contact the technical service to solve the fault. Meanwhile, work without the unit causing the failure.
5F1: Top trimming.
5F2: Bottom trimming.</td></tr>
<tr><td rowspan="4">Inverter</td><td>Low input voltage</td><td rowspan="4"> 

Locate the inverter causing the fault; you can reset it by turning off the machine for 60 seconds and turning on again. If the fault persists, contact the technical service indicating the inverter and the fault that appears on the display.
U1: Top bottom trimming & end trimming.</td></tr>
<tr><td>Motor failure</td></tr>
<tr><td>Inverter fault</td></tr>
<tr><td>Worn tools</td></tr>
</table>

6 ERRORS AND SOLUTIONS

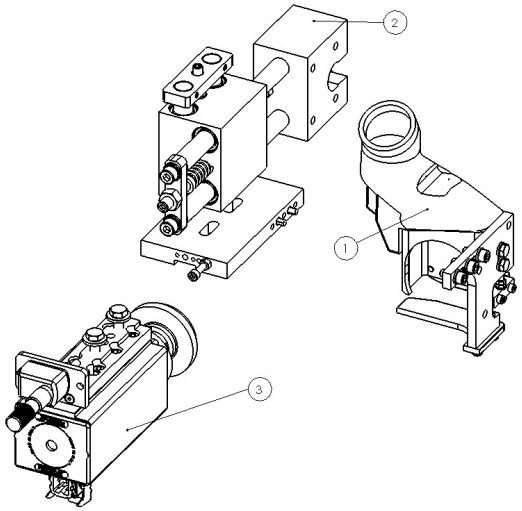
Before making any adjustments to improve the finish, do the following:

- Correct height of the pressure beam: Check that the pressure beam grips the panel well, and it does not move in its path.
- Correct guiding of the drag chain with a long board (+ 1.50m): Check with a long board that it follows its path with the infeeding fence. If the board separates at the front, or back, it may result in an incorrect radius.
- Cleaning the tracers (front and top / bottom): Check that the tracers are free of glue residue or other elements that may cause false tracing.
- Free movement: Manually check the unit withdrawing by hand, it turns correctly and has a uniform pressure (horizontal and vertical tracing).
- Horizontal / vertical tracing: Check that the unit when working moves (traces) from 0.5 -- 1.5mm (maximum) front and 1.5mm vertically.

Fault	Posibles cause	Solutions
Incorrect radius	Incorrect pressure beam height	Adjust the pressure beam height according to the panel.
	Radius adjustment	Following the adjutment instructions, increase/descrease the radius.
Watermarks	Tracer with glue residue	Clean the tracers with a mild thinner.
	Cutters damages	Replace the cutters

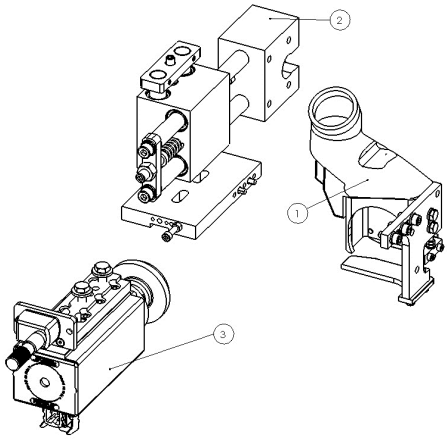
7 UNIT COMPOSITION

7.1 Bottom trimmer



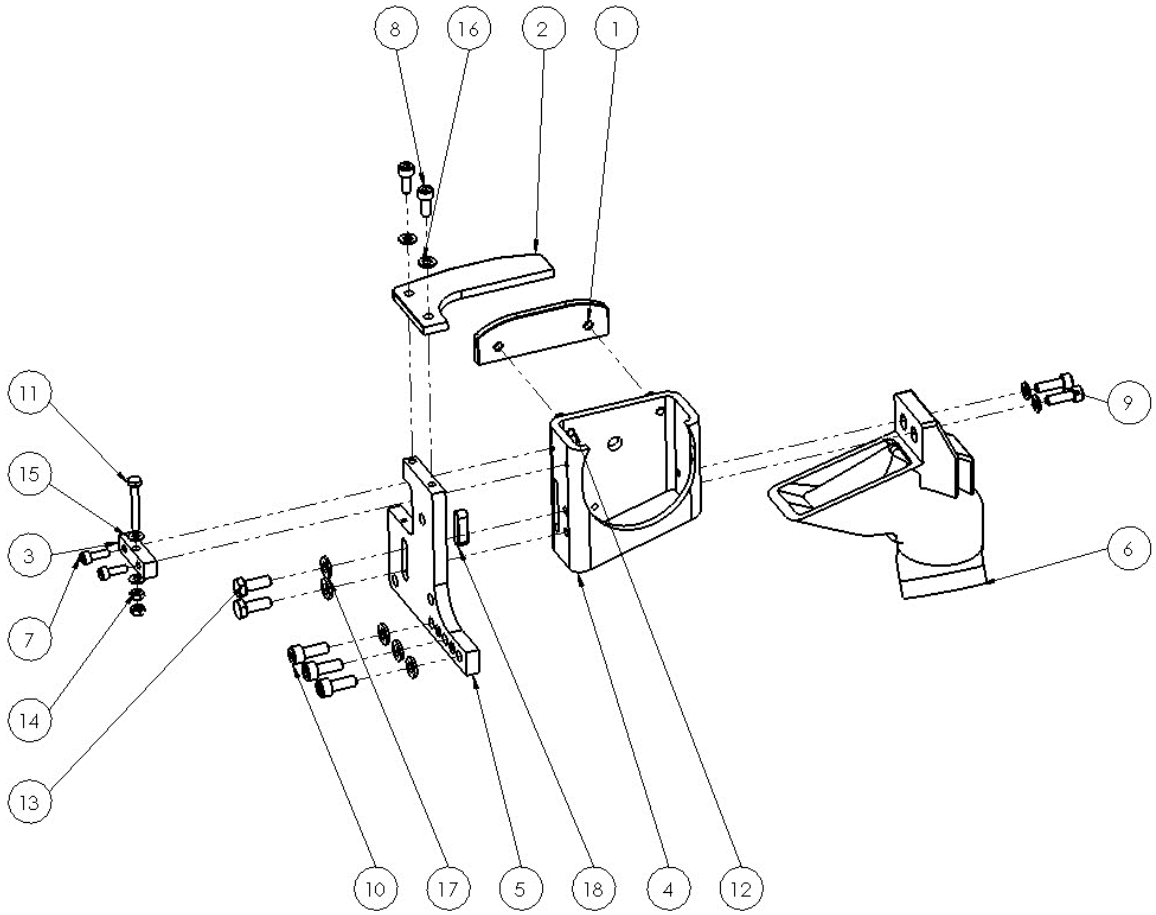
0900248 Bottom trimmer			
#	**Qty.**	**Description**	**Reference**
1	1	Tracers assembly	5005444
2	1	Bottom trimmer support assembly	5003859
3	1	Motor assembly	5005443

7.2 Top trimmer



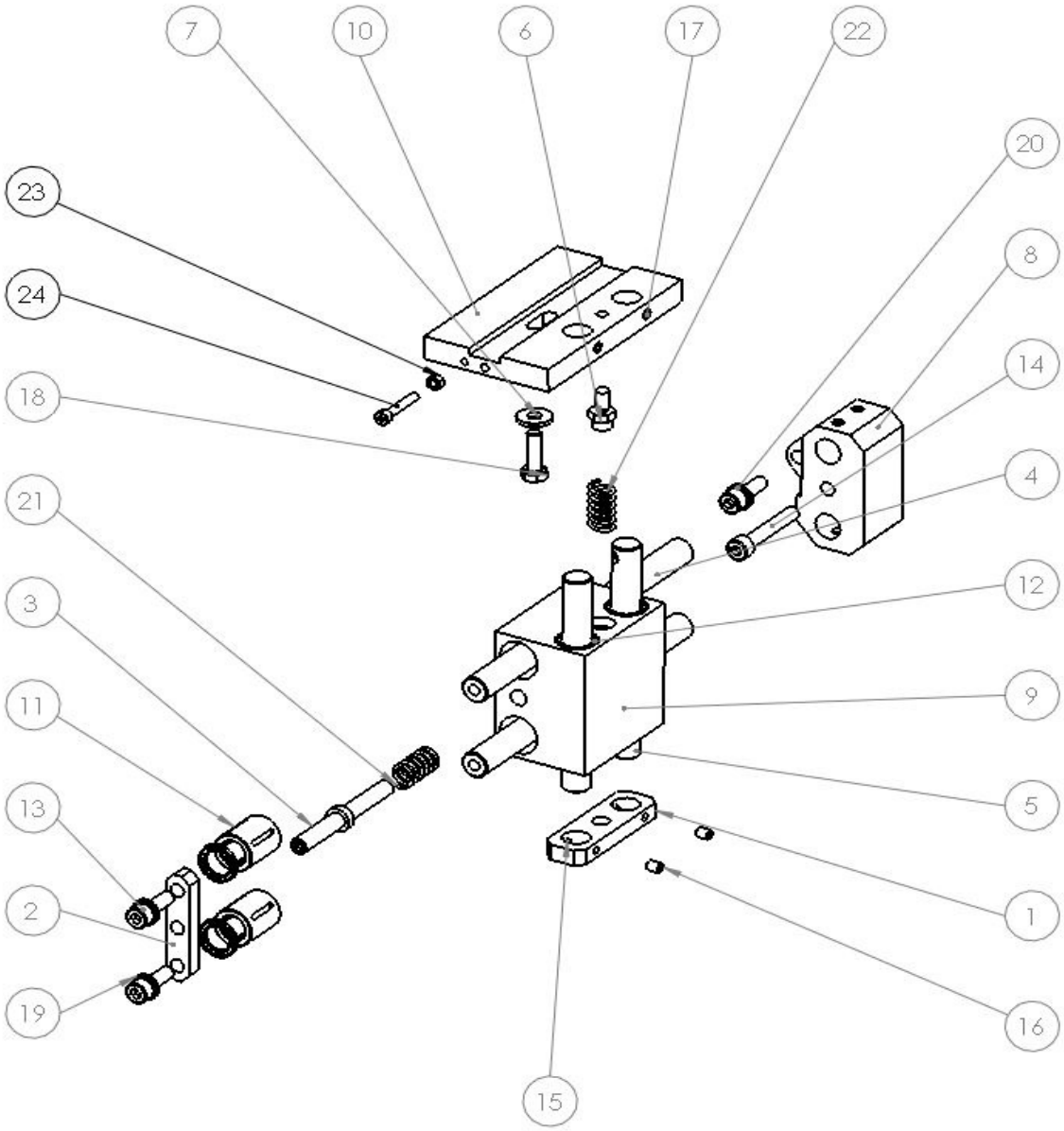
0900248 Top trimmer assembly			
Nº	**Qty.**	**Description**	**Reference**
1	1	Tracers assembly	5005444
2	1	Top trimmer support assembly	5003883
3	1	Motor assembly	5005443

