

CBC.TPM

Automatic Edgebander

INSTRUCTION MANUAL

Model: CBC.TPM Series Version: 00 09/2023



Attention: Read this manual before using the machine.



Greetings,

Congratulations, you just purchased the CBC.TPM – Maksiwa Automatic Edgebander, which was developed with the Maksiwa's highest standards of technology and quality. Your Edgebender allows you to have the highest productivity in woodworking. Besides a great finish, the CBC.TPM ensures that your work pieces come always precise. It should be noted that to use this machine with maximum efficiency, you should read and understand the instructions in this manual. Visit our website to know about our launches and other product lines: www.maksiwa.com

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1 SAFETY REGULATIONS

Read all instructions in this manual. Failure to follow all instructions listed below may result in personal injury and equipment damage. WARNING: When using electrical equipment, always follow the safety precautions to reduce risk of fire, electric shock and personal injury. The manufacturer declares that they are not liable for damages to person(s) or object(s) which may be caused by failure to comply with the safety regulations.

1.1 Workspace

- Keep the work surface clean. Disorganized surfaces and areas are an invitation, for accidents in the work place.
- Do not use the saw in hazardous environments. Do not use the machine in places that are damp, wet, exposed to rain, or in the presence of flammable liquids or gases. Keep your work area well lit.
- Visitors must be kept at a safe distance from the workspace. Take the appropriate precaution by using padlocks or following the appropriate lock-out-tag procedures.

1.2 Electrical Safety

- Ensure that your power supply is in accordance with the rating of the machine. A 10% increase or decrease in voltage will cause power loss and overheating. All Maksiwa equipment is factory tested. If this Machine does not operate properly, first check the power supply.
- CAUTION: WHEN SERVICING OR REPAIRING THE MACHINE, ONLY USE OEM PARTS.
- The plug used for the machine must be rated for the correct voltage/Amps and compatible with the electrical outlet. Never modify the plug.
- Do not use any adapter plugs. Using the correct plug (without modifications) with the correct outlet will reduce the risk of electrical shock.

1.3 Personal Safety

• Stay alert, pay attention at what you are doing and use common sense when operating the machine. Do not use the machine when you are tired or under the influence of drugs, alcohol, or medication. If distracted, while operating the machine, it may in result in serious personal injury.



ALWAYS USE PROPER PROTECTION WHEN OPERATING THIS EQUIPMENT.

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- Always wear safety glasses, face protection, safety anti-slip shoes, and ear protection to reduce personal injury.
- Always wear safety glasses, face protection, safety anti-slip shoes, and ear protection to reduce personal injury.
- Do not wear loose clothing, gloves, chains, rings, bracelets or other accessories. It is also recommended to use hair protection.
- Do not over stretch to reach. Keep balanced and feet firmly planted at all times.
- Disconnect the machine from the power supply before servicing or performing repairs.
- Reduce the risk of unintended starts by making sure that the main power switch is turned off before plugging the cord into the outlet.
- Use recommended accessories. Refer to the instruction manual to check the recommended accessories. Improper use of the accessories may cause personal injury.
- Never stand on the machine. serious accidents can occur if the machine is tilted.
- Your safety is your responsibility. Serious risks are involved when working with machinery.
- Always focus on the job, do not operate machine when tired.
- Never use in dangerous environment such as in damp, wet location, or expose under the rain.
- Never leave machine running without attention.
- Never open the protection cover while the machine is still running.
- The machine operator must not be younger than the minimum age established by legislation and must also be fully qualified to work with this machine.
- Many accidents are caused by appropriate clothing and personal objects (i.e. bracelets, watches, necklaces etc.). Make sure that buttons are securely fastened.
- Do not wear ties and tie back long hair.
- Wear approved footwear and safety glasses for your eyes at all time.
- The machine and working area around it must always be kept clean, keep well lighted and ventilation.
- The use of safety devices is obligatory and must never be removed, modified or damaged. The manufacturer declines all responsibility if safety devices are modified in any way.
- In exceptional working conditions the safety devices provided with the machine may be insufficient. It is your responsibility to make and fit the necessary additional safety devices.
- All work on electrical components must be carried out by a qualified electrician.
- All maintenance work must be carried out with the machine switched off, padlocked, the compressed air tube disconnected from the fast Snap-on fitting.
- Use only cutting tools in good condition. In any case avoid using a hammer. Screws, nuts and bolts must be tightened with a proportional strength, neither too slack nor too tight. Use only the tools given just as they are without altering their strength.



1.4 Machine Safety

- Turn off the machine, unplug the power cord, and wait until the working process stops, before performing any maintenance or adjustments to the machine.
- Do not overload the Machine, it will perform the job better and safer if used as indicated.
- Do not force the machine by performing a job for which it was not intended for.
- Inspect the machine. Keep it in a clean and neat condition for optimal performance.
- Follow the instructions on lubricating and changing accessories.
- Check the alignment of moving parts and for any damaged parts, before continuing to use the machine. A part that is damaged should be carefully examined to determine, if it is functioning properly and if it will affect the machines.
- Do not use the machine if any the switches do not work properly.
- Never leave the machine running unattended.
- Turn off the main power switch when not in use to prevent any accidents.
- Protect the power supply circuit with at least a fuse or circuit breaker. Do not attempt to operate the machine at any voltage other than the designated voltage.
- Do not use abrasives. Excessive heat generated by abrasive particles will damage the components.
- Do not move the workpiece or open the cover until the initiated job has stopped.
- ATTENTION: Any powder created by sanding, cutting, grinding, drilling, and other activities contains chemicals that can cause cancer, birth and other reproductive harm. Some examples of these products are: in lead; crystal silica brick, cement and other masonry products; and arsenic and chromium from chemically treated wood.
- CAUTION: Do not connect the machine to the power outlet until this manual is read and understood Never perform operations hands-free. Think, "How can I avoid accidents?".
- Always wear safety goggles. Turn off the power and wait for the machine to stop and cool before starting to service or making adjustments.

2 INTRODUCTION

2.1 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 troubleshooting. 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.



2.2 Presentation

These innovative machines represent an evolution from the renowned titanium series, transitioning into a more compact form factor. The CBC.TPM has been meticulously designed to cater to the requirements of small-scale production while seamlessly blending versatility and innovative technology to ensure a flawless edge-to-panel bonding process, resulting in impeccable finishes of the utmost quality.

To achieve this exceptional performance, the CBC.TPM is equipped with distinct functional groups, each dedicated to executing specific operations within the process, ensuring precision and efficiency at every step.

2.3 Reference regulations

The CBC.TPM Edgebander is 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

2.4 General warnings

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

The 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 USA Regulations and Harmonized Regulations detailed in section 1.3 of this manual. The manufacturer denies 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 considered 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.



3 TECHNICAL SPECIFICATIONS

3.1 Power requirements

| MODEL | VOLTAOE | DUAGE | Total | Total |
|---------|---------|--------------|-------|-------|
| MODEL | VOLIAGE | PHASE | kW | Amps |
| CBC.TPM | 220V | Single phase | 5.2 | 23.9 |

3.2 Technical details

| | CBC.TPM |
|---------------------------------|---------|
| PANNEL THICKNESS (MIN/MAX, mm) | 10 – 40 |
| PANEL WIDTH (mm) | 120 |
| MINUMUM PANEL LENGTH | 200 |
| TAPE THICKNESS (MIN/MAX, mm) | 0.4 – 2 |
| DRAG CHAIN SPEED (m/min) | 6.5 |
| WORKING AIR PRESSURE (MPa) | 0.6 |
| DUST COLLECTOR POWER (m3/h) | 1,700 |
| MAXIMUM AIR CONSUMPTION (I/min) | 200 |
| NET WEIGHT (Kg) | 500 |



USER MANUAL

3.3 Dimensions (Machine Layout)







3.4 Machine Configuration



| Working units list CBC.TPM - 10170207 | | | | |
|---------------------------------------|------|---------------------------------------|-----------|--|
| # | Qty. | Unit model | Reference | |
| 1 | 1 | CBC.TPM MAIN FRAME | 100332 | |
| 2 | 1 | Cabin door | 1900300 | |
| 3 | 2 | gas spring 08 430 350 (Carrera 170) | 5005303 | |
| 4 | 1 | Pressure rollers | 700130 | |
| 5 | 1 | Tape Guide | 500177 | |
| 6 | 1 | Coil Tray | 1800050 | |
| 7 | 1 | Electric/pneumatic panel distribution | 5005442 | |
| 8 | 1 | GLUE POT | 600105 | |
| 9 | 1 | Lower buffing unit | 1300039 | |
| 10 | 1 | Fixed apron | 2000270 | |
| 11 | 1 | Adjustable infeed fence | 200114 | |
| 12 | 1 | PRE-MILLING UNIT PF-1 | 400068 | |
| 13 | 1 | Glue scraper RR1 up | 1200032 | |
| 14 | 1 | Glue scraper RR1 down | 1200033 | |
| 15 | 1 | END/FLUSH TRIMMING UNIT T-4X | 800076 | |
| 16 | 1 | 5.2" screen assembly | 5005584 | |
| 17 | 1 | Upper buffer unit | 1100136 | |
| 18 | 1 | Handrail guide regulation X-4T | 1100137 | |



4 INSTALLATION AND START UP

4.1 Transport

- Use adequate machinery for transport.
- Lift and transport the machine considering 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 to prevent eventual dangers provoked by unforeseen movements, which could cause damage to people or objects.



