

Instructions



Biaxial Mixer ROTA X.40

**Keep this manual within immediate
reach of the machine**

Translation of the original instructions -en English

 **Collomix**

Version 1.1-20





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1. Layout Drawings

1.1 Machine components



Machine components

① Power supply and AC fuse	⑧ Door
② Lower clamping plate	⑨ Rubber band for handle fixation
③ Upper clamping plate	⑩ Loading shelf
④ Manual door release	⑪ Cleanout
⑤ Main switch and DC Fuse	⑫ Machine feet
⑥ EMERGENCY STOP Switch	⑬ Transport rollers
⑦ Control unit	



1.2 Operating and display components



Button for DOOR

› OPEN door



Button E

› OPEN the mixing unit
› STOP – stop mixing cycle prematurely
› ACKNOWLEDGE messages



Button I

Mixing cycle I (Factory settings 1:00 mins)



Button II

Mixing cycle II (Factory settings 1:00 mins)



Button III

Mixing cycle III (Factory settings 1:00 mins)

**The specified mixing times are factory settings and may vary by customer*

2. About this document

This instruction uses symbols and labels, which should make it easier for you to find information swiftly. Please read the explanations in the following Section. Please read the safety and warning information in these instructions especially carefully. Safety information is in Chapter 2. You find information on warnings in the introduction of Chapters and before instructions.

Collomix GmbH owns the copyright of images and text.

Please read the operating instructions prior to first use. Pay attention to safety instructions. Keep for future use. This documentation is not subject to change services.

In addition to the information in these operating instructions, the occupational safety and health regulations applicable at the place of use must be observed.

2.1 Pictograms and symbols

Warnings

The following symbols and signal words are used in this documentation.

Symbol	Meaning
DANGER 	This signal word is used, if death or severe physical injuries is the result of not paying attention to the corresponding precautionary measures.
WARNING 	This signal word is used, if death or severe physical injuries may result from not paying attention to the corresponding precautionary measures.
ATTENTION 	This signal word is used, if slight physical injuries occur from not paying attention to the corresponding precautionary measures.
CAUTION	This signal word is used, if malfunction of functions or property damages may occur from not paying attention to the corresponding precautionary measures.
IMPORTANT	This signal word is used for easing operation or for pointing to references.

Structure of warnings

DANGER

The first line describes the type and source of danger.

The second line describes the consequences which occur if no actions are taken to avert the danger.

➔ The last line describes the actions to take in order to avoid the danger.



WARNING

Danger of injury through disregard of safety symbols

Ignoring the warnings on the equipment and in the operating instructions can lead to injuries and additional risks.

➔ Pay attention to the warnings on the equipment and in the operating instructions.



The following special safety symbols are used in the appropriate text portions of these Operating Instructions.

Mandatory signs

Symbol	Explanation	Symbol	Explanation
	Please read the information		Disconnect from power
	Use protective gloves		

Warning signs

Symbol	Explanation	Symbol	Explanation
	Warning from a danger zone		Danger of electric shock

Position numbers to the illustrations are stated in parenthesis in the text.

3. For your safety

The biaxial mixer was developed, manufactured, and tested in accordance with the basic safety requirements. Despite, there is an element of risk.

- Therefore, please read these Operating Instructions before working with the machine.
- Keep the Operating Instructions within immediate reach of the machine.
- Please hand the Operating Instructions to any subsequent owners.

3.1 General Safety Information

The basic safety information of this Chapter is supplemented by precise warnings in further chapters of the Operating Instructions.

3.2 Intended Use

The biaxial mixer is intended to mix:

- Colours
- Colour granulates
- Façade colours
- Industrial colours
- Plaster

Any other or expanded use of the biaxial mixer is a non-intended and therefore, improper use. In this case, the safety mechanisms and the protection provided by them may be compromised. Collomix GmbH is not liable for any damages caused by it. Parts of the intended use are:

- Complying with all information in these Operating Instructions
- Complying with all safety information
- Complying with the inspection and maintenance work



3.3 Foreseeable Misuse

Any reasonably foreseeable misuse, which can be hazardous for the user, third parties, or for the machine are:

- The use of the Shaker and its accessories contrary to the intended use.
- The use of damaged containers or containers not suitable for mixing.
- Operation in any areas where there is a potentially explosive atmosphere and mixing of explosive substances.
- The use of substances, which react chemically with one another; in particular, expanding substances.
- Mixing pressurized containers such as aerosol cans.
- The use of the equipment outside the limitations described in this instruction.
- The modification of the control software without the prior coordination with Collomix GmbH.
- Modifications on the machine or control software as well as add-ons and retrofits.
- The use of non-original replacement parts
- Operating the system contrary to the requirements of the Operating Instructions concerning safety information, installation, operation, servicing and maintenance, set-up, and malfunctions.