7.3 Tracers assembly



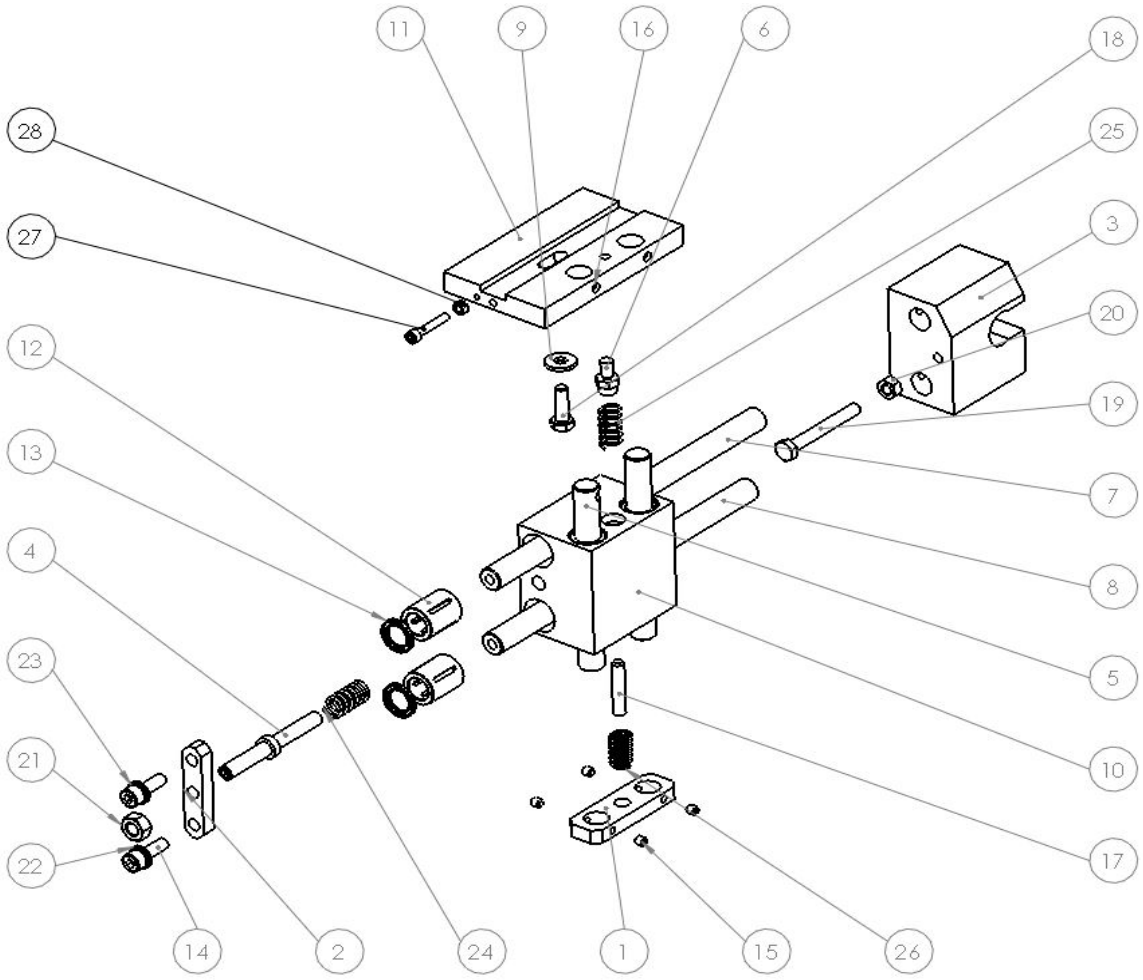
Tracers assembly 5005444			
#	**Qty.**	**Description**	**Reference**
1	1	Tracer	403002180
2	1	Frontal tracer	403002347
3	1	Vertical tracer handrail	403002925
4	1	Vertical tracer holder	405000511
5	1	Vertical tracer adjustment	407000356
6	1	Dust collector hose	408000191
7	2	Allen bolt DIN 912 M4 x 12 (Thread 12mm)	6310401201
8	2	Allen bolt DIN 912 M5 x 12 (Thread 12mm)	6310501201
9	2	Allen bolt DIN 912 M5 x 16 (Thread 16mm)	6310501601
10	3	Allen bolt DIN 912 M6 x 16 (Thread 16mm)	6310601601
11	1	Hex bolt DIN933, M4 X 30	6360403001
12	2	Hex bolt DIN933, M5 X 12	6360501201
13	2	Hex bolt DIN933, M6 X 16	6360601601
14	2	Hex nut DIN934 M4	6410400001
15	2	Washer DIN 125 M4	6610400001
16	4	Washer DIN 125 M5	6610500001
17	5	Washer DIN 125 M6	6610600001
18	1	Pin A6x6x22 DIN 6885	6410500001

7.4 Bottom trimmer Support assembly



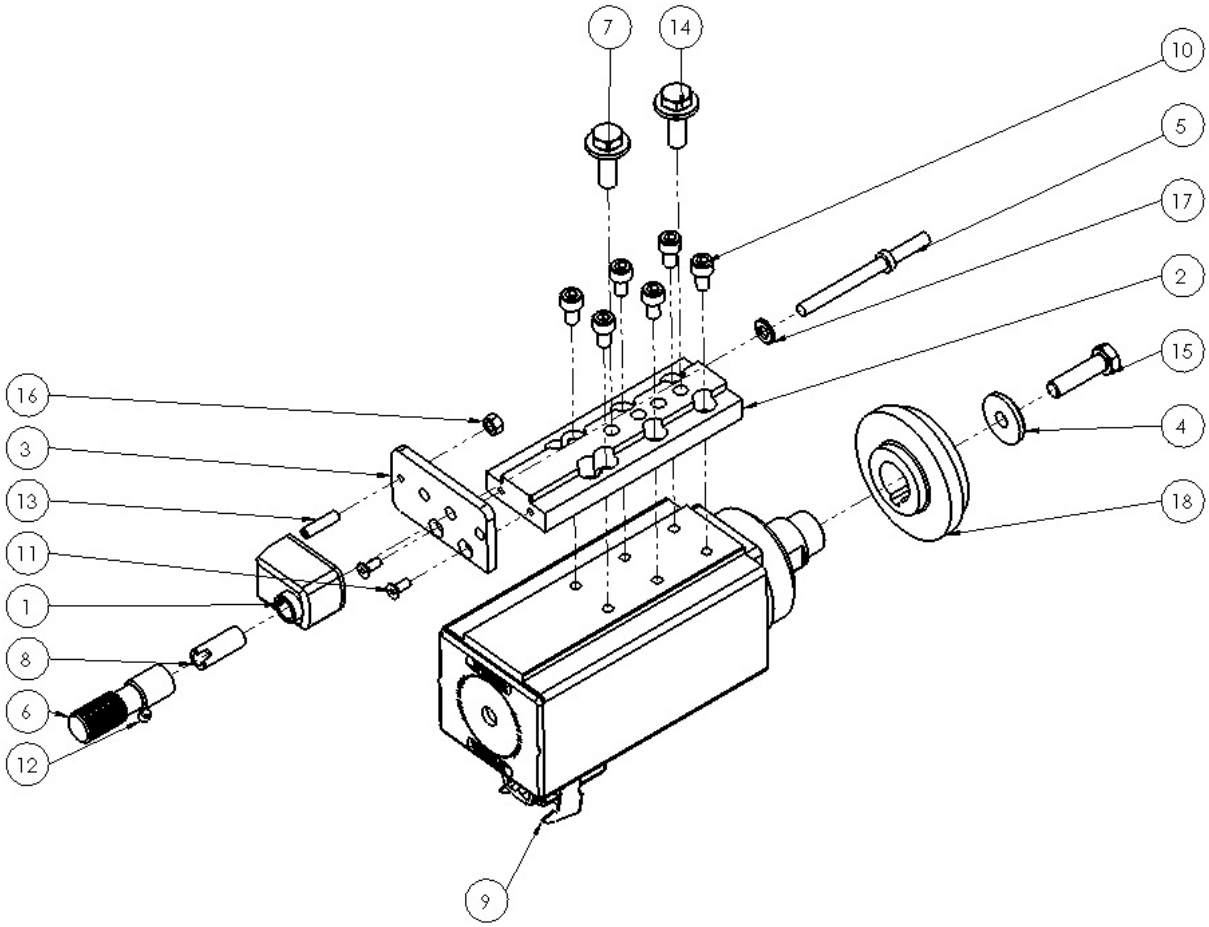
Bottom trimmer support assembly 5003859			
#	**Qty.**	**Desciption**	**Reference**
1	1	Vertical flange	403000388
2	1	Frontal flange	403000389
3	1	Frontal tracer adjustment	404000138
4	2	Frontal support rod bottom block	404000270
5	2	Vertical support rod	404000271
6	1	vertical spring shaft	404000274
7	1	Washer 20 x 8.25 x 2.5	404000804
8	1	Bottom unit suport	408000036
9	1	Main holding block	409000078
10	1	Motor support plate	409000467
11	8	Bearing KH 1630	6171630001
12	8	Bearing lock 16x24x3	6191624031
13	3	Allen bolt DIN 912 M8 x 25 (ROSCA 25mm)	6310802501
14	1	Allen bolt DIN 912 M8 x 50 (ROSCA 50mm)	6310805001
15	2	Grub screw DIN913 M5 X 8	6330500801
16	2	Grub screw DIN913 M6 X 8	6330600801
17	6	DIN 913 - M8 x 8-N	
18	1	Hex bolt DIN933, M8 X 25	6360802501
19	3	WasherDIN 125 M8	6610800001
20	3	DIN 6905-7.4-FSt	
21	1	Tension spring	9294031501
22	1	Tension spring	9294031501
23	1	Hex bolt DIN934, M5	6410500001
24	1	Allen bolt DIN 912 M5 x 30 (ROSCA 22mm)	6310503001

7.5 Top trimmer support assembly



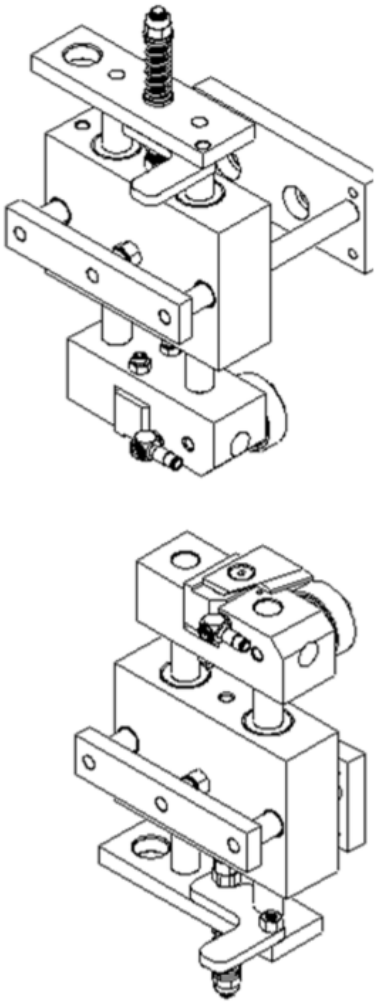
Top trimmer support assembly 5003883			
Nº	**Qty.**	**Description**	**Reference**
1	1	Vertical flange	403000388
2	1	Frontal flange	403000389
3	1	Top trimmer support	403000695
4	1	Frontal tracer adjustment	404000138
5	2	Vertical support rod	404000271
6	1	Vertical spring shaft	404000274
7	1	Top frontal support rod	404000301
8	1	Top frontal support rod (short)	404000303
9	1	Washer 20 x 8.25 x 2.5	404000804
10	1	Main block	409000078
11	1	Motor plate	409000467
12	8	Bearing KH 1630	6171630001
13	8	Bearing ratiner 16x24x3	6191624031
14	2	Allen bolt DIN 912 M8 x 25 (Thread 25mm)	6310802501
15	4	Bolt DIN913 M6 X 6	6330600601
16	2	DIN 913 - M8 x 8-N	
17	1	Grub screw DIN913 M8 X 40	6330804001
18	1	Hex bolt DIN933, M8 X 25	6360802501
19	1	Hex bolt DIN933, M8 X 65	6360806501
20	1	Hex nut DIN934, M8	6410800001
21	1	Hex nut DIN934, M10	6411000001
22	2	Washer DIN 125 M8	6610800001
23	2	DIN 6905-7.4-FSt	
24	1	Tension spring	9294031501
25	1	Tension spring 24000315A- 2400336	9294031511
26	1	Tension spring 24000315A- 2400336	9294031511
27	1	Allen bolt DIN 912 M5 x 30 (ROSCA 22mm)	6310503001
28	1	Hex bolt DIN934, M5	6410500001