4.1.1 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 various parts of the machine.
- Perform the final leveling test by securing the panel in place and positioning the level on top of it.





4.2 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 are no cables/hoses in the path of the machine workers that could cause any accident.
- Pay utmost attention to avoid objects that obstruct work in working zone.



4.3 Units release, Fixed 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 mechanical movement of the unit, ensuring that there is no damage after transport.

Proceed to install extensible aprons and coil tray. Refer to the manual of each unit for more information.



4.4 Electrical installation

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

- Installation must be in accordance with USA 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.
- For CBC.TPM use a cable of 3 x 10 AWG (1 phase 120V + 1 phase 120V + ground = phase to phase 220V)
- Pass the cable gland to the interior of electric cabinet and connect it accordingly. Ensure that the cable will not interfere with the working zone causing any accident.



IMPORTANT: Before making the connection of the machine, check that the voltage among terminals **L0**, **N0** is **220V**, and Depending on your region, your electrical panel may have a high leg on one of the phases. Avoid using it, as doing so can cause irreparable damage to the machine's electronic converters and <u>VOID THE WARRANTY</u>.



4.5 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 200 liters / minute. (7 SCFM @ 90 PSI) 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 mechanical damage, and consequently **LOSS OF WARRANTY**.

4.6 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 check the correct functioning of all according to your work.



NEVER 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.



5 MAINTENANCE AND CLEANING

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

5.1 Daily preventive maintenance

Daily, before starting 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:

- 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's 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.

5.2 Weekly Maintenance

Perform the following operations once a week:

- Conduct 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 the status of tools (pre-milling, End/Flush trimmer cutters).
- Raise the pressure beam, clean the wheels, and drag chain pads with a specifying cleaning product.
- Lubricate the chain slightly with synthetic fluid grease.
- Draining the filter group to remove water and impurities.



6 SAFETY

6.1 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. Carefully read 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.
- Conduct 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 spark could cause explosion or fire.
- The operator must always keep in mind the risks before approaching the most dangerous areas with his hands.
- Never remove the protections from the glue pot since they avoid any 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.

6.2 Personal Protection Equipment (PPE)

The following PPE 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 wear either tie, bracelets, rings, etc.



6.3 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 | 50° C | | |
| STORAGE TEMEPRATURE | - 20° C | 70° 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 | | |

6.4 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 near the control panel. It has top priority over any other signal / status of the machine. Afterward, reset the machine as follows:

- Ensure that the hazardous situation has been resolved and that all operators are in optimal condition and in their designated safe areas before resuming work.
- Reset the emergency button by rotating it until it returns to its default 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



7 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 oper- ating manual"). Also, confirm all the exterior conditions (electricity, compressed air). | | | |
| Ohinning og hoond | The occurrence of chips may be due to the use of inadequate panel, which may even have nails inserted (for example, chipboard). | | | |
| Chipping on board | Check the condition of cutters to verify that there are no broken blades. Proceed according to annex "Pre-milling unit Operating Manual" to conduct this operation. | | | |
| | First, check that air pressure at machine entrance is correct (0.6 MPa). | | | |
| Irregular edge | Disconnect the machine electric and pneumatically and observe closely feeding tray and observe if the feeding system is working as it should. Check annex "Feeding user manual". | | | |
| feeding | 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). | | | |
| | First, carefully read the annex "Trimmer Operating Manual" and check that all pneumatic pres- sures are correct. | | | |
| Board moves at end trim | Disconnect air pressure supply from the machine and manually check that the group performs all its movements smoothly. | | | |
| | Clean the wheels and drag chain steps with a specific cleaning product. | | | |
| Less radius / | First, carefully read the annex "Trimmer operating manual" and check that all pneumatic pres- sures are correct. | | | |
| milling at trimmers | Check unit tracing: when feeding a panel, the unit must trace 1mm frontally and vertically. | | | |
| | 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 the wheels and drag chain steps with a specific cleaning product. | | | |
| Board unalignment | In small pieces, it is possible to tighten the pressure beam 0.5 mm more than the panel measure- ment. 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 to process high edge thicknesses and is not restored when the edge is changed again, causing vibrations. | | | |
| | First, carefully read the annex "Gluepot user manual". | | | |
| | Check gluepot quantity and status. | | | |
| Irregular gluing | 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 mainte- nance, if necessary. | | | |
| | Check that the board cutting is 90 degrees. | | | |



USER INTERFACE

Model: CBC.TPM Series HMI NB3.5Q Series Version: 00 09/2023



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1 INTRODUCTION

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

Through the programmable screen, you will have a detail Access to the function of all operative groups.

2 USING TOUCH SCREEN

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.



From the MAIN menu, you can access the following functions:

- MAIN Main working menu.
- **TECHNICAL SERVICE** Allows advanced machine adjustment.
- **TEMPERATURE** Limited access to force waiting temperature (with password).
- FEEDING Access feeding system ON/OFF and feeding time.
- **ALARMS** Access to active alarms.
- **GROUPS PARAMETERS** Access to unit settings.
- LANGUAGE Allows changing HMI language.



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 groups.



3.1 Working units

| Image | Description |
|-------|------------------------------|
| | Pre-milling |
| | Gluepot |
| K | Guillotine |
| | Trimmer |
| | Buffing |
| K | Guillotine |
| | Units not present in machine |

3.2 Machine status notifications

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- **STANDBY** Gluepot not selected from screen.
- WAIT WORKING TEMPERATURE Gluepot heating to set temperature.
- WORKING TEMPERATURE OK Correct work temperature. The machine is ready to work.
- **PRODUCTION** Machine working.
- **TO WAITING TEMPERATURE** Gluepot is cooling to waiting temperature.
- **INITIALIZING UNITS** The machine takes 5 seconds to initialize all units after pressing "ON" button, meanwhile, it displays this message.
- **STOPPING UNITS** The machine takes 5 seconds to stop all units after pressing "OFF" button pressed, meanwhile, it displays this message.
- EMPTYING MACHINE After an alarm, the machine empties the panels into the machine.
- **WAITING EMPTYING MACHINE** When there is an alarm, and with a panel inside the machine, screen displays this message.

4 TEMPERATURE

Limited access to force glue with password.

5 TECHNICAL SERVICE

Advanced settings menu, only for qualified technicians.

6 ALARMS

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

6.1 Alarms list

| Alarm | Possible causes | Solutions |
|----------------|---|---|
| | Temperature sensor fault | Check the correct connection of the temperature Sensor. |
| TEMPERATURE | Solid state relay or PLC output fault | Possible electrical component failure. Contact the technical service. |
| EMERGENCY STOP | Emergency button pressed | Release the emergency stop button. |
| AIR PRESSURE | Low air pressure | Check that there is 0.6MPa (90PSI) in the general input. |



| | Gluepot heating | The gluepot has not yet reached the minimum working temperature. | |
|---------------------------|---|---|--|
| LOW TEMPERATURE | Damaged heating elements | If after a long time, the gluepot does not reach the correct temperature, it is possible that some resistances heating elements are damaged. | |
| SELECT MODEL | Fatal PLC error | Contact technical service to fix the error. | |
| TOO CLOSE PANELS ERROR | Too close distance feeding panels | Panels fed very closely. In this case, you must empty the machine (remove all the panels inside). | |
| CABINS OPEN | Cabins open | Check that the doors are closed and the door sensor is making proper contact. If the error persists, the failure may be due to a sensor malfunction. | |
| THERMAL RELAY ALARM | Overload in a motor | Motor reference Image: Constraint of the second s | |
| | Low input voltage | | |
| | Faulty motor | Inverter display | |
| INVERTER ERROR | Inverter damaged | Locate the drive that caused the fault, write down the reference number to report the fault to the authorized technical service, and press the RESET button to be able to reset the fault from the screen. | |



7 GROUP PARAMETERS

Only guillotine and feeding adjustment is possible without the authorization of an expert Maksiwa machinery technician.



MAKSIWA declines all responsibility associated with any alteration of the parameters of the different unit by unauthorized personnel.

7.1 Guillotine





7.2 Feeding



8 LANGUAGES

It is possible to change the display language. To do this, just click on the language you want to work in.



COIL HOLDER

Model: CBC.TPM Series Coil holder Series Version: 00 10/2023



Index

- 1. Unit Scope and Description
- 2. Adjustment
- 3. Unit Composition



1 UNIT SCOPE AND DESCRIPTION

The coil holder supports the coil / edge while working. This unit attached at the entrance of the machine. For secure shipping, we dissemble this unit; please assemble following the adjustment instructions.