WARNING

Danger of injury through improper modifications

Hazards exist through unauthorized modifications to the system and the use of third party spare parts.

- Use only original spare parts and accessories of the manufacturer.
- Do not change, add to, or retrofit the system without the consent of the manufacturer.



3.4 Qualifications of operating personnel

These Operating Instructions are directed toward operators and personnel with the following areas of competency:

Working area	Expertise
Installation and Commissioning	Specialised staff
Operation and Cleaning	Instructed staff
Service and Repair	Specialised staff

Instructed staff:

A person, who was instructed by an expert in the responsibilities he or she has been assigned and any possible hazards in case of improper behaviour and a person, who was trained in the necessary protective devices and protective actions, if needed.

Specialised staff:

Persons who can evaluate the work assigned to them and recognize possible dangers on the basis of their specialised training, knowledge, experience, and familiarity with the relevant norms.



3.5 Safety-relevant components

The machine is equipped with various safety devices. These help to avoid dangers to body and life through electrical and mechanical impacts on the persons working with the biaxial mixer and they help to limit any material damages to the system.

- **Do not bypass, remove, or render ineffective the safety equipment.**
- **Do not operate the system if the safety equipment is not complete or fully functional.**



3.5.1 Closed housing

The housing, which can only be opened with tools, forms a fixed, separating safety device. Therefore, do not operate the machine if the rear panel or other covers are open; Unplug mains before opening this, to avoid a start.

3.5.2 Machine door with interlocking device ⑧

The door forms a locking, separating unit with interlocking device. The machine cannot be started when the door is open. The door is only released after the mixing process has ended and the mixing vessel is released. Never operate the machine if the machine door is damaged.

3.5.3 EMERGENCY STOP Switch ⑥

In emergencies the EMERGENCY STOP switches to halt the machine, if needed.

3.6 Residual Risks

If all precautions are taken, there may be obvious residual risks. Adhering to the safety instructions, the designated use, and the operating instructions as a whole can reduce residual risks!

4. Equipment Description

The biaxial mixer is a stationary mixing device for closed, tightly closing, round and oval vessels made of metal or plastic. It is suitable for mixing colours, colour concentrates, building and industrial lacquers, and other materials with low viscosity.

The area of application ranges from the colour wholesale to retail trade, the lacquer and chemical industry to any similar areas. This mixing device is especially suited as system component for colour dosing systems.

The container is automatically clamped into the machine and mixed by simultaneously rotation about its longitudinal and transverse axis.

The necessary mixing time and the suitability of the containers must be determined by mixing trials prior to use.



5. Set-up and using the Mixer for the first time

The machine is intended for indoor use and is to be protected from the elements.

When choosing the installation site, ensure that there is sufficient lighting and a work surface in front of the machine. Machine parts must not protrude into aisles and walkways!

5.1 Content

The biaxial mixer is delivered with the following:

- This Operating Instruction
- A rubber band to secure the handles
- A power supply cord

5.2 Set-up the equipment

The machine is delivered on a wooden pallet packaged in recyclable cardboard. Check the packaging immediately upon receipt and the equipment when unwrapping it for any visual external defects. Keep all parts of the original packaging for a possible necessary return.

The machine shall be operated only by qualified personnel using suitable lifting equipment e.g. a forklift truck to be lifted from the palette. Only move the fork in from the front or back to avoid damaging the transport rollers (5.3)!

Do not operate the machine on the shipping pallet. Pay attention to the weight of the machine specified in 11.1 not to exceed the permissible load of the floor.

Check the level of alignment and the stability of the machine with a spirit level. Adjust any unevenness in the floor with the adjustable levelling feet ⑫. Secure three of the four machine feet with the lock nut.

Then fine- adjust the fourth machine foot. To do this, perform a test run with heavy containers while adjusting the fourth levelling feet until the best possible alignment of the machine was found. Secure the fourth levelling feet after the adjustment with the locknut.

When using a frame for height modification, its suitability must be checked regarding the vibration behaviour and the load burst before commissioning from the operator. If in doubt, contact Collomix.

5.3 Transport rollers

The mixer is equipped with two transport rollers on the bottom of the housing. These transport rollers can be made to protrude out of the mixing compartment by turning a screw ⑬ on each side of the machine.

- Use a suitable tool size SW 17 to turn out the transport rollers on both sides of the machine.
- The door must be opened for the machine to be handled safely during transport. Secure the opened door with the hand against swinging
- Carefully tilt the mixer and move it.

When you are finished moving the machine, turn the transport rollers back.