7.6 Motor assembly



Motor assembly 5005443			
#	**Qty.**	**Description**	**Reference**
1	1	D D50-AN-01 0-D-C3	102000713
2	1	Motor plate	403000392
3	1	Counter indicator support	403002924
4	1	Motor adjustment knob	404000161
5	1	Frontal tracer regulation adjustment	404000240
6	1	Frontal tracer tensioner adjustment	404000273
7	2	Washer 20 x 8.25 x 2.5	404000804
8	1	Siko counter bushing	405000067
9	1	Motor Teknomotor JC-2	5800550721
10	6	Allen bolt DIN 912 M6 x 10 (Thread 10mm)	6310601001
11	2	Bolt DIN7991, M4 X 12 Thread:7.6mm	6320401002
12	1	Grub screw DIN913 M5 X 5	6330500501
13	1	Grub screw DIN913 M5 X 20	6330502001
14	2	Hex bolt DIN933, M8 X 30	6360802501
15	1	Hex nut DIN933 M8x30	6360803001
16	1	Hex nut DIN934, M5	6410500001
17	1	Copper washer M6	6610600201
18	1	Tool head 65x20 R2	9316520211

MAKSIWA CBC.P
GLUE SCRAPPER RR-8



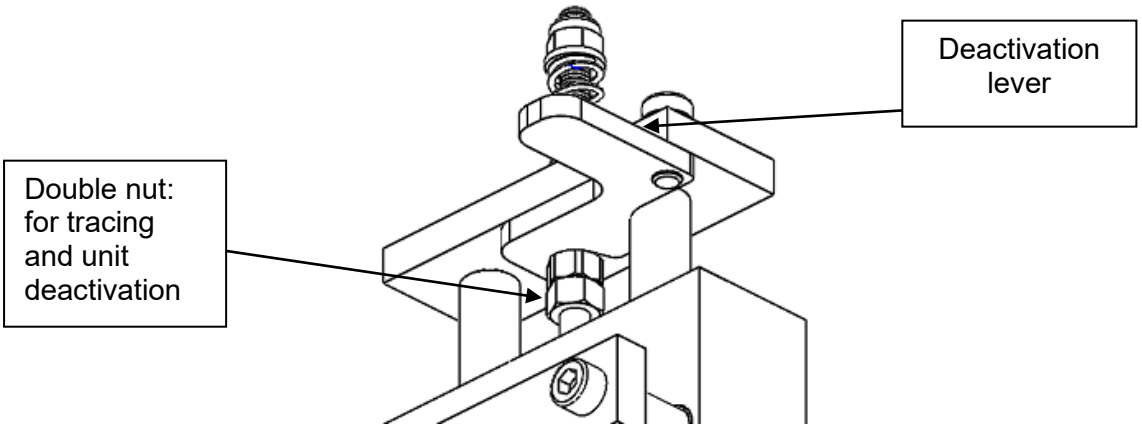
Unit: MAKSIWA CBC.P Glue scrapper unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The glue scraper removes excess of glue that may have remained in the gluing process and leave a better finish. It consists of a vertical bearing tracer that acts on the panel and a blade that attacks the edge to eliminate excess of glue.

2 OPERATION AND ADJUSTMENT

2.1 Manual activation



To activate the unit, you must remove the deactivation lever from the copying nuts. To deactivate the unit again, lift the group slightly, and insert the deactivation lever.

2.2 Unit adjustment

Security warning

A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

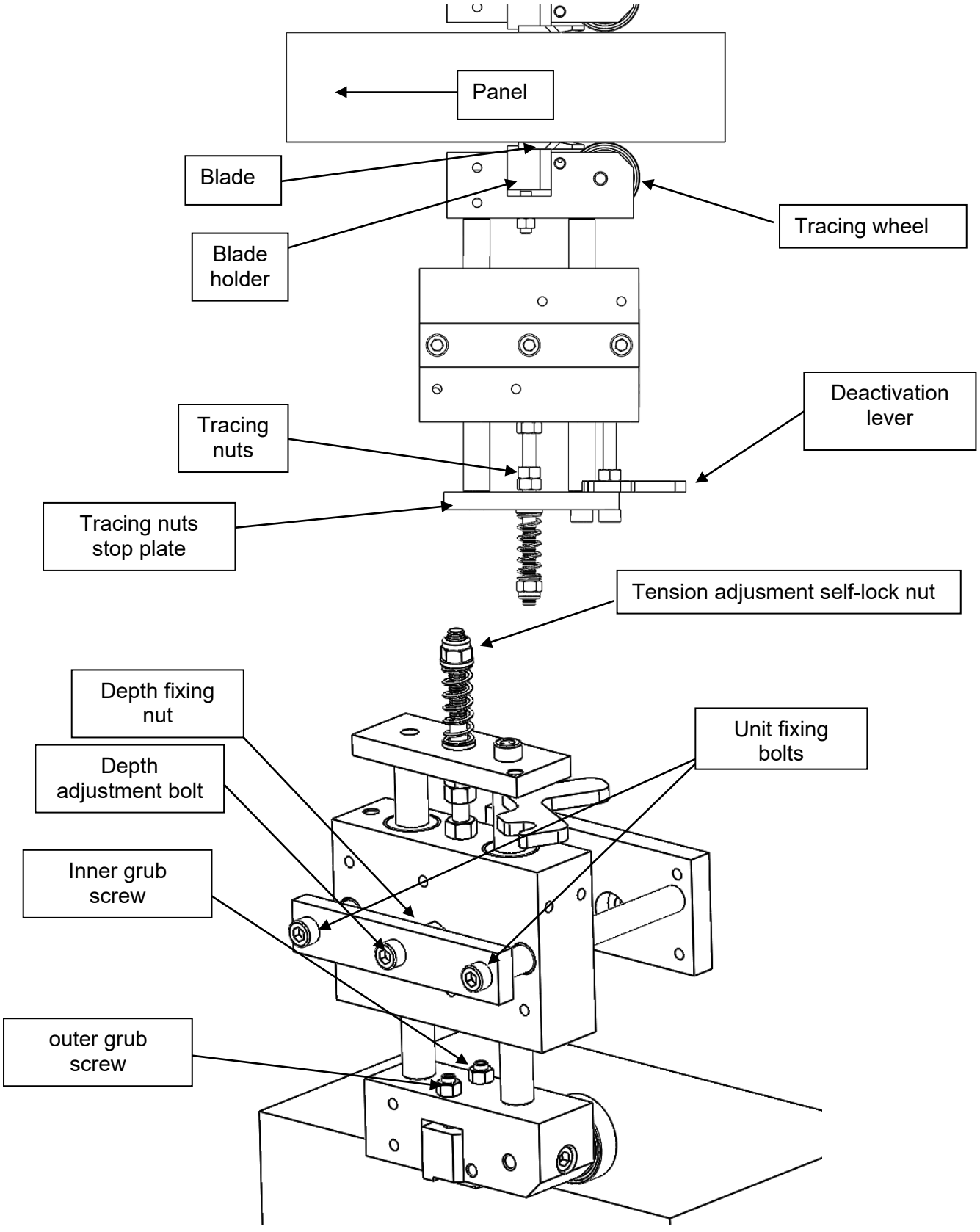
The premilling unit has cutting blades that can cause serious damage under improper use of the unit.

Do not adjust the unit while the machine is running to avoid enrolment with the chain. For proper handling, disconnection of the unit is essential.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

Please observe the next page, in order to understand the following adjustment points:

- Tracing adjustment
- Tracer wheel adjustment
- Tracer wheel adjustment
- Cutter block adjustment


Panel
Blade
Blade holder
Tracing wheel
Tracing nuts
Deactivation lever
Tracing nuts stop plate
Tension adjusment self-lock nut
Depth fixing nut
Depth adjustment bolt
Unit fixing bolts
Inner grub screw
outer grub screw

2.2.1 Tracing adjustment

Stop the machine with the unit working on a panel, and confirm that the distance between tracing nuts and tracing nuts stop plate is 1 mm.

2.2.2 Tension adjustment

Tension adjustment self-lock nut, if necessary, to increase the pressure on spring, so the unit works firmly on panel.

2.2.3 Tracing Wheel alignment

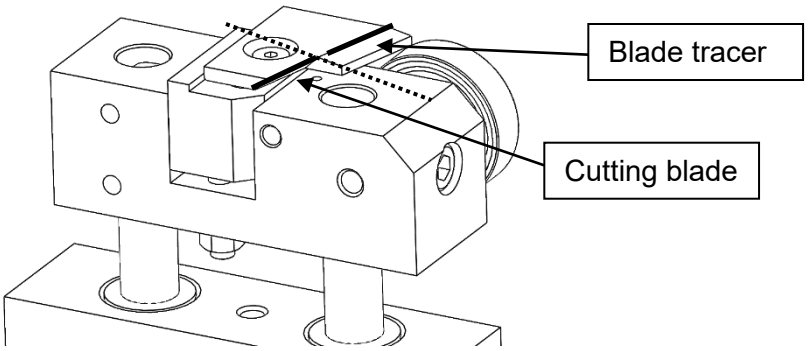
Adjust the bearing (if necessary). When the unit is working, the distance between the panel and bearing is minimum (0.05 mm). If the distance is bigger, the blade might dent the panel from front side.

Tracer wheel is an eccentric bearing. Use 10 mm spanner to release it and 19 mm spanner to adjust the height.

2.2.4 Cutter block adjustment

- Lose outer grub screw fixing nut and turn it clockwise to remove more overhang. This operation will expose more blade. If it not possible, lose the screw from inner grub screw.
- The blade holder can remain with a little bit a play (movement), this is normal. This movement will help to the blade to absorb any small bumps on panel and avoid marking it, thanks to the design of blade.

2.2.5 Depth adjustment



Lose depth fixing nut and use depth adjustment bolt for use minimum cutting blade on panel.

3 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

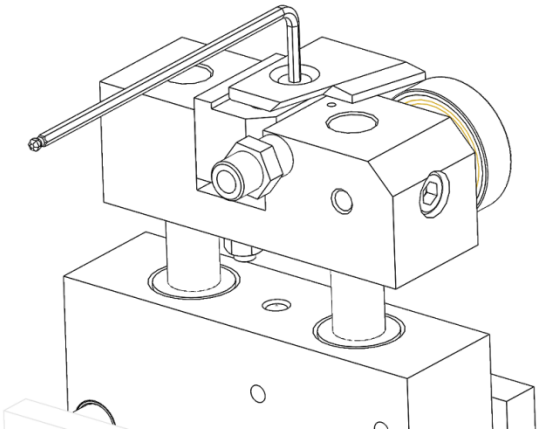
Only trained personnel can perform these operations.

3.1 General maintenance

- Clean the tracer of the unit daily with a mild cleaning agent.
- Clean the blades daily with a mild cleaning agent.
- Remove (vacuum) any chip debris and edge excess that may be near the unit.

3.2 Tool change

- Use a 3mm Allen key to remove the screw holding the blade.
- Clean the blade holder and before installing the new blade.