2 ADJUSTMENT



Before starting the machine, check that the coil holder disc is at the same level as the feeding tray. In case it is not at the same level, we must regulate the height of the holder as follows:





3 UNIT COMPOSITION



| | 1800049 Coil Holder | | | | | |
|---|---------------------|---|------------|--|--|--|
| # | Qty. | Description | Reference | | | |
| 1 | 1 | Selfoil Type B Bushing 16-22-25,28-3 | 102000229 | | | |
| 2 | 1 | D590 Disk | 401006147 | | | |
| 3 | 1 | Coil tray shaft | 404001187 | | | |
| 4 | 1 | shaft | 407000346 | | | |
| 5 | 2 | Conveyor balls SPS 15 B | 5002820 | | | |
| 6 | 4 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | | |
| 7 | 3 | COUNTERSUNK SCREW DIN7991, M6 X12 THREAD:12mm | 6320601202 | | | |



SUPPORT APRON

Model: CBC.TPM Series Support Apron Series Version: 00 06/2023



Index

- 1. Unit Scope and Description
- 2. Adjustment
- 3. Unit Composition



1 UNIT SCOPE 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 ADJUSTMENT

Before starting work, 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, to adjust the apron extension, lose apron-fixing ratchet.





3 UNIT COMPOSITION



| | 2000270 Fix apron | | | | |
|--|-------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Apron rail | 5005421 | | |
| 2 | 2 | Apron side cover | 401006095 | | |
| 3 | 1 | Fixed input support | 401006286 | | |
| 4 | 1 | Fixed output support | 401006285 | | |
| 5 4 ALLEN SCREW DIN 912 M10 x 16 (16mm THREAD) | | 6311001601 | | | |
| 6 | 8 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |
| 7 | 3 | ALLEN SCREW DIN 912 M5 x 8 (8mm THREAD) | 6310500801 | | |
| 8 | 8 | DIN 125 M6 WASHER | 6610600001 | | |
| 9 | 1 | Apron tube | 405000717 | | |



INFEEDING FENCE

Model: CBC.TPM Series Infeeding Fence Series Version: 00 06/2023



Index

- 1. Unit Scope and Description
- 2. Maintenance
- 3. Unit Composition



1 UNIT SCOPE AND 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 CBC.TPM Series, with mobile infeeding, you can adjust the depth of the unit easily, in this way, the pre-milling 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 if 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 is out of parallelism with the drag chain.

Only a trained technician should adjust the infeeding fence.



3 UNIT COMPOSITION







| 0200113 Infeeding fence | | | | | |
|-------------------------|------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 2 | GUIDE BLOCK PROTECTION | 401000517 | | |
| 2 | 1 | Angle Support | 402000193 | | |
| 3 | 1 | Guide Block | 403000275 | | |
| 4 | 1 | Guide Block | 403000275 | | |
| 5 | 1 | Siko Support for Entrance Regulating Device | 403000281 | | |
| 6 | 1 | Entrance Regulating Device | 403002225 | | |
| 7 | 1 | Adjustment Base Plate | 403002226 | | |
| 8 | 1 | Handrail for Entrance Regulating Device | 403002914 | | |
| 9 | 2 | Guide Column | 404000180 | | |
| 10 | 2 | Stop Washer | 404000181 | | |
| 11 | 2 | Brass Washer Ø20 x Ø10 x 1.5 | 404000182 | | |
| 12 | 1 | Siko Shaft for Entrance Regulating Device | 404000183 | | |
| 13 | 1 | Siko Indicator Bushing | 404000184 | | |
| 14 | 4 | Linear Ball Bushing LBBR20 | 6172030011 | | |
| 15 | 8 | ALLEN SCREW DIN 912 M6 x 40 (40mm THREAD) | 6310604001 | | |
| 16 | 8 | ALLEN SCREW DIN 912 M8 x 20 (20mm THREAD) | 6310802001 | | |
| 17 | 2 | ALLEN SCREW DIN 912 M8 x 70 (70mm THREAD) | 6310807001 | | |
| 18 | 1 | PAN HEAD SET SCREW DIN 913 M5 x 10 | 6330501001 | | |
| 19 | 1 | PAN HEAD SET SCREW DIN 913 M6 x 6 | 6330600601 | | |
| 20 | 4 | WASHER DIN 125 M6 | 6610600001 | | |
| 21 | 8 | WASHER DIN 125 M8 | 6610800001 | | |
| 22 | 1 | Handwheel knob 1132 D45 | 9250105901 | | |
| 23 | 2 | Knob M6 x 25 | 9250476301 | | |
| 24 | 1 | Positioner DA09 | 9350921051 | | |
| 25 | 6 | DIN 7984 - M4 x 12 9.9N | | | |
| 26 | 2 | ALLEN SCREW DIN 912 M8 x 25 (25mm THREAD) | 6310802501 | | |



PREMILLING UNIT PF-1



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- 1. Description And Aim Of The Unit
- 2. Work Description And Adjustment
 - 2.1 Screen Selection
 - 2.2..Work Description
 - 2.3..Electric Composition
 - 2.3.1 Electric Composition
 - 2.4..Unit Adjustment

2.4.1 Depth And Tilt Adjustment

3. Maintenance

3.1 General Maintenance

- 3.2 Tool Change
- 3.3 Inserts Change
- 4. Alarms
- 5. Errors And Solutions
- 6. Unit Composition
 - 6.1 Complete Unit
 - 6.2 Support Assembly
 - 6.3 Motor Assembly
 - 6.4 Rear Tracer Assembly



1 UNIT SCOPE AND DESCRIPTION

The job of the pre-milling unit is to remove all the irregularities that the panel may present in the profile. It is composed of a high-frequency motor, which avoids chipping at both lead and trail of panel.

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

2 WORK DESCRIPTION AND ADJUSTMENT

2.1 Screen selection

| ON | OFF |
|--------------|-----|
| <pre>A</pre> | |

2.2 Work description




2.3 Electric composition

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

| | Motor | Inverter |
|--------------|----------|----------|
| Main motor | otor 6M1 | |
| Output motor | 6M2 | 04 |

2.4 Unit Adjustment

*The adjustments described below are meant for trained technicians.

2.4 .1 Depth and tilt adjustment



- Adjust the motor depth losing the unit fixing bolts and acting accordingly on the depth adjustment knob.
- Adjust the motor tilt the unit losing motor tilt fixing bolt and acting accordingly on the tilt adjust 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 by taking out the fixing bolts.



- Lock the motor shaft rotation from bottom side with an Allen key of 6mm.
- Keep in mind that the shaft has Reverse thread due to its rotation.
- Use a 13mm spanner (or socket) to lose the tool fixing bolts.
- Now you should be able to remove the tools and replace.





3.3 Inserts change





4 ALARMS

| Alarm | Possible cause | Solution | |
|---------------|--|--|--|
| Thermic relay | Thermal relay alarm due to a motor malfunction | Motor referenceImage: Constraint of the second secon | |
| Inverter | Low input voltage Motor failure Inverter fault Worn tools | U2 Inverter display Inverter reference Inverter reference RESET Button RESET Button Locate the drive that caused the fault, write down the reference number to report the fault to the authorized technical service, and press the RESET button to be able to reset the fault from the screen. | |



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 (90 PSI) during
 operation.

| | Possible causes | Solutions |
|------------------------------------|-------------------------------|---|
| Pre-milling in angle (different | Incorrect apron height | If the apron is not on the same level as the drag chain, it may affect the finishing of the pre-milling unit. To do this, check the correct height by consulting the attached manual. |
| from 90°) | Motor tilted | Contact an authorized technician to verify and solve the fault. |
| | Linear bearing not clean | Without pneumatic pressure, check that the second motor moves freely. If necessary, clean and grease the linear bearings. |
| Uneven finish | 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 to 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 (0400068)



| Pre-milling PF-1 0400068 | | | |
|-----------------------------|------|---|------------|
| # | Qty. | Description | Reference |
| 1 | 1 | Support set | 5005407 |
| 2 | 1 | Cutting set | 5005410 |
| 3 | 5 | DIN 125 M8 WASHER | 6610800001 |
| 4 | 5 | ALLEN SCREW DIN 912 M8 x 25 (25mm THREAD) | 6310802501 |
| 5 | 1 | ALLEN SCREW DIN 912 M4 x 16 (16mm THREAD) | 6310401601 |
| 6 | 1 | Anti-splinter trigger assembly | 5005411 |
| 7 | 1 | Suction box PF-1 | 5005441 |



6.2 Support assembly



| Support assembly 5005407 | | | |
|--------------------------|------|---|------------|
| # | Qty. | Description | Reference |
| 1 | 1 | Group support | 403002908 |
| 2 | 1 | Hex knob | 404000583 |
| 3 | 1 | Horizontal adjustment axis | 404001397 |
| 4 | 1 | Brass Washer M8 | 6610800201 |
| 5 | 5 | DIN 125 M8 WASHER | 6610800001 |
| 6 | 1 | Regulation plate | 403002911 |
| 7 | 4 | DIN933 HEXAGON SCREW, M8 X 35 | 6360803501 |
| 8 | 4 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 |
| 9 | 1 | FLAT HEAD PRISONER DIN913 M4 X 5 | 6330400501 |
| 10 | 1 | Tray support | 401006413 |
| 11 | 1 | Group support | 403002908 |
| 12 | 1 | Hex knob | 404000583 |
| 13 | 1 | Horizontal adjustment shaft | 404001397 |