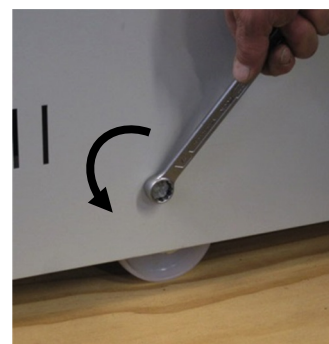
5.4 Mains connection

Pay attention on proper protection of the electrical circuit such as described under 11.1 Only use Type B residual-current devices (RCD).

Place the mains cable in a way to prevent from stumbling or snagging.



Machine foot



Transport rollers



5.5 Trial run

A trial run with an empty mixing container must be conducted when first starting the machine or after maintenance and repair work in order to check the proper function of the machine.

WARNING

Risk of injury due to protruding parts

Parts may protrude from the equipment.

- Always work diligently on the equipment and in close proximity of the equipment.
- If the machine is not used and turn it off on the main switch.



6. Operation

Prior to working with the machine, check all parts for their proper condition and function. Do not start the machine with defective or missing parts.

Check all safety-relevant structural components of the machine for proper function before starting it. Any defective or damaged parts must be replaced by qualified personnel prior to starting to work with it.

6.1 Switching on the machine

The machine is turned on using the main switch (5). After an automatic initialisation, clamping plates (2) and (3) are moved apart and the door is opened by spring force. On the display (7) is shown **START**.

Any errors detected during initialisation are shown in text form on the display.

6.2 Load a container

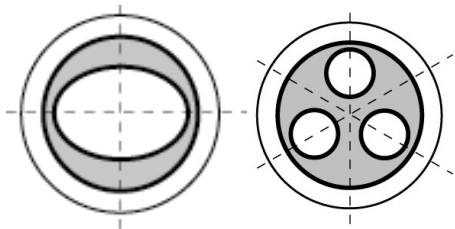
Only use sufficiently stable and tight-closing vessels for mixing. In case of doubt, consult the manufacturer of the mixing vessels.

To place the container, proceed as follows:

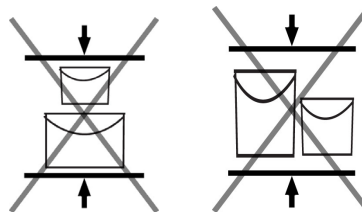
- If necessary, unlock and open the door (8) by pushing the **DOOR** button.
- Observe the weight and size limits of the mixing vessel. Never overload the machine!
- Place the container centrically on the lower clamping plate (2). The handle of the container shall be backwards to the built-in handle fixation. In case the built-in handle fixation is not working, please use a tensioning rubber or an adhesive tape to prevent the handle from hurling around during the mixing. **Never mix a container without proper fixation of the handle.**
- Use only undamaged containers, never stack containers!
- A suitable centering ring is necessary if oval containers are to be mixed!
- Several identical containers can be mixed at the same time. Pay attention to a symmetric arrangement of the containers on the mixing plate.



Securing the handle with a rubber band



Place containers always in the centre.



Do not stack containers!



6.3 Starting the mixing cycle

The mixing cycle can only be started after the door is closed.

Push buttons I, II, or III to start the mixing process. The corresponding mixing times are shown on the LD display above the keypad.

The mixing container is clamped into the machine and the mixing process is started. The remaining mixing time is displayed during the mixing process.

6.4 Ending the mixing cycle

After the selected time is over

- The mixing process is automatically stopped. The mixing unit is moved to the 12 o'clock position and opens automatically. The door is opened by spring force, and the container can be removed. If necessary, unlock and open the door ⑧ by pushing the **DOOR** button.

Before the selected time is over

The mixing process can be stopped early by pushing the E-button.

6.5 End of work

When the machine is not in use, the door should be kept closed.

When done working, switch the machine off at the mains switch ⑤.

6.6 EMERGENCY STOP switch

In dangerous situations, the machine can be turned off with the EMERGENCY STOP switch ⑥.

Reset the EMERGENCY STOP switch

The EMERGENCY STOP switch must be reset by hand.

- Rotate the red control element clockwise.
- Confirm the message in the display by pushing the E-button.

DANGER

Danger of death by dangerous voltage

There is a residual electrical energy in lines and equipment after the EMERGENCY STOP switch is used. The EMERGENCY STOP switch does not disconnect the machine from the mains voltage.

- If maintenance or repair work is carried out on the machine, always unplug the power cord.



After reset of the EMERGENCY STOP switch, the mixing unit must be manually turned into 12 o'clock position in order to release the mixing container. Please follow therefore the instruction under **7.2 E080 MU unlocked**



7. Errors and Troubleshooting

The troubleshooting tables in this Chapter will help you to determine whether you can troubleshoot yourself or whether you need to call customer service.