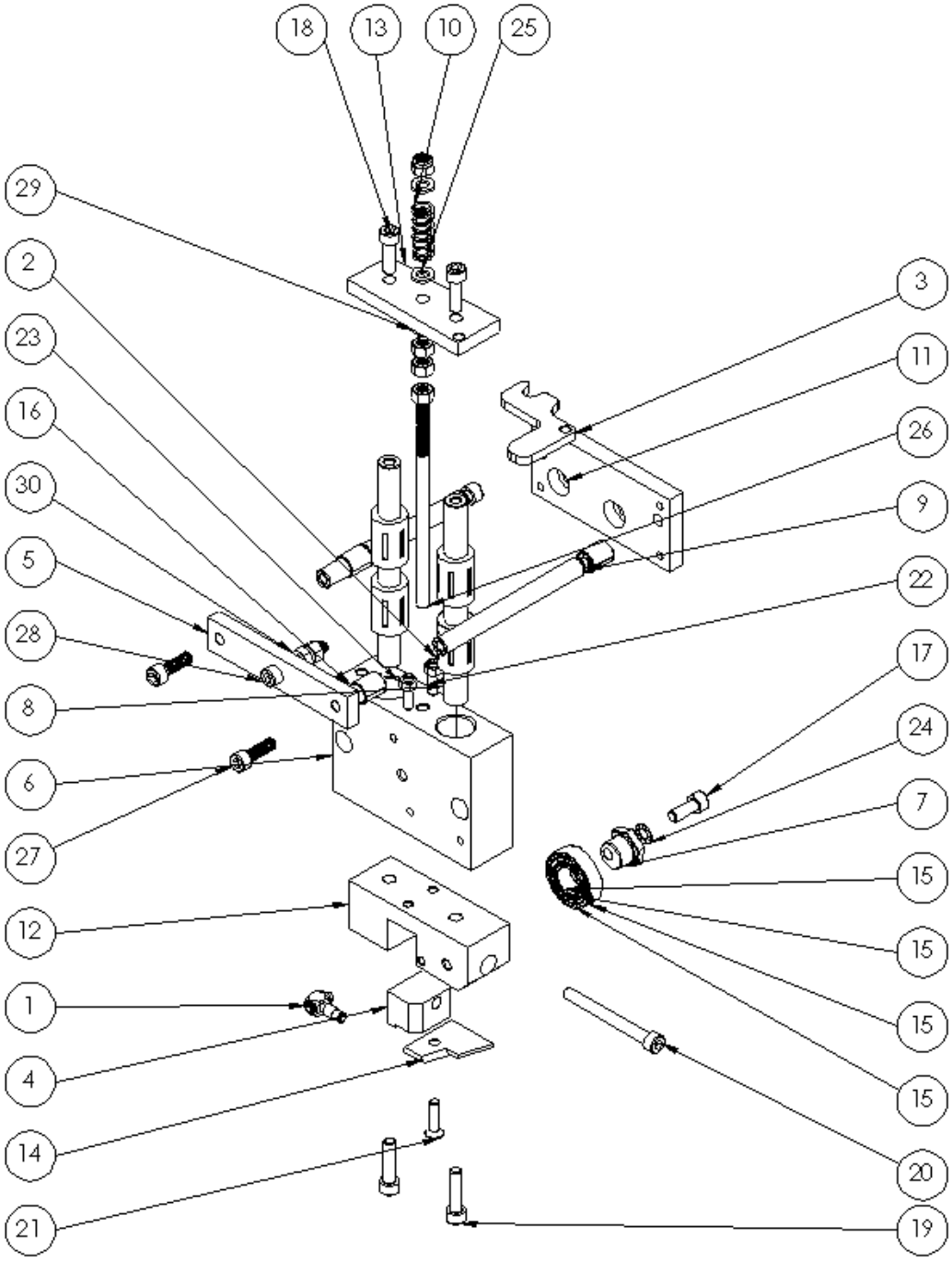


4 TROUBLESHOOTING

Fault	Possible cause	Solutions
Overhang	Blade is not clean	Clean the blade with a mild thinner.
	Incorrect unit tracing	Check if the unit is tracing 1mm.
	Blade damaged	Change the blade.
Panel with scratches	Irregular panel	Check with a freshly cut new panel to determine if the fault is coming from the board or the unit.
	Unit unaligned	Adjust the unit with the support of a trained technician.

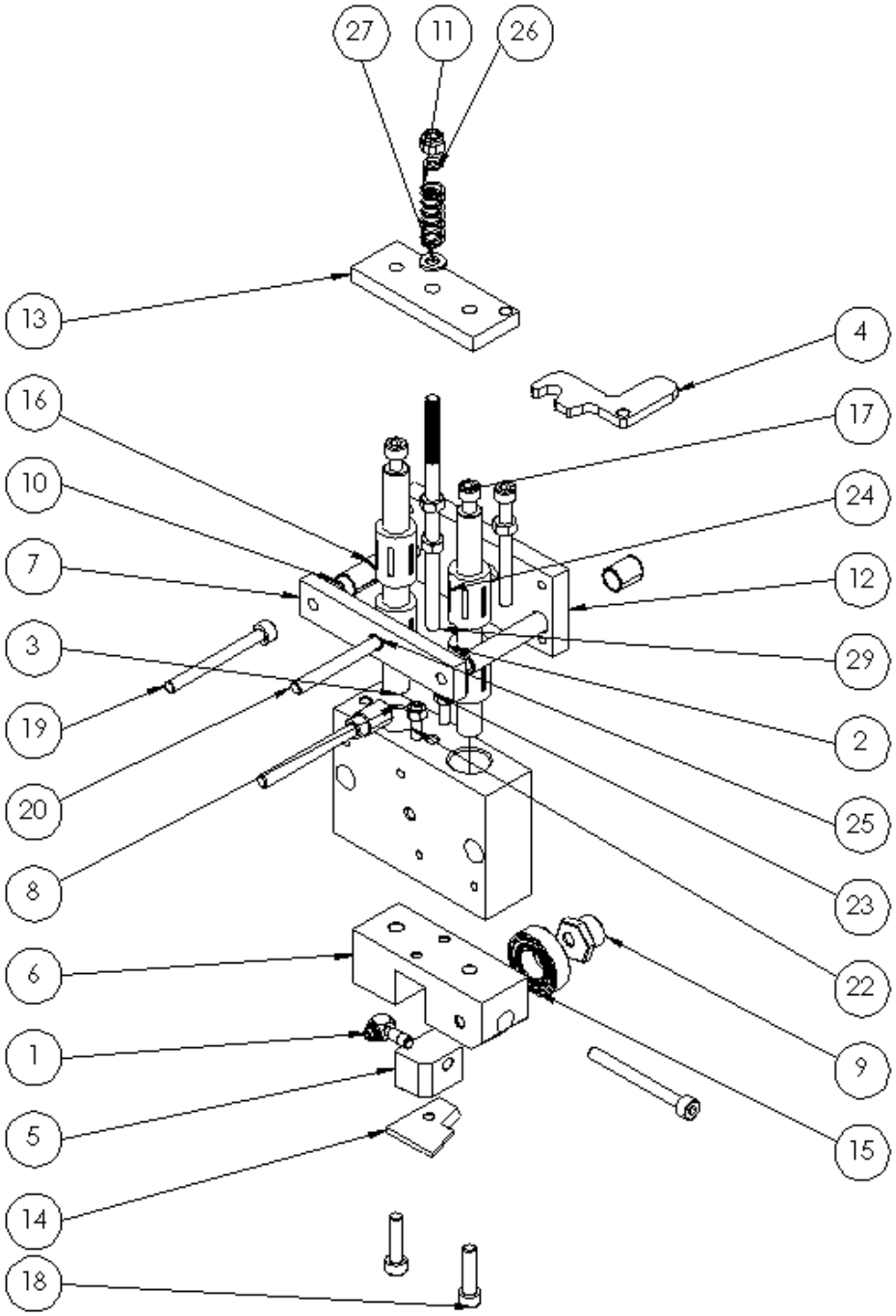
5 UNIT COMPOSITION

5.1 Top glue scrapper



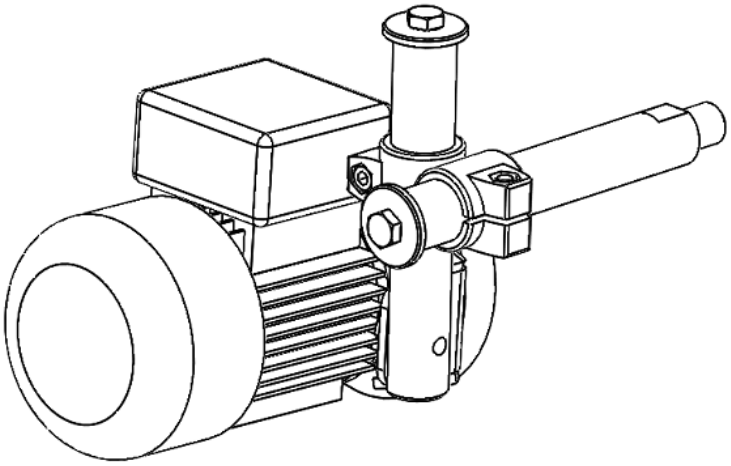
Top glue scrapper RR-8		
#	**Description**	**Reference**
2	Bearing KH12PP	102000028
3	Unit ON OFF lever	401000161
4	Blade holder	403000136
5	Support plate	403000138
6	Vertical block	403000140
7	Eccentric bearing. 6002	404000075
8	Sliding guide Ina W12h6 L:125	404000076
9	Sliding guide Lateral L:100	404000079
10	Tension spring RR8	405000080
11	Main support plate	409000026
12	Main body	409000028
13	Top plate	409000029
14	RR-8 top scrapper blade	409000033
15	Bearing 6002-2ZR	5000057
16	Bearing EGB1015-e40	5000058
17	Allen bolt DIN 912 M6 x 16	6310601601
18	Allen bolt DIN 912 M6 x 20	6310602001
19	Allen bolt DIN 912 M6 x 25	6310602501
20	Allen bolt DIN 912 M6 x 55	6310605501
21	Bolt DIN7991, M5 X 8	6320500801
22	Grub screw DIN913 M5 X 20	6330502001
23	Hex bolt DIN934, M5	6410500001
24	Dented washer DIN6798 M6	6660600001
25	Washer DIN 125 - A 6.4	
26	Grub screw DIN 525 - M6 x 130	
27	Hex bolt DIN 912 - M6x20	
28	Hex bolt DIN 912 - M6x35	
29	Hex bolt ISO 4034 - M6	
30	Hex bolt ISO 7040-M6	
31	Hex bolt ISO 7040-M6	