6.3 Motor assembly



| | Motor assembly 5005410 | | | | |
|----|------------------------|--|---------------|--|--|
| # | Qty. Description | | Reference | | |
| 1 | 1 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | | |
| 2 | 1 | ALLEN SCREW DIN 912 M5 x 16 (16mm THREAD) | 6310501601 | | |
| 3 | 2 | ALLEN SCREW DIN 912 M5 x 12 (12mm THREAD) | 6310501201 | | |
| 4 | 1 | DIN933 HEXAGON SCREW, M10 X 20 | 6361002001 | | |
| 5 | 1 | Washer DIN 6902 - A 9.3 | | | |
| 6 | 1 | Motor plate welding set | 5005408 | | |
| 7 | 1 | Guide base | 403002909 | | |
| 8 | 2 | KM2 Nut | 6151020001 | | |
| 9 | 1 | Motor regulation stop | 403000261 | | |
| 10 | 1 | Brass washer 25x15x2 | 404000195 | | |
| 11 | 1 | Screw with hexagonal head ISO 8676 - M8 x 30 | | | |
| 12 | 1 | Cutter washer | 404000144 | | |
| 13 | 1 | Lower bushing | 404000165 | | |
| 14 | 1 | Tecknomotor 1.1 Kw motor 41470305 | 5801501211 | | |
| 15 | 1 | Diamond cutters 60x65xd20 Left | 55_9310600661 | | |



6.4 Rear tracer assembly



| Rear tracer assembly 5005411 | | | | |
|------------------------------|------------------------------|-------------------------------|------------|--|
| # | # Qty. Description Reference | | | |
| 1 | 1 | HGH15CAZ0H | 102000136 | |
| 2 | 1 | HGR15R194C Guide | 102000705 | |
| 3 | 1 | Trigger support plate | 401006368 | |
| 4 | 1 | Anti-splinter trigger | 403002913 | |
| 5 | 1 | Bushing B101520-203 | 6221015201 | |
| 6 | 1 | Anti-splinter plate 409000624 | | |
| 7 | 1 | DIN933 HEXAGON SCREW, M5 X 16 | 6360501601 | |
| 8 | 3 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | |
| 9 | 1 | Trigger rocker axis | 404001873 | |
| 10 | 1 | SELF LOCKING NUT DIN982, M6 | 6420600001 | |
| 11 | 1 | E03600581750S | | |



GLUEPOT

Model: CBC.TPM Series Gluepot M2 Quick Change Series Version: 00 06/2023



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- 2. Screen Selection And Activation
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- 3. Operation And Adjustment
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- 4. Maintenance
 - 4.1 General Maintenance
 - 4.2 Changing Heating Elements
- 5. Alarms
- 6. Troubleshooting
- 7. Unit Composition
 - 7.1 Complete Gluepot
 - 7.1.1 Deposit Assembly
 - 7.2 Tracing Base
 - 7.3 Glue Roller Housing Assembly



1 UNIT SCOPE AND DESCRIPTION

The gluepot is a glue applicator unit for MAKSIWA automatic edge banders. It works with EVA glue. It has a capacity of 1.2 Kg and a power of 3 KW. It consists of:

- Deposit for melting the glue.
- Four 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 unit is in working position (unit lever engaged):





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 Unit description and adjustment points

Safety warning

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





| # | Element | Function |
|---|----------------------------|---|
| 1 | Glue regulator knob | Turning clockwise reduces the glue quantity and counterclockwise increases. |
| | Unit fixing bolts* | |
| 2 | Roller inclination* | Fixing the unit to the base and fixing the angle of the roller. |
| 3 | Self-locking nut: tracing | Tracing the unit (1mm set). |
| 4 | Self-locking nut: tension | Increase or reduce the tension of tracing. |
| 6 | Roller tracing plate* | Tracing plate with bolt to make a gap of 0.05 mm between roller and |
| 7 | Roller tracing plate bolt* | panel. |
| 8 | Gluepot deactivation lever | Retreats the gluepot. |
| 9 | Motor + gearbox | To move the glue roller |



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 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.

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 fails | 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 |
|----------------|--|---|
| | Panel cutting | Verify if the panel is at 90°. |
| the panel | Glue roller tilted | Follow the instructions described in this manual on how to adjust the unit inclination and consult a trained MAKSIWA technician |
| | Not enough tracing | Increase the tracing |
| Uneven glueing | Fault in glue roller housing assembly | Contact the technical service. |



7 UNIT COMPOSITION

7.1 Complete gluepot



| Complete gluepot assembly 0600103 | | | |
|-----------------------------------|------|----------------------------------|------------|
| # | Qty. | Description | Reference |
| 1 | 1 | Gluepot body | 5005340 |
| 2 | 1 | gluepot Support | 5005567 |
| 3 | 1 | ADJUSTABLE SHAFT NOZZLE ASSEMBLY | 5003737 |
| 4 | 1 | Heating element 1000542 400w | 3535125011 |
| 5 | 1 | Front heating insulating plate | 409000122 |
| 6 | 1 | Heating element cover | 401000772 |
| 7 | 4 | DIN 125 M8 WASHER | 6610800001 |
| 8 | 4 | DIN934 HEXAGONAL NUT, M8 | 6410800001 |
| 9 | 1 | N/A | 5000246 |
| 10 | 1 | Motor assembly | 5005338 |
| 11 | 1 | Vertical tracer spring | 500854 |
| 12 | 2 | Dock spring accommodation | 404000934 |
| 13 | 2 | SELF LOCKING NUT DIN982, M8 | 6420800001 |
| 14 | 1 | Plug set 60 | 5000172 |



7.1.1 Deposit assembly



| Deposit assembly 5003540 | | | | | | |
|--------------------------|-----------------------------|--|------------|--|--|--|
| # | # Qty. Description Referenc | | | | | |
| 1 | 4 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | | |
| 2 | 2 | ALLEN SCREW DIN 912 M5 x 16 (16mm THREAD) | 6310501601 | | | |
| 3 | 1 | ALLEN SCREW DIN 912 M10 x 25 (25mm THREAD) | 6311002501 | | | |
| 4 | 1 | Temperature sensor type J no. 25 D6x70 | 3482280001 | | | |
| 5 | 2 | Heating element D.10 x 100 315W | 3542101001 | | | |
| 6 | 4 | Threaded rod M8x70 | 404000514 | | | |
| 7 | 1 | Gluepot lid | 401006270 | | | |
| 8 | 1 | Fixed tank cover | 401006271 | | | |
| 9 | 1 | Gluepot tank | 408000246 | | | |
| 10 | 1 | Tracer bolt support | 401006268 | | | |
| 11 | 1 | DIN933 HEXAGON SCREW, M8 X 80 | 6360808001 | | | |



7.2 Tracing base



| | Tracing base CBC.TPM gluepot 5005567 | | | | |
|---|--------------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Tilting bar bench support | 409000620 | | |
| 2 | 1 | M1 pivoting shaft | 404000172 | | |
| 3 | 1 | Porosoil bushing15x20x25 B | 6221520151 | | |
| 4 | 1 | Porosoil bushing 15x20x15 A | 6211520151 | | |
| 5 | 1 | Gluepot pivoting support | 409000053 | | |
| 6 | 3 | ALLEN SCREW DIN 912 M6 x 35 (24mm THREAD) | 6310603501 | | |
| 7 | 1 | ALLEN SCREW DIN 912 M6 x 35 (35mm THREAD) | 6310603501 | | |
| 8 | 5 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | | |
| 9 | 1 | ALLEN SCREW DIN 912 M5 x 8 (8mm THREAD) | 6310500801 | | |



GLUEPOT

7.3 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 330°C | 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 screw 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 | | | | |



FEEDING TRAY



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 - 3.2 Feeding
- 4. Troubleshooting
- 5. Unit Composition
 - 5.1 Complete Unit Assembly
 - 5.2 Feeding Shaft Assembly



1 UNIT SCOPE AND DESCRIPTION

The feeding tray feeds the tape until middle of the first roller, so on front side of panel leaves an overhang of 5 mm and on rear side of panel cuts the edge tape leaving again 5 mm for the end trimming to work on it.

2 TAPE POSITION AND HEIGHT ADJUSTMENT

When feeding the tape for first time, make for following adjustment:

- Adjust correct height on nozzle knob.
- Adjust correct height on feeding tray stop.
- Position tape on guillotine cutting point.





3 GROUP PARAMETRES



MAKSIWA declines all responsibility associated with any alteration of the parameters of units by unauthorized personnel.

3.1 Guillotine

| HOME menu GROUPS PARAMETERS ICON | ו |
|--|--|
| CUTTING TIME The time the guillotine remains active. CUTTING DELAY TIME Cutting time for the excess of the rear part. | CUTTING SETTINGS 1 CUTTING TIME SP 0.00 S DELAY TIME SP 0.00 S |
| | |

3.2 Feeding





4 TROUBLESHOOTING

| Error | Possible cause | Solution | | |
|------------------------|--------------------------------------|---|--|--|
| | Guillotine status | Replace the guillotine cutter | | |
| Guillotine not cutting | 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. | | |
| | 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. | | |
| Edge not feeding | 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 0500175 | | | | | |
|----|----------------------------|---|------------|--|--|--|
| # | # Qty. Description Referen | | | | | |
| 1 | 1 | Feeding tray | 401006412 | | | |
| 2 | 1 | Feeder guided cylinder assembly | 5005057 | | | |
| 3 | 2 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | | |
| 4 | 5 | ALLEN SCREW DIN 912 M6 x 10 (10mm THREAD) | 6310601001 | | | |
| 5 | 1 | Handle M8x25 | 9206430841 | | | |
| 6 | 1 | Strip stopper | 404000497 | | | |
| 7 | 1 | Strip level guide | 404000498 | | | |
| 8 | 3 | DIN934 HEXAGONAL NUT, M8 | 6410800001 | | | |
| 9 | 2 | DIN 125 M6 WASHER | 6610600001 | | | |
| 10 | 1 | Strip guide plate | 401006227 | | | |
| 11 | 2 | DOUBLE HEAD SCREW, DIN7380 M4 X 8 | 6340400801 | | | |
| 12 | 1 | Roller | 404000499 | | | |
| 13 | 1 | strapping set | 5000725 | | | |
| 14 | 1 | guide shaft | 404000500 | | | |
| 15 | 1 | Cutter cylinder assembly (3MM) | 5004082 | | | |
| 16 | 1 | Tracer feeder assembly | 5005317 | | | |
| 17 | 1 | Top plate cutter clamping roller base | 401006250 | | | |
| 18 | 7 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | | |
| 19 | 4 | LARGE WASHER DIN9021, M6 | 6610600011 | | | |



5.2 Feeding shaft assembly



| | Feeding shaft 5005317 | | | | |
|----|-----------------------|---|------------|--|--|
| # | Qty. | Reference | | | |
| 1 | 1 | Tracer bracket support | 403002872 | | |
| 2 | 2 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | | |
| 3 | 2 | ALLEN SCREW DIN 912 M6 x 35 (24mm THREAD) | 6310603501 | | |
| 4 | 2 | DIN 125 M6 WASHER | 6610600001 | | |
| 5 | 2 | DIN934 HEXAGONAL NUT, M4 | 6410400001 | | |
| 6 | 2 | DIN933 HEXAGON SCREW, M4 X 12 | 6360401201 | | |
| 7 | 1 | Tracer-feeding bracket | 409000618 | | |
| 8 | 4 | 6800ZZ | | | |
| 9 | 2 | Conic sprocket di10 | | | |
| 10 | 1 | horizontal gear shaft | 404001849 | | |
| 11 | 1 | Panel tracing roller | 5005315 | | |
| 12 | 1 | vertical gear shaft | 404001850 | | |
| 13 | 1 | Feed Roller | 5005316 | | |
| 14 | 1 | PARALLEL PIN DIN6325, 4 X 20 - A - St | 6520402001 | | |
| 15 | 1 | Ext. Seeger Ring DIN471 10 X 1 | 6631000001 | | |



PRESSURE ROLLERS

Model: CBC.TPM Series Side Pressure Rollers Series Version: 00 10/2023



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- 1. Unit Scope and Description
- 2. Unit Adjustment And Maintenance
 - 2.1 Pressure Adjustment
 - 2.2 Pressure Rollers Cleaning
- 3. Unit Composition
 - 3.1 Main Assembly
 - 3.2 Base Support



1 UNIT SCOPE AND DESCRIPTION

The roller base functions to apply pressure to the edge, ensuring proper adhesion to the panel. It consists of two rollers with same diameter that presses evenly on all the surface of the edge against the panel, achieving a perfect adhesion, at the same cooling down the glue and preparing it for next units to work on.

2 UNIT ADJUSTMENT AND MAINTENANCE

2.1 Pressure adjustment



Use pressure knobs, move clockwise to reduce the pressure and counterclockwise to increase the pressure of the rollers ion panel.

2.2 Pressure rollers cleaning

For cleaning the rollers, do not use any rigid element that could damage them. To remove glue residue, use a cloth with thinner or a cleaning product.



3 UNIT COMPOSITION

3.1 Main assembly



| Side Pressure Rollers 0700130 | | | | | | |
|-------------------------------|--------------------|---|------------|--|--|--|
| # | # Qty. Description | | | | | |
| 1 | 2 | Straight roller assembly | 5000393 | | | |
| 2 | 1 | Pressure Set | 5005332 | | | |
| 3 | 4 | DIN 125 M8 WASHER | 6610800001 | | | |
| 4 | 1 | ALLEN SCREW DIN 912 M8 x 20 (20mm THREAD) | 6310802001 | | | |



3.2 Base Support



| | Side Pressure Rollers 5005332 | | | | |
|----|-------------------------------|---|------------|--|--|
| # | Qty. Description | | | | |
| 1 | 1 | Roller base plate | 409000619 | | |
| 2 | 1 | Front roller base | 403002878 | | |
| 3 | 2 | Pivoting shaft | 404001851 | | |
| 4 | 2 | Roller pressure stop | 403000503 | | |
| 5 | 2 | tilting block | 403002325 | | |
| 6 | 4 | PAP1515 P10 | 6240151501 | | |
| 7 | 6 | Friction washer | 404000361 | | |
| 8 | 2 | Guide Roller Shaft | 404001852 | | |
| 9 | 2 | Washer 15x3 | 404000367 | | |
| 10 | 2 | Allen screw M6x40 - DIN 912 | allenM6x8 | | |
| 11 | 2 | Spring pressure | 9294031501 | | |
| 12 | 2 | ALLEN SCREW DIN 912 M8 x 12 (12mm THREAD) | 6310801201 | | |
| 13 | 4 | ALLEN SCREW DIN 912 M5 x 16 (16mm THREAD) | 6310501601 | | |
| 14 | 2 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |
| 15 | 2 | ALLEN SCREW DIN 912 M4 x 30 (20mm THREAD) | 6310403001 | | |
| 16 | 2 | Radius Tensioner | 404000379 | | |
| 17 | 2 | DIN933 HEXAGON SCREW, M5 X 25 | 6360502501 | | |
| 18 | 2 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | | |



TRIMMING UNIT TX-4

Model: CBC.TPM Series Trimming Unit TX-4 Series Version: 00 10/2023



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- 1. Introduction
 - 1.1 Description And Objective Of The Unit
 - 1.2 Screen Selection And Manul Activation
- 2. Work Description And Adjustment
 - 2.1 Work Description
 - 2.2 Bottom And Front Working Sequence
 - 2.3 Top And Rear Trimmer Working Sequence
 - 2.4 Work Limits Minimum Distance Between Panels
 - 2.4.2 Unit Adjustment Points
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 - 4. Troubleshooting
 - 5. Unit Composition
 - 5.1 Complete Unit Composition
 - 5.2 Column Support
 - 5.3 End Trimming/Trimming Block Assembly
 - 5.4 Horizontal Tracing Assembly
 - 5.5 Vertical Tracing Assembly



1 INTRODUCTION

1.1 Description and objective of the unit

The patented unit TX-4, performs the following functions:

- Top and bottom trimming (flat and radius up to 2 mm).
- End trimming with vertical rounding.

This means, that the unit combines work of end trimming unit and top/bottom trimming unit.

1.2 Screen selection and manual activation



2 WORK DESCRIPTION AND ADJUSTMENT

2.1 Work description



When selecting and feeding a panel, both units go up and wait for next panel.



2.2 Bottom And Front Working Sequence



2.3 Top and rear trimmer working sequence





2.4 Work Limits - Minimum distance between panels



The following stickers indicates the minimum distance between panels when feeding. This safety distance allows to the unit to position for next panel.



Use the reference sticker and feed the panel when the rear side of previous panel passes through the minimum distance panels sticker.