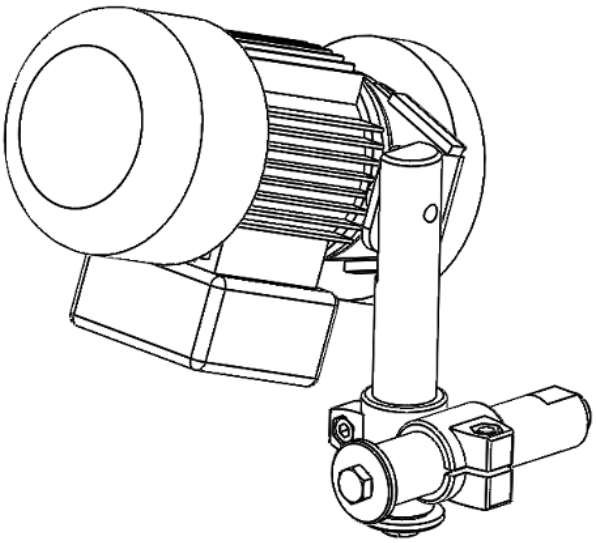
5.2 Bottom glue scrapper



Bottom glue scrapper RR-8		
#	**Description**	**Reference**
2	Bearing lineal KH12PP	102000028
3	Linear guide Ina w12 h6 L:125	102000029
4	Unit ON OFF lever	401000161
5	Blade holder	403000136
6	Main holding block	403000137
7	Support plate	403000138
8	Vertical body	403000140
9	Eccentric bearing rod. 6002	404000075
10	Horizontal spacer guide	404000077
11	Spring RR-8	405000081
12	Main supporting plate	409000026
13	Top plate	409000029
14	RR-8 bottom scrapper blade	409000030
15	Bearing 6002-2ZR	5000057
16	Sliding bearing EGB1015-e40	5000058
17	Allen bolt DIN 912 M6 x 20	6310602001
18	Allen bolt DIN 912 M6 x 25	6310602501
19	Allen bol DIN 912 M6 x 60	6310606001
20	Allen bolt DIN 912 M6 x 60	6310606001
21	Bolt DIN7991, M4 X 12	6320401202
22	Grub screw DIN913 M5 X 20	6330502001
23	Hex nut DIN934, M5	6410500001
24	Hex nut DIN934, M6	6410600001
25	Self-locking nut DIN982, M6	6420600001
26	Washer DIN 125 M4	6610400001
27	Washer DIN 125 M6	6610600001
28	Dented washer DIN6798 M6	6660600001
29	Grub screw DIN 525 - M6 x 130	

MAKSIWA CBC.P
BUFFING UNIT PC-3



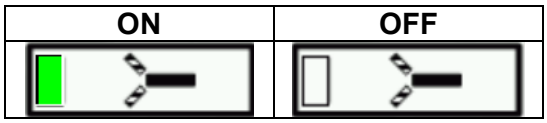


Unit: MAKSIWA CBC.P Buffing unit
Revision: 00 05/2023

1 DESCRIPTION AND AIM OF THE UNIT

The function of the group is to polish sharp edges and smooth the finish, also clean the remains of glue that have remained on the panel. It consists of two motors of 0.11 kW of power. It is possible to install a huge variety of polishing cloths.

2 SCREEN SELECTION AND UNIT ACTIVATION

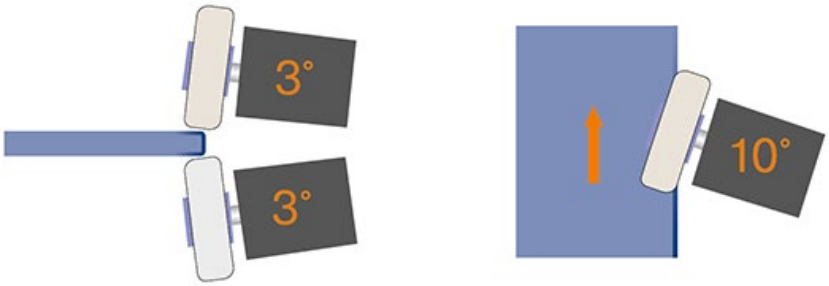


3 OPERATION AND ADJUSTMENT

3.1 Work description

- The group is in charge of cleaning, polishing and smoothing the work of the trimmers, radius scraper and glue scraper.
- In the case of 0.4mm edge, after machining the group with a trimmers or the glue scraper, the group smooths the sharp edge.
- In the case of working with the cleaning agent, helps to remove the remains of glue.

3.2 Unit work position



- Approximately 3º tilt vertically.
- Approximately 3º tilt horizontally.
- No oscillation
- Rotation in the direction of the panel.

3.3 Electric composition

This configuration detailed below might change. Please check the update electric diagram to confirm the correct electric components.

	Motor	Thermal relay	Inverter
Top motor	2M1	2F1	U2
Bottom motor	2M2	2F2	

3.4 Unit adjustment

Security warning

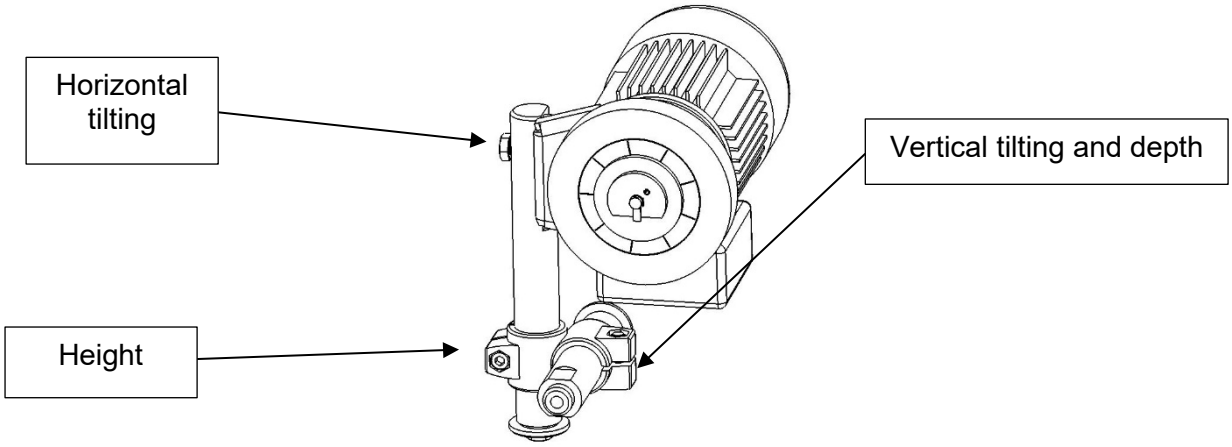
A trained technician with special tools adjusts this unit. For this reason, MAKSIWA does not recommend handling without the support of an authorized technician.

The premilling unit has cutting blades that can cause serious damage under improper use of the unit.

Do not adjust the unit while the machine is running to avoid enrollment with the chain. For proper handling, disconnection of the unit is essential.

Before making any adjustments, try to solve the problem with the appropriate preventive/corrective actions, and follow these steps detailed in the section on common errors and failures.

Move forward or backward, loosening the horizontal fixing nut, to move it vertically, loosen the vertical movement-fixing nut and manipulate the motor vertically to the necessary height. To rotate the motor position, loosen the rotation-locking nut (3).



4 MAINTENANCE

Before starting the Maintenance, turn off the machine (disconnect completely electrically) and disconnect compressed air.

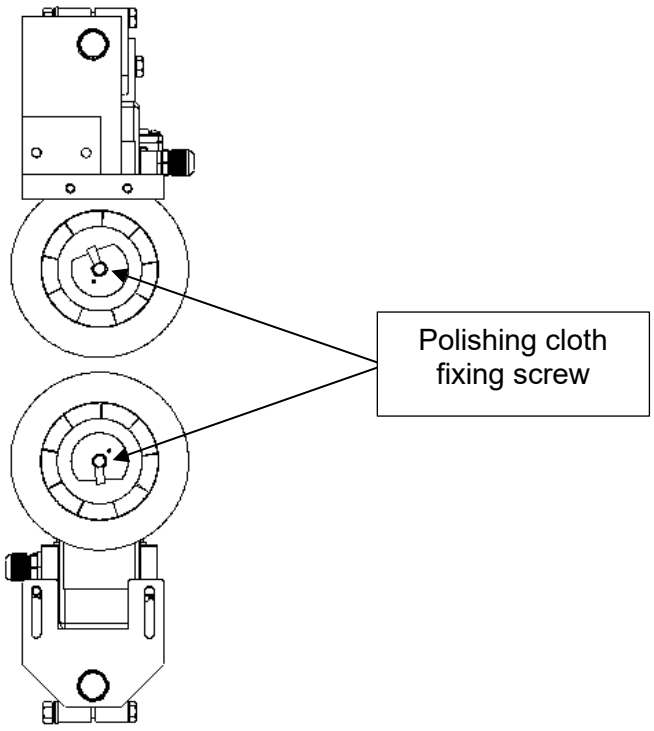
Only trained personnel can perform these operations.

General maintenance

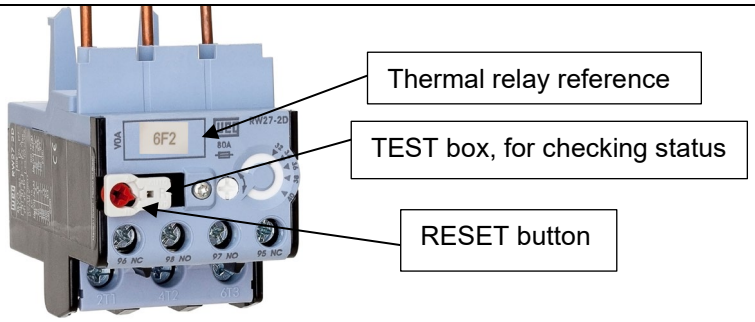
- Clean polishing cloths everyday.
- Clean (vacuum) everyday chips and strings of PVC and glue from trimmers and scrappers.
- Check manually everyday if the motor is moving freely.

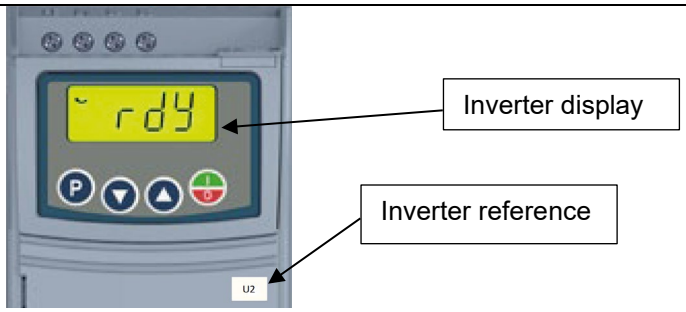
4.1 Change polishing clothes

To replace the polishing cloth, loosen the fixing screw of the polishing cloth, leaving it free to be replaced. To block the rotation of the motor, insert the key from behind and at the same time loosen the screw.