2.4.1 Unit adjustment points





3 ALARMS

| Alarm | Possible causes | Solutions | | |
|---------------|---|--|--|--|
| Thermal alarm | Thermal relay alarm due to a motor malfunction | Motor reference TEST box, Relay status: Yellow: Alarm. RESET Button Locate the relay that caused the fault, write down the relay reference to report the fault to the authorized technical service, and press the blue buttor (RESET) and report the clarm from the career | | |
| | Low input | You can disable the unit with faulty motor to continue working. | | |
| | voltage | U2 Inverter display | | |
| | Engine failure | | | |
| Inverter | | Inverter reference | | |
| | Variator failure | RESET Button | | |
| | | Locate the drive that caused the fault, write down the reference number to report the fault to the authorized technical service, and press the RESET button to be able to reset the fault from the screen. | | |



4 TROUBLESHOOTING

Before making any adjustments to improve the finish, follow the next steps:

- Correct height of the pressure beam: Check that the pressure beam holds the panel properly and that the panel does not move in its path.
- Correct guidance of the chain with a long panel (+1.50m): Check with a long panel that it follows its trajectory with the infeeding fence. If the panel separates at the front or at the rear, this may result in an incorrect finish.
- Cleaning of the tracers: Check that the tracers have no traces of glue or other elements that attribute to false tracing.
- Free movement: Remove the pneumatic pressure to the machine and manually check that the unit moves freely in and out, up and down.
- Continuous pressure: Reconnect the pressure and check that it remains at 0.6MPa.

| Error | Possible cause | Solutions |
|-------------------------|-------------------------------------|---|
| | Wrong pressure | Check whether the tamper exerts sufficient pressure. Also clean the chain pads and tamper wheels. |
| The panel moves | Incorrect pneumatic pressure | Check the pneumatic diagram to determine the correct pressures. |
| Does not cut on time | Failure in screen times | Contact an authorized technician to remedy the fault. |
| Irregular cut | Excessive cutter/ feeder overrun | Adjust the feeder / cutter times so that the overrun does not exceed 10mm. |



5 UNIT COMPOSITION

5.1 Complete unit composition (0800075)



| | Trimming set TX-4 0800075 | | | | | |
|---|---------------------------|----------------------------------|-----------|--|--|--|
| # | # Qty. Description | | | | | |
| 1 | 1 | COLUMN SUPPORT | 5005427 | | | |
| 2 | 1 | End trim/Trimming block assembly | 5005430 | | | |
| 3 | 1 | End trim/Trimming block assembly | 5005430 | | | |
| 4 | 1 | Hold-down fixing support | 401006426 | | | |
| 5 | 1 | COLUMN SUPPORT | 5005427 | | | |


5.2 Column Support (5005427)



| | Trimming Support column 5005427 | | | | |
|----|---------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 2 | End bar support | 403002918 | | |
| 2 | 2 | Central bar support | 403002919 | | |
| 3 | 4 | Support bar | 404001842 | | |
| 4 | 2 | CDG1BN25_130Z_0_1_0_ | | | |
| 5 | 6 | FLAT HEAD GRUB SCREW DIN913 M8 X 12 | 6330801201 | | |
| 6 | 2 | FLAT HEAD GRUB SCREW DIN913 M8 X 16 | 6330801601 | | |
| 7 | 1 | Bar support front plate | 403002920 | | |
| 8 | 12 | ALLEN SCREW DIN 912 M8 x 25 (25mm THREAD) | 6310802501 | | |
| 9 | 3 | ALLEN SCREW DIN 912 M8 x 30 (30mm THREAD) | 6310803001 | | |
| 10 | 1 | Group support base | 403002921 | | |



5.3 End trimming/trimming block assembly (5005430)



| | Trimming block assembly 5005430 | | | | |
|----|---------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | End-cutting/trimming vertical tracer block | 5005429 | | |
| 2 | 1 | Horizontal tracer block end trimming/trimming | 5005428 | | |
| 3 | 1 | VF-1 aspiration | 408000251 | | |
| 4 | 1 | ALLEN SCREW DIN 912 M6 x 10 (10mm THREAD) | 6310601001 | | |
| 5 | 1 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | |
| 6 | 1 | ALLEN SCREW DIN 912 M5 x 12 (12mm THREAD) | 6310501201 | | |
| 7 | 1 | DIN933 HEXAGON SCREW, M5 X 50 | 6360505001 | | |
| 8 | 1 | SELF LOCKING NUT DIN982, M5 | 6420500001 | | |
| 9 | 2 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | | |
| 10 | 1 | FLAT HEAD PRISONER DIN913 M5 X 25 | 6330502501 | | |



5.4 Horizontal tracing assembly (5005428)





| | Horizontal tracing assembly 5005428 | | | | |
|----|-------------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | JC-2 cutter block | 17483 | | |
| 2 | 4 | KH12PP Linear Bearing | 102000028 | | |
| 3 | 1 | End trimming tracer | 403002922 | | |
| 4 | 1 | End trimming tracer support | 407000352 | | |
| 5 | 1 | Trimming Front tracer | 407000355 | | |
| 6 | 1 | Handrail Tracers adjustment | 401006397 | | |
| 7 | 2 | ALLEN SCREW DIN 912 M4 x 12 (12mm THREAD) | 6310401201 | | |
| 8 | 2 | ALLEN SCREW DIN 912 M4 x 16 (16mm THREAD) | 6310401601 | | |
| 9 | 3 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |
| 10 | 4 | DIN 125 M6 WASHER | 6610600001 | | |
| 11 | 1 | LARGE WASHER DIN9021, M8 | 6610800011 | | |
| 12 | 1 | DIN933 HEXAGON SCREW, M8 X 16 | 6360801601 | | |
| 13 | 1 | Teknomotor JC-2 motor | 5800550721 | | |
| 14 | 1 | Motor/tracer support block | 408000250 | | |
| 15 | 4 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | | |
| 16 | 2 | Positioner carpenter stop | 401006410 | | |
| 17 | 2 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | |
| 18 | 2 | Elesa vh 153-25 | 102000275 | | |
| 19 | 2 | DIN933 HEXAGON SCREW, M5 X 35 | 6360503501 | | |
| 20 | 2 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | | |



5.5 Vertical tracing assembly (5005429)





| | Vertical tracing assembly 5005429 | | | | |
|----|-----------------------------------|--|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 4 | Linear ball bushing KH2030 | 6172030001 | | |
| 2 | 1 | Sliding/tracing block | 409000625 | | |
| 3 | 2 | Linear Guide Ina w12 h6 L:133 | 404001875 | | |
| 4 | 1 | Vertical tracer support | 407000354 | | |
| 5 | 1 | Vertical tracer trigger | 407000348 | | |
| 6 | 1 | Horizontal/perpendicular adjustment of vertical tracer | 403002862 | | |
| 7 | 1 | Vertical tracer adjustment block | 403002861 | | |
| 8 | 6 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |
| 9 | 2 | ALLEN SCREW DIN 912 M4 x 20 (20mm THREAD) | 6310402001 | | |
| 10 | 1 | ALLEN SCREW DIN 912 M8 x 30 (30mm THREAD) | 6310803001 | | |
| 11 | 2 | ALLEN SCREW DIN 912 M4 x 12 (12mm THREAD) | 6310401201 | | |
| 12 | 2 | ALLEN SCREW DIN 912 M5 x 16 (16mm THREAD) | 6310501601 | | |
| 13 | 1 | Knurled PIN DIN1472 6 x 12 | 6570601201 | | |
| 14 | 2 | DIN 125 M6 WASHER | 6610600001 | | |
| 15 | 1 | DIN 125 M8 WASHER | 6610800001 | | |
| 16 | 2 | DIN 125 M5 WASHER | 6610500001 | | |
| 17 | 1 | DIN933 HEXAGON SCREW, M4 X 16 | 6360401601 | | |
| 18 | 1 | DIN933 HEXAGON SCREW, M6 X 30 | 6360603001 | | |
| 19 | 1 | DIN933 HEXAGON SCREW, M6 X 25 | 6360602501 | | |
| 20 | 1 | DIN934 HEXAGONAL NUT, M4 | 6410400001 | | |
| 21 | 1 | DIN934 HEXAGONAL NUT, M8 | 6410800001 | | |
| 22 | 1 | Vertical adjustment handrail | 403002866 | | |
| 23 | 4 | M6 brass washer | 6610600201 | | |
| 24 | 1 | Horizontal tracer regulator | 404001860 | | |
| 25 | 1 | Spring pressure | 9294031501 | | |
| 26 | 2 | SELF LOCKING NUT DIN982, M6 | 6420600001 | | |
| 27 | 1 | Horizontal adjustment handrail | 403002865 | | |
| 28 | 1 | Rear car top stop | 401006311 | | |



GLUE SCRAPPER

Model: CBC.TPM Series Glue Scrapper RR-1 Series Version: 00 10/2023



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- 2. Operation And Adjustment
- 3. Maintenance
 - 3.1 General Maintenance
 - 3.2 Tool Change
- 4. Troubleshooting
- 5. Unit Composition
 - 5.1 Top Glue Scrapper
 - 5.2 Bottom Glue Scrapper



1 UNIT SCOPE AND DESCRIPTION

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

2 OPERATION AND ADJUSTMENT



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

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

5 UNIT COMPOSITION

5.1 Top glue scrapper (1200032)







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| Top glue scrapper RR-1 1200032 | | | | |
|--------------------------------|------|---|------------|--|
| # | Qty. | Description | Reference | |
| 1 | 1 | Top main body | 403002887 | |
| 2 | 1 | Blade support | 403000136 | |
| 3 | 1 | Eccentric bearing 6002 | 404000075 | |
| 4 | 1 | Bearing 6002-2ZR | 5000057 | |
| 5 | 1 | COUNTERSUNK SCREW DIN7991, M4 X 12THREAD:12mm | 6320401202 | |
| 6 | 2 | FLAT HEAD PRISONER DIN913 M5 X 20 | 6330502001 | |
| 7 | 5 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | |
| 8 | 1 | Straight fitting | | |
| 9 | 1 | Scraper tracer shaft | 404001862 | |
| 10 | 1 | DIN 985 M10 self-locking nut | | |
| 11 | 1 | M10 Washer | 6611000101 | |
| 12 | 1 | Spring pressure | 9294031501 | |
| 13 | 1 | Spring adjustment | 404000357 | |
| 14 | 1 | DIN 934 - M8 Nut | 6410800001 | |
| 15 | 1 | Reinforced top bracket | 5005512 | |
| 16 | 2 | DIN 125 M8 WASHER | 6610800001 | |
| 17 | 1 | DIN 125 M6 WASHER | 6610600001 | |
| 18 | 2 | ALLEN SCREW DIN 912 M8 x 16 (16mm THREAD) | 6310801601 | |
| 19 | 1 | ALLEN SCREW DIN 912 M6 x 55 (24mm THREAD) | 6310605501 | |
| 20 | 1 | DIN933 HEXAGON SCREW, M6 X 25 | 6360602501 | |
| 21 | 1 | Glue scraper blade | 40900033 | |
| 22 | 2 | 1015du | 102000582 | |
| 23 | 1 | Spacer washer | 404000355 | |
| 24 | 1 | Locking plate RR-1 | 401006367 | |
| 25 | 2 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | |
| 26 | 1 | SELF LOCKING NUT DIN982, M6 | 6420600001 | |
| 27 | 1 | Hexagon Nut ISO 4033 - M6 - W - N | | |
| 28 | 1 | DIN933 HEXAGON SCREW, M5 X 50 | 6360505001 | |
| 29 | 1 | Tracer spacer washer | 404001889 | |



5.2 Bottom glue scrapper 1200033





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| | Bottom glue scrapper RR-1 1200033 | | | | |
|----|-----------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Main body top | 403002887 | | |
| 2 | 1 | Blade support | 403000136 | | |
| 3 | 1 | Blade Symmetry | 409000030 | | |
| 4 | 1 | Eccentric bearing 6002 | 404000075 | | |
| 5 | 1 | Bearing 6002-2ZR | 5000057 | | |
| 6 | 1 | DIN7991 COUNTERSUNK SCREW, M4 X 12 | 6320401202 | | |
| 7 | 2 | FLAT HEAD PRISONER DIN913 M5 X 20 | 6330502001 | | |
| 8 | 5 | DIN934 HEXAGONAL NUT, M5 | 6410500001 | | |
| 9 | 1 | Straight fitting | | | |
| 10 | 1 | Scraper copier shaft | 404001862 | | |
| 11 | 1 | spacer washer | 404000355 | | |
| 12 | 1 | DIN 985 M10 self-locking nut | M10 | | |
| 13 | 1 | M10 Washer | 6611000101 | | |
| 14 | 1 | Spring pressure | 9294031501 | | |
| 15 | 1 | Spring adjustment | 404000357 | | |
| 16 | 1 | DIN 934 - M8 Nut | 6410800001 | | |
| 17 | 1 | RR-1 Bottom Bracket | 401006522 | | |
| 18 | 2 | DIN 125 M8 WASHER | 6610800001 | | |
| 19 | 1 | DIN 125 M6 WASHER | 6610600001 | | |
| 20 | 2 | ALLEN SCREW DIN 912 M8 x 16 (16mm THREAD) | 6310801601 | | |
| 21 | 1 | ALLEN SCREW DIN 912 M6 x 55 (24mm THREAD) | 6310605501 | | |
| 22 | 1 | DIN933 HEXAGON SCREW, M6 X 25 | 6360602501 | | |
| 23 | 2 | 1015du | 102000582 | | |
| 24 | 1 | Locking plate RR-1 | 401006367 | | |
| 25 | 1 | ALLEN SCREW DIN 912 M6 x 20 (20mm THREAD) | 6310602001 | | |
| 26 | 1 | SELF LOCKING NUT DIN982, M6 | 6420600001 | | |
| 27 | 1 | Hexagon Nut ISO 4033 - M6 - W - N | | | |
| 28 | 1 | ALLEN SCREW DIN 912 M5 x 8 (8mm THREAD) | 6310500801 | | |
| 29 | 1 | ALLEN SCREW DIN 912 M6 x 25 (25mm THREAD) | 6310602501 | | |
| 30 | 1 | DIN933 HEXAGON SCREW, M5 X 40 | 6360504001 | | |
| 31 | 1 | bottom bracket spacer | 401006525 | | |
| 32 | 1 | Copier spacer washer | 404001889 | | |



BUFFING UNIT PC-3

Model: CBC.TPM Series Buffing Unit PC-3 Series Version: 00 10/2023



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- 7. Unit Composition
 - 7.1 Top Buffing Unit
 - 7.2 Bottom Buffing Unit
 - 7.3 Buffing Disk Assembly



1 UNIT SCOPE AND DESCRIPTION

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

| ON | OFF |
|----|-----|
| | |

3 OPERATION AND ADJUSTMENT

3.1 Work description

- The group oversees 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 trimmer 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 3° tilt vertically.
- Approximately 3° 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 | 110 |
| Bottom motor | 2M2 | 2F2 | 03 |



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 pre-milling 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 daily.
- 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

| Alarm | Possible cause | Solution |
|------------------------|---|--|
| Alarm Thermic relay | Possible cause Thermal relay alarm due to a motor malfunction | Solution Motor reference TEST box, Relay status: Yellow: Alarm. Green: OK RESET Button Locate the relay that caused the fault, write down the relay reference to report the fault to the authorized technical service and press the |
| | | blue button (RESET) and reset the alarm from the screen. You can disable the unit with faulty motor to continue working. |

6 TROUBLESHOOTING

| Fault | Possible cause | Solutions |
|--|---|---|
| Motor blocked /thermal relay alarm | Glue/edge strings 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 (1300042)



| | Top buffing unit 1300042 | | | |
|----|--------------------------|--|------------|--|
| # | Qty. | Description | Reference | |
| 1 | 1 | Transtecno TS5624B14 - 0.09 kW - 1320rpm | 10000013 | |
| 2 | 1 | T-angle connector clamp GN 192-B30-B30-40-2-SW | 102000568 | |
| 3 | 1 | Extendable apron washer | 404000377 | |
| 4 | 1 | Top fixed bar | 404001372 | |
| 5 | 1 | Tilting column (upper) | 404001697 | |
| 6 | 1 | polishing set | 5002132 | |
| 7 | 2 | DIN933 HEXAGON SCREW, M10 X 20 | 6361002001 | |
| 8 | 1 | DIN933 HEXAGON SCREW, M10 X 45 | 6361004501 | |
| 9 | 1 | SELF LOCKING NUT DIN982, M10 | 6421000001 | |
| 10 | 1 | DIN 125 M10 WASHER | 6611000001 | |
| 11 | 2 | Conical Washer DIN 6796-10 | 6691000001 | |
| 12 | 1 | Top motor support flange | 401006526 | |



7.2 Bottom buffing unit (1300039)



| | Bottom buffing unit 1300039 | | | | |
|----|-----------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Transtecno TS5624B14 - 0.09 kW - 1320rpm | 10000013 | | |
| 2 | 1 | Motor support flange | 401004789 | | |
| 3 | 1 | Tilting column | 404001465 | | |
| 4 | 1 | Buffing disc set | 5002132 | | |
| 5 | 1 | DIN933 HEXAGON SCREW, M10 X 20 | 6361002001 | | |
| 6 | 1 | DIN933 HEXAGON SCREW, M10 X 45 | 6361004501 | | |
| 7 | 1 | SELF LOCKING NUT DIN982, M10 | 6421000001 | | |
| 8 | 1 | DIN 125 M10 WASHER | 6611000001 | | |
| 9 | 2 | Conical washer DIN 6796-10 | 6691000001 | | |
| 10 | 1 | Bottom buffing support | 404001879 | | |
| 11 | 2 | ALLEN SCREW DIN 912 M8 x 25 (25mm THREAD) | 6310802501 | | |
| 12 | 2 | DIN 125 M8 WASHER | 6610800001 | | |
| 13 | 2 | FLAT HEAD PRISONER DIN913 M8 X 8 | 6330800801 | | |



7.3 Buffing disk assembly



| | 5002132 Buffing disc set | | | | |
|---|--------------------------|------------------------------|------------|--|--|
| # | 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 | | | |



BENCH FRAME

BENCH FRAME

Model: CBC.TPM Series Bench Frame Series Version: 00 09/2023



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 - 1.7 Main Sprocket
 - 1.10 Pressure Wheel Assembly
 - 1.11 Drag Chain Step Assembly
 - 1.12 Drag Chain Support Nylon