5 ALARMS

<table>
<tr><th>Alarm</th><th>Possible cause</th><th>Solution</th></tr>
<tr><td>Thermic relay</td><td>Thermal relay alarm due to a motor malfunction</td><td> 

Locate the thermal relays in the electrical panel. Check that the TEST box is yellow (usually green). Press the RESET button to clear the fault and you can reset the alarm. Contact the technical service to solve the fault. Meanwhile, work without the unit causing the failure.
2F1: Top buffing unit
2F2: Bottom buffing unit</td></tr>
<tr><td rowspan="4">Inverter</td><td>Low input voltage</td><td rowspan="4"> 

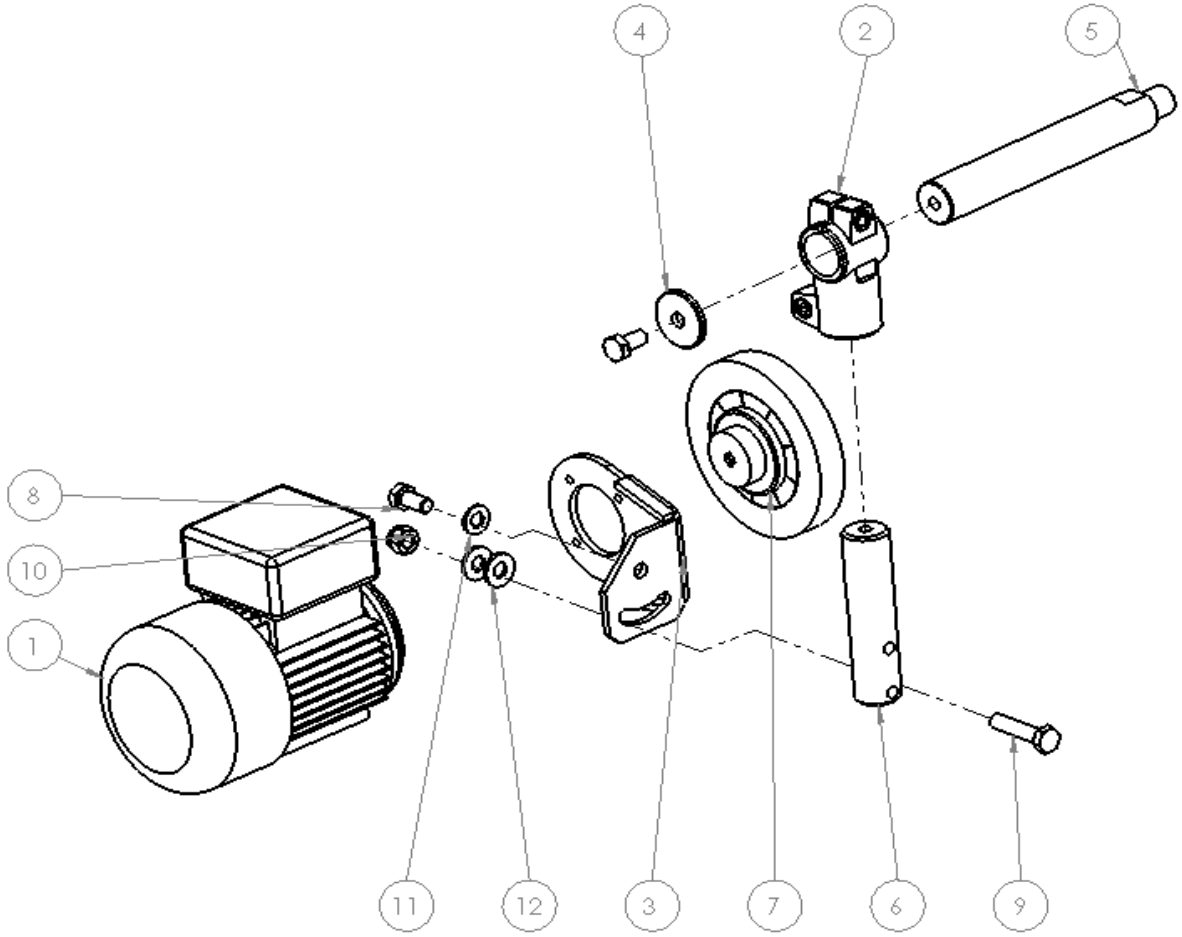
Locate the inverter causing the fault; you can reset it by turning off the machine for 60 seconds and turning on again. If the fault persists, contact the technical service indicating the inverter and the fault that appears on the display.
U2: Drag chain and buffing unit inverter</td></tr>
<tr><td>Motor failure</td></tr>
<tr><td>Inverter fault</td></tr>
<tr><td>Worn tools</td></tr>
</table>

6 TROUBLESHOOTING

Fault	Possible cause	Solutions
Motor blocked /thermal relay alarm	Glue/edge trings from glue scrapper	Remove the excess of PVC/glue from motor.
Finish not clean	Dirty clothes	Change polishing clothes
Watermarks on panel	Too much pressure on panel	Reduce unit height to reduce pressure on panel.

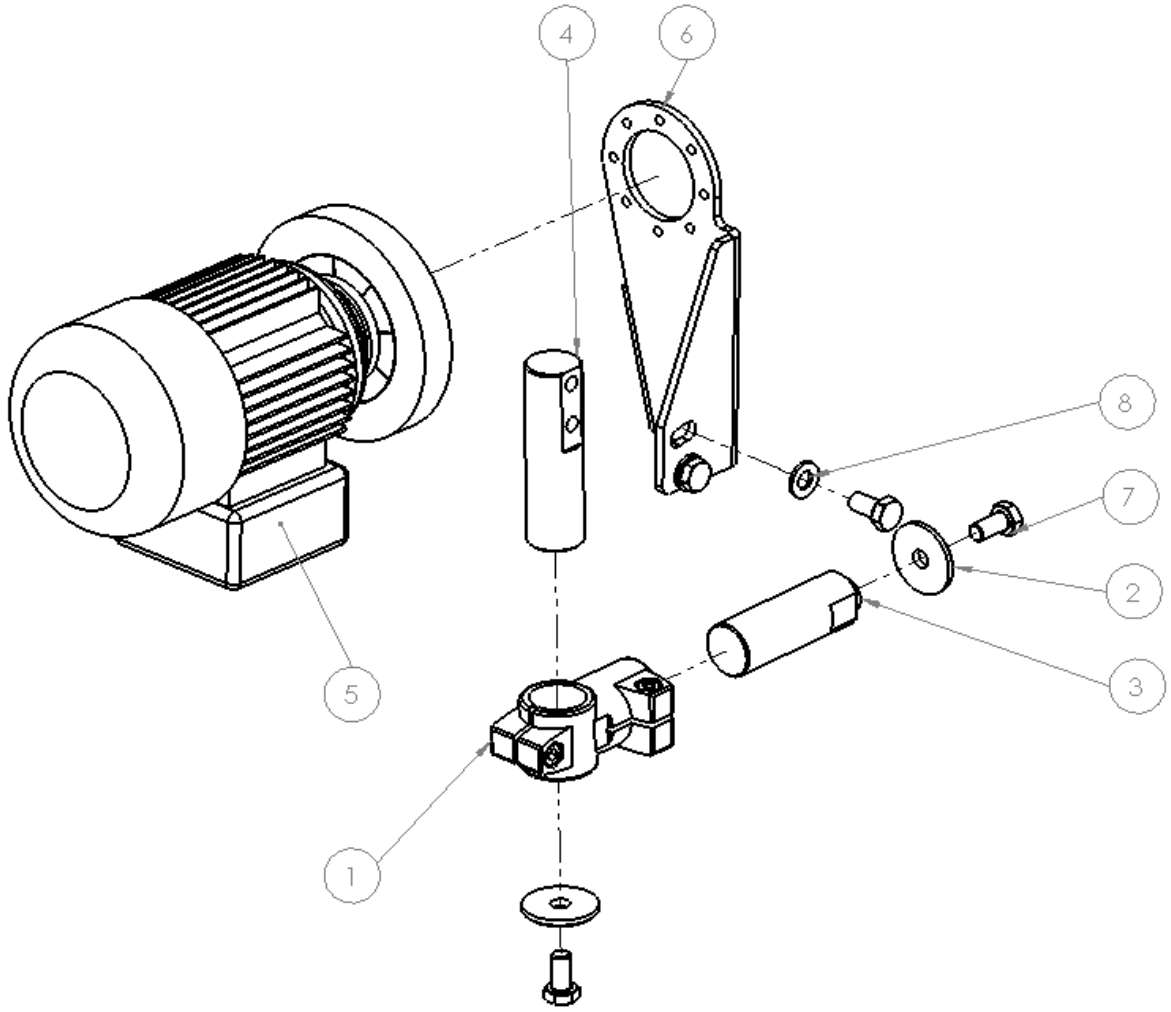
7 UNIT COMPOSITION

7.1 Top buffing unit



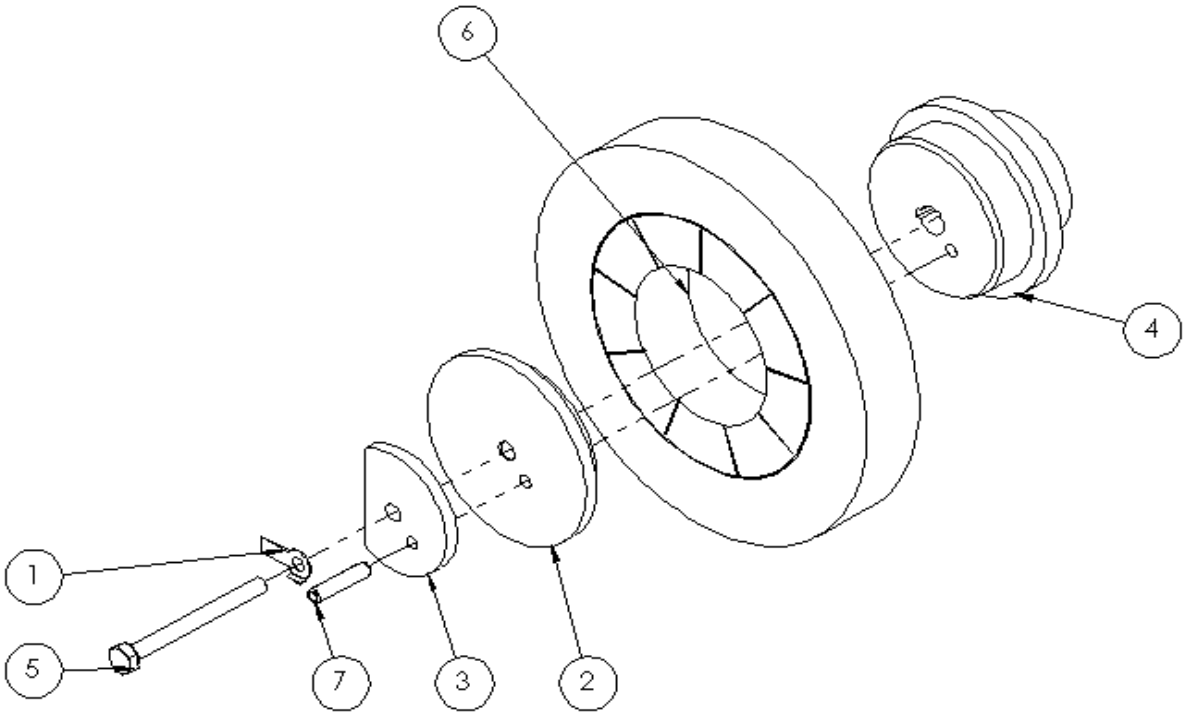
Top buffing unit 1300033			
#	**Qty.**	**Description**	**Reference**
1	1	Transtecno TS5624B14 - 0.09 kW - 1320rpm	100000013
2	1	T-angle connector clamp GN 192-B30-B30-40-2-SW	102000568
3	1	Motor support	401004789
4	1	Frontal adjustment stop washer	404000377
5	1	Top fix support	404001372
6	1	Pivoting claml (top)	404001697
7	1	Buffing disk assembly	5002132
8	2	Hex bolt DIN933, M10 X 20	6361002001
9	1	Hex bolt DIN933, M10 X 45	6361004501
10	1	Self-locking nut DIN982, M10	6421000001
11	1	Washer DIN 125 M10	6611000001
12	2	Conic washer DIN 6796-10	6691000001