1 UNIT COMPOSITION

1.1 General bench frame



| | General bench frame – 5005566 | | | | |
|----|-------------------------------|--|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Main bench | 5005563 | | |
| 2 | 1 | Main sprocket assembly | 5005297 | | |
| 3 | 1 | Driven sprocket assembly | 5005295 | | |
| 4 | 1 | Transtecno drag gear motor | 5005420 | | |
| 5 | 1 | Chain guide fence | 403002916 | | |
| 6 | 1 | Pressure beam set | 5005416 | | |
| 7 | 3 | DIN 125 M10 WASHER | 6611000001 | | |
| 8 | 3 | ALLEN SCREW DIN 912 M10 x 25 (25mm THREAD) | 6311002501 | | |
| 9 | 1 | ALLEN SCREW DIN 912 M8 x 30 (30mm THREAD) | 6310803001 | | |
| 10 | 2 | Side foot guide | 403002945 | | |
| 11 | 12 | DIN 125 M6 WASHER | 6610600001 | | |
| 12 | 12 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |





1.2 Detailed bench frame



| | Detailed Bench Frame - 0100332 | | | | |
|----|--------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | BENCH PREASSEMBLY | 5005566 | | |
| 2 | 1 | Chain set 120 steps | 5005414 | | |
| 3 | 1 | Electric cabin door | 5005417 | | |
| 4 | 1 | Input bracket | 5005413 | | |
| 5 | 1 | Output bracket | 5005346 | | |
| 6 | 1 | Back cover | 401006379 | | |
| 7 | 6 | DIN 125 M6 WASHER | 6610600001 | | |
| 8 | 6 | DOUBLE HEAD SCREW, DIN7380 M6 X 10 | 6340601001 | | |
| 9 | 1 | Profiler suction bench cover | 102000243 | | |
| 10 | 3 | Suction bench cover | 102000239 | | |
| 11 | 1 | CBC.TPM central vacuum | 102000735 | | |
| 12 | 4 | HYPFA1016753D63922 | | | |
| 13 | 1 | PG9 | 10000046 | | |
| 14 | 1 | Cabin safety sensor SRBD40AN5 (sensor) | 10000015 | | |
| 15 | 2 | ALLEN SCREW DIN 912 M4 x 25 (25mm THREAD) | 6310402501 | | |
| 16 | 6 | DIN934 HEXAGONAL NUT, M4 | 6410400001 | | |
| 17 | 1 | Fitting PG29DN29 | 10000056 | | |



1.3 Cabin (1900300)



| | Cabin - 1900300 | | | | |
|----|-----------------|--|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Cabin door | 401006383 | | |
| 2 | 1 | Cab door side | 401006398 | | |
| 3 | 4 | COUNTERSUNK SCREW DIN7991, M6 X 20 THREAD:20mm | 6320602002 | | |
| 4 | 2 | CFM.50 SH-6-MD | 102000682 | | |
| 5 | 1 | SMB01F cabin door safe sensor switch | 10000014 | | |
| 6 | 1 | Lateral micro support | 401004724 | | |
| 7 | 1 | Cabin methacrylate | 102000707 | | |
| 8 | 1 | Ear 01 | 401006215 | | |
| 9 | 1 | Ear 02 | 401006605 | | |
| 10 | 1 | Symmetrical cabin door side | 401006399 | | |
| 11 | 1 | Cabin top methacrylate | 102000711 | | |



1.4 Pressure beam composition





| | Pressure Beam Composition - 5005416 | | | | |
|----|-------------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Pressure beam input adjustment shaft | 404001840 | | |
| 2 | 2 | Brass washer M20 | 404000214 | | |
| 3 | 2 | Sprocket 3/8" Z15 | 404001557 | | |
| 4 | 1 | Pressure beam output adjustment shaft | 404001838 | | |
| 5 | 2 | Pressure beam chain | 5005415 | | |
| 6 | 9 | ALLEN SCREW DIN 912 M6 x 16 (16mm THREAD) | 6310601601 | | |
| 7 | 4 | ALLEN SCREW DIN 912 M6 x 10 (10mm THREAD) | 6310601001 | | |
| 8 | 16 | ALLEN SCREW DIN 912 M8 x 12 (12mm THREAD) | 6310801201 | | |
| 9 | 6 | ALLEN SCREW DIN 912 M6 x 25 (25mm THREAD) | 6310602501 | | |
| 10 | 4 | ALLEN SCREW DIN 912 M6 x 12 (12mm THREAD) | 6310601201 | | |
| 11 | 2 | CFM.50 SH-6-MD | 102000682 | | |
| 12 | 1 | Pressure beam Chain cover | 401006381 | | |
| 13 | 1 | Pusher lifting handle | 9201001201 | | |
| 14 | 1 | DA09 Positioner | 9350921051 | | |
| 15 | 1 | Siko stepper cap | 404001492 | | |
| 16 | 2 | KMAT-3 self-locking nut | 102000695 | | |
| 17 | 1 | Front plate stepper | 401006375 | | |
| 18 | 2 | Handrail end pressure beam | 403002880 | | |
| 19 | 2 | Side slider pressure beam | 409000621 | | |
| 20 | 40 | wheel assembly | 5005364 | | |
| 21 | 1 | Cab roof pressure beam | 401006374 | | |
| 22 | 1 | Back plate stepper | 401006376 | | |
| 23 | 2 | Pressure beam input/output square bracket | 401006282 | | |
| 24 | 8 | DIN 125 M6 WASHER | 6610600001 | | |
| 25 | 2 | X-4T stopper square | 401006314 | | |
| 26 | 2 | Clamping bolt GN 708.1-M6-35-A-ST (0) | | | |
| 27 | 5 | Spacer distance bushing | 404001886 | | |
| 28 | 2 | Brass stand-off cap | 404001871 | | |



1.5 Drag chain motor



| | Drag chain motor - 5225297 | | | | |
|---|----------------------------|--|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Single-phase gear motor 0.25Kw i:100 14rpm | 5005362 | | |
| 2 | 1 | gearbox shaft | 404000016 | | |
| 3 | 1 | ALLEN SCREW DIN 912 M10 x 16 (THREAD16mm) | 6311001601 | | |
| 4 | 1 | Washer Ø40x4xØ10.5 | 404000253 | | |



1.6 Driven motor sprocket



| | Drive sprocket drag chain - 5225295 | | | | |
|---|-------------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | driven sprocket | 404000247 | | |
| 2 | 1 | driven sprocket shaft | 404001836 | | |
| 3 | 2 | 6005-2RS | 6116005301 | | |
| 4 | 3 | ALLEN SCREW DIN 912 M8 x 16 (16mm THREAD) | 6310801601 | | |
| 5 | 1 | DIN933 HEXAGON SCREW, M10 X 30 | 6361003001 | | |
| 6 | 1 | Washer Ø40x4xØ10.5 | 404000253 | | |
| 7 | 1 | Ext. Seeger Ring DIN471 26 X 1.2 | 6632600001 | | |

1.7 Main sprocket



| | Main sprocket drag chain - 5225297 | | | | |
|---|------------------------------------|---|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | driving sprocket shaft | 404001837 | | |
| 2 | 1 | Driving sprocket | 404001835 | | |
| 3 | 2 | 6005-2RS | 6116005301 | | |
| 4 | 3 | ALLEN SCREW DIN 912 M8 x 16 (16mm THREAD) | 6310801601 | | |



1.8 Pressure Wheel assembly



| | Pressure beam Wheel assembly - 5003400 | | | | |
|---|--|---------------------------|------------|--|--|
| # | Qty. | Description | Reference | | |
| 1 | 1 | Pressure beam Wheel shaft | 404001360 | | |
| 2 | 1 | Pressure beam wheel | 8880060601 | | |

1.9 Drag chain step assembly



| | Drag chain step assembly - 30000001 | | | | | |
|---|-------------------------------------|-----------------|-----------|--|--|--|
| # | Qty. | Description | Reference | | | |
| 1 | 1 | Drag chain step | 1000088 | | | |
| 2 | 1 | Rubber pad | 1000089 | | | |

1.10 Drag chain Support nylon



| Nylon support chain - 5000429 | | | |
|-------------------------------|------|---|------------|
| # | Qty. | Description | Reference |
| 1 | 1 | Drag chain Support roller | 404000249 |
| 2 | 1 | Roller shaft | 404000250 |
| 3 | 1 | Washer Ø25xØ8x4 | 404000252 |
| 4 | 1 | ALLEN SCREW DIN 912 M8 x 12 (12mm THREAD) | 6310801201 |



PNEUMATIC DIAGRAM

PNEUMATIC DIAGRAM





ELECTRICAL DIAGRAM

ELECTRICAL DIAGRAM









Power 3





Power 4



Drag Chain



ELECTRICAL DIAGRAM
























ELECTRICAL DIAGRAM





Temperature probe module





Connection Screen