7.2 Bottom buffing unit



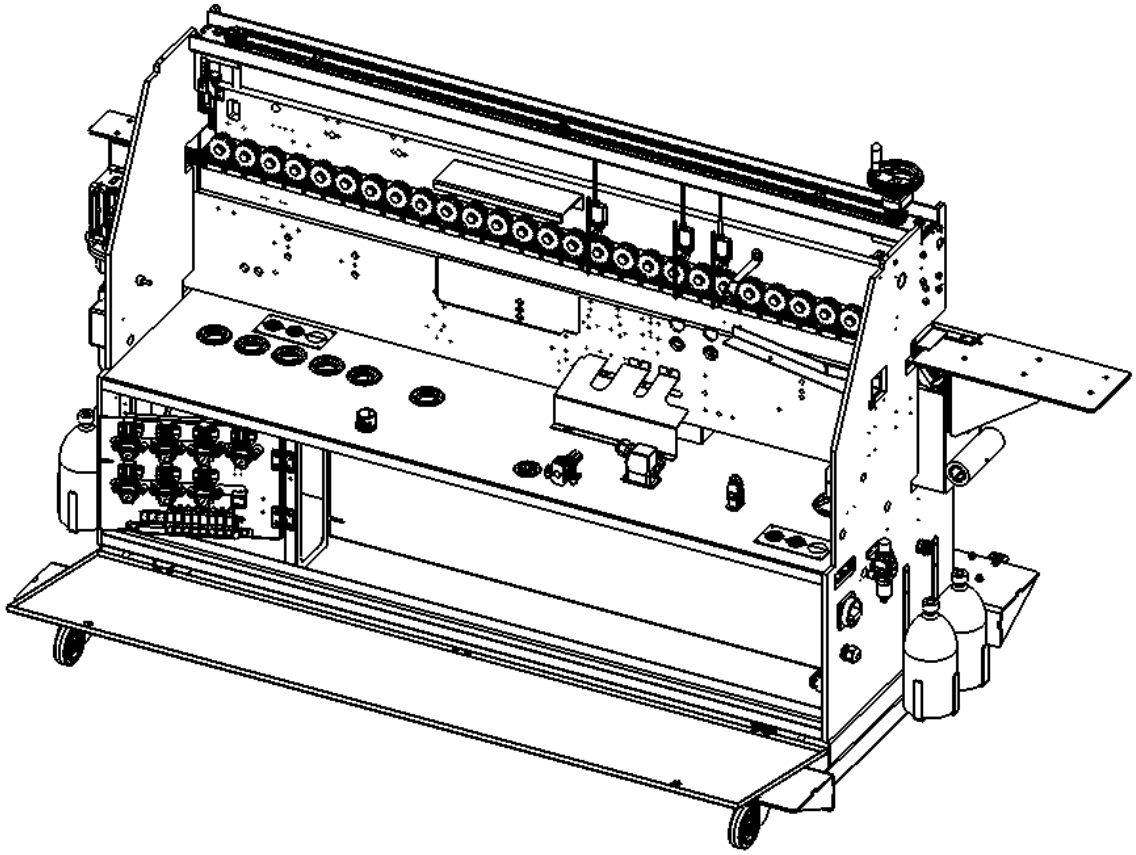
Bottom buffing unit 1300036			
#	**Qty.**	**Description**	**Reference**
1	1	T-angle connector clamp GN 192-B30-B30-40-2-SW	102000568
2	2	Frontal adjustment stop washer	404000377
3	1	Bottom fix suport	404001704
4	1	Vertical support	404001706
5	1	Motor assembly	5004777
6	1	Motor support	5004779
7	4	Hex bolt DIN933, M10 X 20	6361002001
8	2	Washer DIN 125 M10	6611000001

7.3 Buffing disk assembly



5002132 Conjunto Pulidor			
#	**Qty.**	**Description**	**Reference**
1	1	Fixing washer D463 M4	102000176
2	1	Bolt fixing plate	404000754
3	1	Out gasket	404000971
4	1	Disk positioner	404000997
5	1	Hex bolt DIN933, M4 X50	6360405001
6	1	Buffing disk	9331251911
7	1	Elastic pin DIN 1481 D4 x 20	

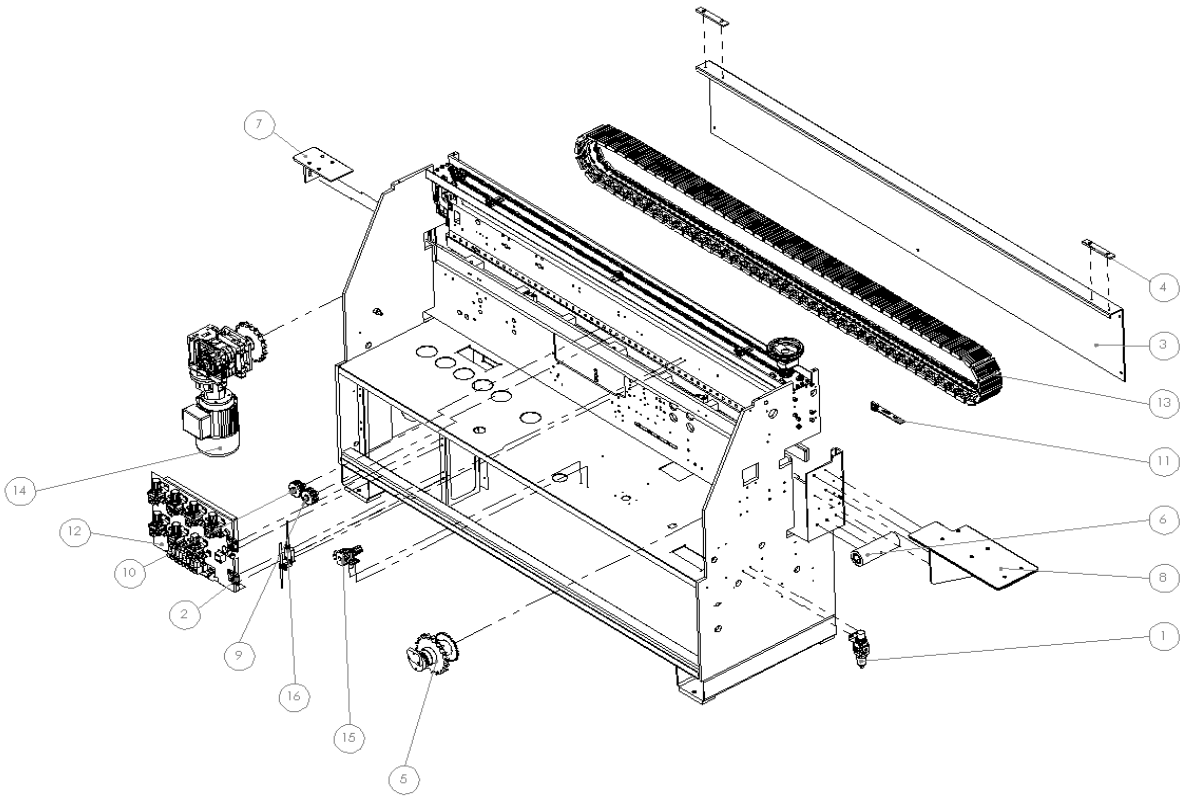
MAKSIWA CBC.P
BENCH FRAME



Unit: MAKSIWA CBC.P Benchframe
Revision: 00 05/2023

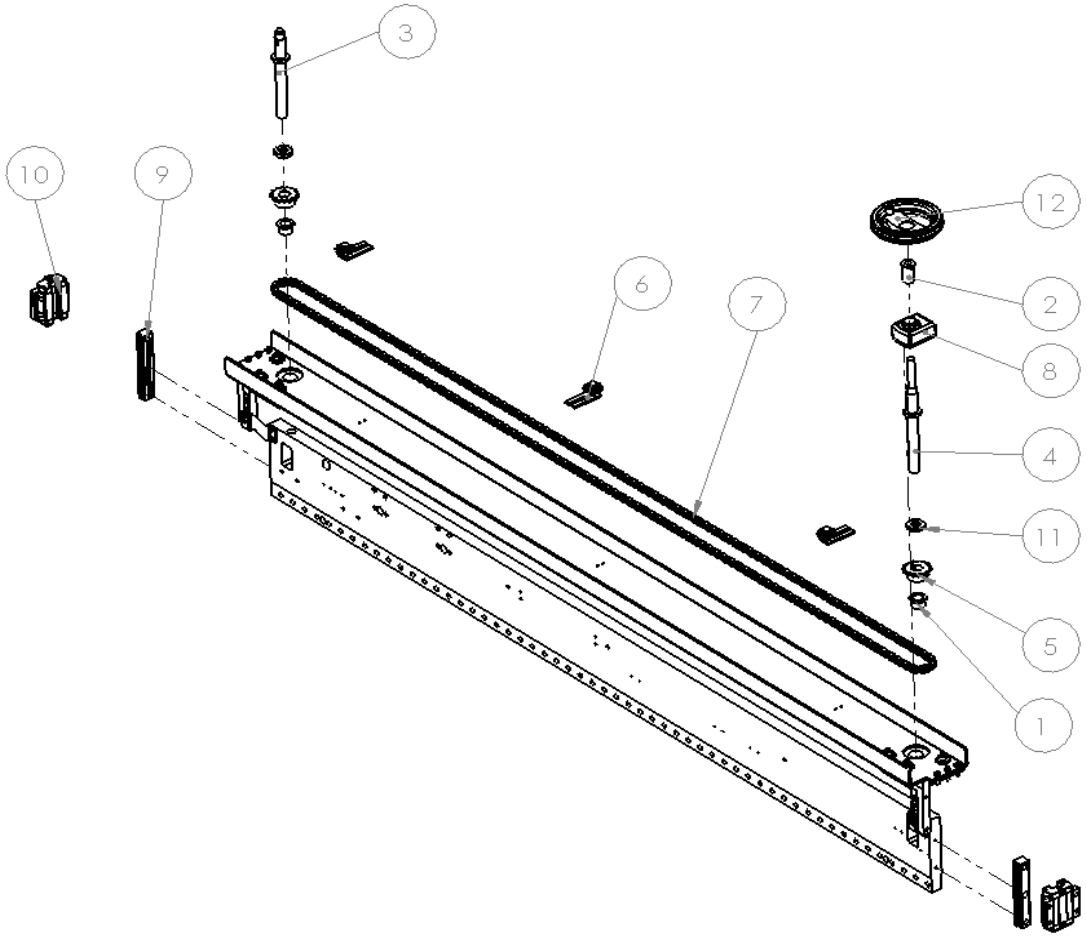
1. BENCHFRAME COMPOSITION

1.1 CBC.P Main



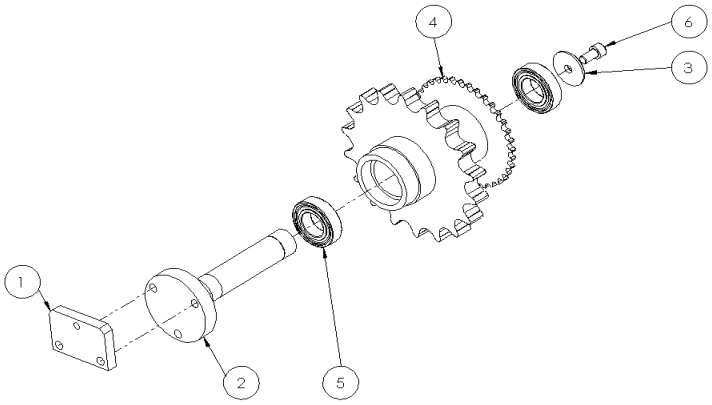
Maksiwa CBC.P Benchframe 0100309			
#	**Qty.**	**Description**	**Reference**
1	1	AW20-F02B-R-B(0)	101000052
2	2	CFM.50 SH-6-MD	102000682
3	1	Guide cover	401006040
4	2	Support	409000442
5	1	Dragchain sprocket assembly	5000442
6	1	Extensible apron support	5000443
7	1	HPL output	403001295
8	1	HPL Input	403002018
9	1	Pressure beam wheel assembly	5003400
10	1	Pressure beam wheel assembly for protection cover	5003564
11	1	Tensioner assembly	5004124
12	1	Pneumatic plate	5005140
13	1	Drag chain assembly	5005144
14	1	Draghcian motor	5005172
15	1	Pressure regulator EIR2000	5005251
16	1	Schmersal limit switch	

1.2 Pressure beam



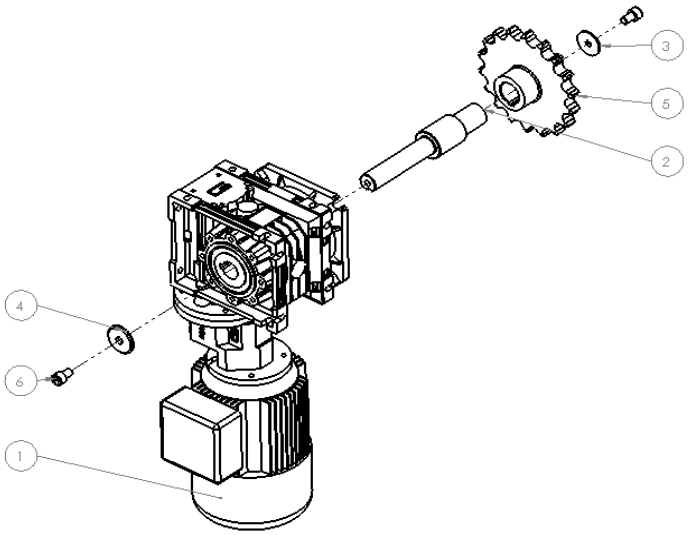
Maksiwa CBC.P Pressure beam 5005138			
#	**Qty.**	**Description**	**Reference**
1	2	Gasket 18 - 24 - 18	102000314
2	1	Gasket squillo siko pisador	404001492
3	1	Pressure beam adjustment shaft output	404001555
4	1	Pressure beam adjustment shaft input	404001556
5	2	Sprocket 3/8" Z15	404001557
6	3	Tensioner assembly	5003745
7	2	3/8 368 steps	5004116
8	1	Positioner DA09	9350921051
9	2	Guide Hiwin EGR25R140C	
10	2	Guide Hiwin EGW25CAZ0C ZZ	
11	2	Blocking nut GN1804-2 M16x1,5	
12	1	Spoked handwheels VRTP.125+I A-12	

1.3 Dragchain sprocket



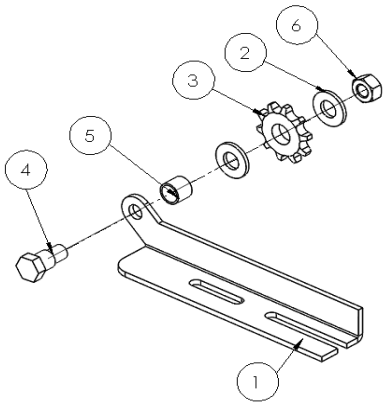
Dragchain guided sprocket 5000442			
#	**Qty.**	**Description**	**Reference**
1	1	Adjustment plate	403000045
2	1	Guide shaft for sprocket	404000014
3	1	Washer Ø35 x Ø8.5 x 4	404000017
4	1	Guide sprocket	404000398
5	2	Bearing 6005-2RS	6116005301
6	1	Allen bolt DIN 912 M8 x 16 (Thread 16mm)	6310801601
7	1	Allen bolt DIN 912 M8 x 25 (Thread 25mm)	6310802501

1.4 Dragchain motor



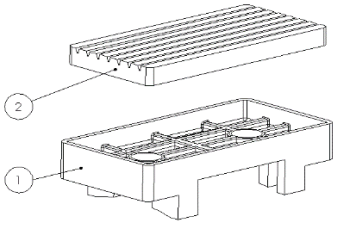
5005172 Motorreductor arrastre			
#	**Qty.**	**Description**	**Reference**
1	1	Dragchain motor CMP071/063 TS71 3 4 B14 50Hz	102000654
2	1	Gearbox shaft	404000016
3	1	Washer Ø35 x Ø8.5 x 4	404000017
4	1	Washer Ø40x4xØ10.5	404000253
5	1	Sprocket Z18 P 1"	404000397
6	2	Allen bolt DIN 912 M10 x 16 (Thread 16mm)	6311001601

1.5 Tensioner assembly (drag chain)



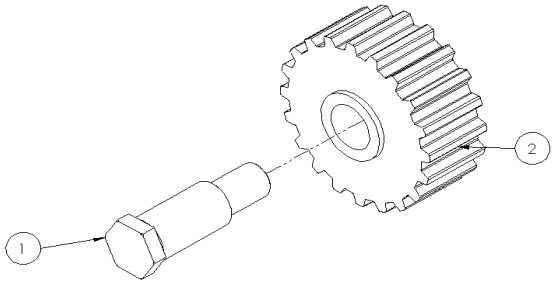
Tensioner assembly 5000444			
#	Qty.	Description	Reference
1	1	Gearbox chain tensioner	401001007
2	2	Copper washer	404000021
3	1	Tensioner sprocket	404000386
4	1	Sprocket shaft	404000387
5	1	Gasket 1010DU	6240101001
6	1	Hex nut DIN934, M8	6410800001

1.6 Step pad assembly



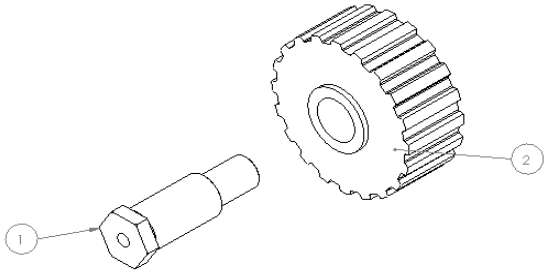
Drag chain step pads 300000001			
#	Qty.	Description	Reference
1	1	Step pad box	1000088
2	1	Rubber cover	1000089

1.7 Pressure beam wheel



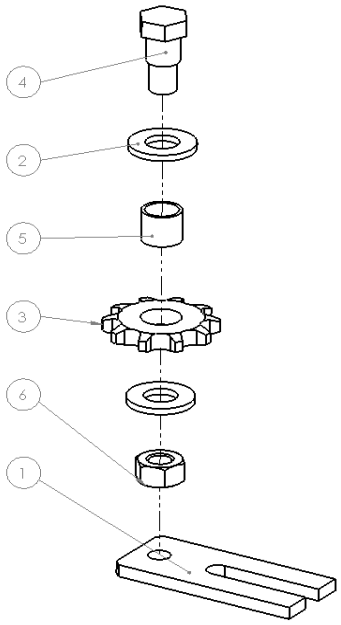
CONJUNTO RUEDA 5003400			
#	Qty.	Description	Reference
1	1	Whel shaft M12	404001360
2	1	Wheel	8880060601

1.1 Pressure beam wheel threaded (for protection cover)



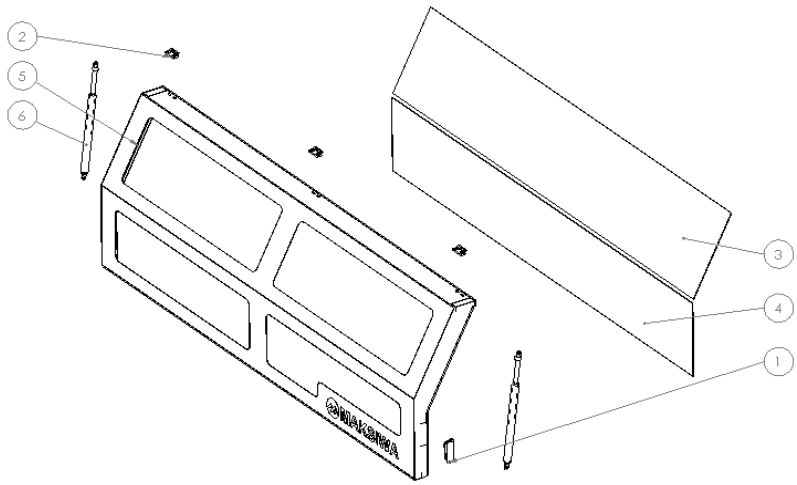
CONJUNTO RUEDA 5003400			
#	Qty.	Description	Reference
1	1	Wheel shaft M12 M6	404001360
2	1	Wheel	8880060601

1.1 Tensioner assembly (pressure beam)



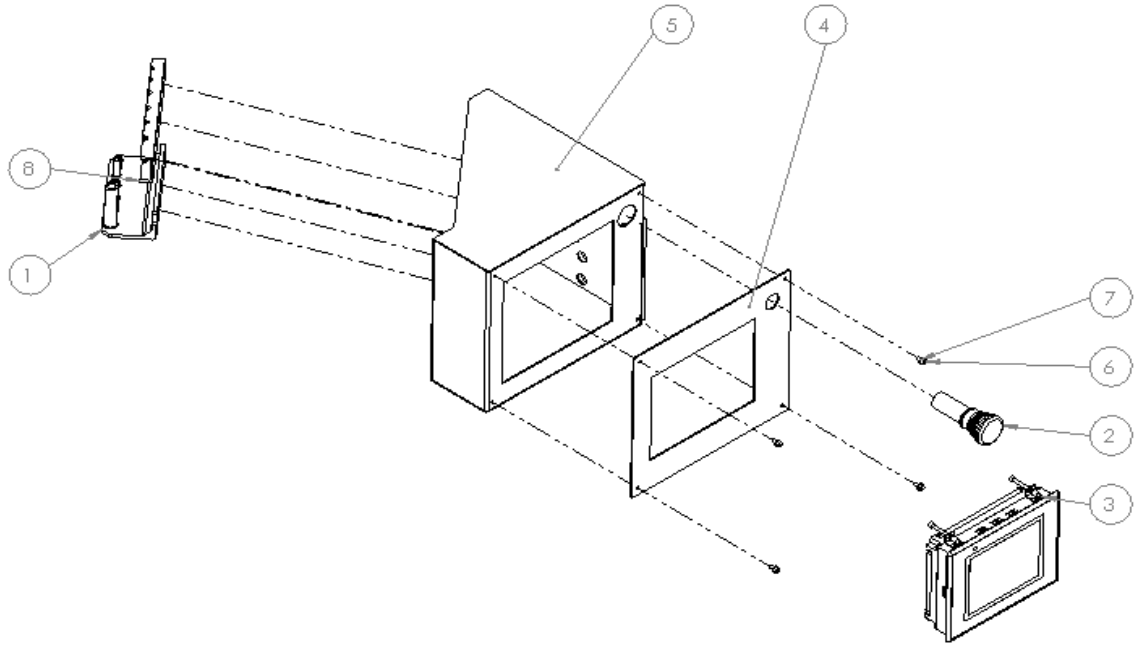
Pressure beam tensioner 5000444			
#	**Qty.**	**Description**	**Reference**
1	1	Pressure beam tensioner	401004798
2	2	Washer copper	404000021
3	1	Tensioner sprocket	404000386
4	1	Sprocket shaft	404000387
5	1	Gasket 1010DU	6240101001
6	1	Hex nut DIN934, M8	6410800001

1.2 Cabin door



Cabin door 1900290			
#	**Qty.**	**Description**	**Reference**
1	1	Safety door magnetic	100000014
2	3	CFM.50 SH-6-MD	102000682
3	1	methacrylate cabin	401006083
4	1	methacrylate cabin	401006092
5	1	Door	5005254
6	2	Gas spring 08 585 350N	9200745001

1.3 Screen assembly



Screen assembly 5005183			
#	**Qty.**	**Description**	**Reference**
1	1	T-handle Hex Key Support	102000656
2	1	Emergency stop button	3621101101
3	1	Screen 5/6" OMRON	3995000321
4	1	Screen fitting	401006086
5	1	Screen holder assembly	5005184
6	4	Allen bolt DIN 912 M4 x 8 (Thread 8mm)	6310400801
7	4	Washer DIN 125 M4	6610400001
8	1	Allen Keys Holder Set01	