DANGER

Danger of death by dangerous voltage

Please note that all maintenance and servicing jobs must be left strictly to authorized and suitably trained expert staff. This applies in particular to those jobs printed on a **gray** background which have to be performed with the housing open.



7.1 Possible errors

Fault	Description	Machine condition	Solutions
E010	Door open	• Door open	• Close door
		• Door closed	• Check the door lock • Check the power cord / plug to the door lock.
E020	EMERGENCY STOP activated	• EMERGENCY STOP button pushed	• Release the EMERGENCY STOP
		• EMERGENCY STOP button not pushed	• Check the switch of the EMERGENCY STOP button • Check the power cord / plug to the EMERGENCY STOP button.
E050	Defective container	• Container is defect	• Container is unstable or pre-damaged
			• Check clamping pressure and if necessary, adjust
E070	Mixing Unit locked	• Latching pin blocked	• The latching pin is blocked – clean and lubricate, replace if necessary
		• Latching pin released	• Check the lead/connector to the switch of the mixing unit lock.
			• The switch of the mixing unit lock is defective.
E080	Mixing Unit unlocked	• Latching pin blocked	• The mixing unit is not 12 at o'clock position
			• Check the lead/connector to the switch of the latching pin • The switch of the mixing unit lock is defective
		• Latching pin released	• Check the lead/connector to the switch of the mixing unit lock. • The switch of the mixing unit lock is defective
E120	Mixing speed too low	• The mixing unit rotates	• Check the lead/connector to the "position" proximity switch • The "position" proximity switch is defective
		• The mixing unit does not rotate	• Check frequency converter • Check the door safety switch • Check the main motor
E130	Mixing speed too high	• The mixing unit rotates too fast	• Decrease the motor speed
E150	Error clamp motor	• The mixing container is not clamped	• Check the clamp motor
			• Check the lines to the clamp motor • Check the control



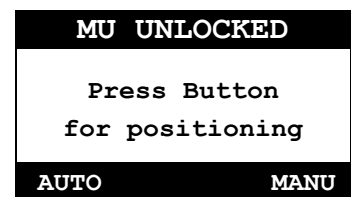
Fault	Description	Machine condition	Solutions
E170	Error door lock		Close door completely
			- Check the door lock - Check the connection of the door lock - Check door motor
E220	SHOCK ERROR		- Container is placed de centred - Check alignment of the machine
			Adjust mixing speed according container height

The grey highlighted services can only be carried out by specialised staff.

7.2 E080 MU unlocked

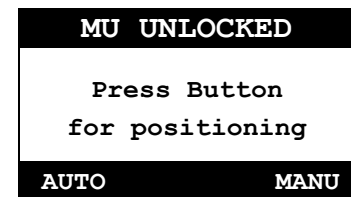
The mixing unit was not positioned and fixed in the 12o'clock position.

This condition occurs upon actuation of the EMERGENCY STOP button ⑥ or upon interruption of the power supply during the mixing process.



AUTO

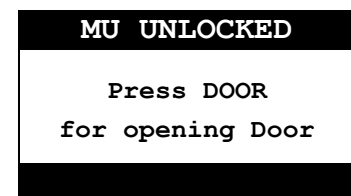
With the container **clamped** or the mixing unit **not loaded**, the mixing unit can be automatically positioned and fixed with the help of **Button I (Auto)**



MANU

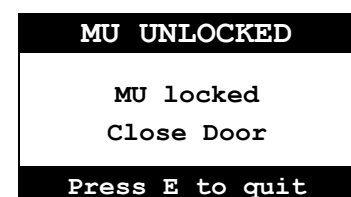
With the mixing container unclamped, the mixing unit must be positioned manually.

Upon actuation of Button III (MANU), the door can be opened by pressing the DOOR button.



Remove mixing unit from the mixing space and fix mixing unit manually in 12o'clock position

Quit manual positioning by pressing the E button



7.3 Unlock door manually

The machine is equipped with a safety lock, which locks the door automatically after it is closed. In the event of a malfunction or power outage, the door can be unlocked manually.

- Disconnect the machine from the mains by pulling out the mains plug.
- Insert a screwdriver into the hole of the door release and press downwards
- The door opens automatically.



Door unlocking device

WARNING

Risk of injury by machine parts that continue to rotate

When activating the manual door release, the mixing process is interrupted automatically. The mixing unit will run for a few seconds up to a complete standstill.

- Use the manually door unlocking device only in case of emergency.
- Before using the manually door unlocking device, always disconnect the machine from the mains by pulling out the mains plug.
- Never use the manually door unlocking device whilst the mixing unit is turning.



7.4 Fuses on the device

7.4.1 Device fuse

If line voltage is available but the power button does not light up, the cause may be a faulty device fuse.

The device fuse is in the mains connection ① on the back of the machine. Only use 5x20mm, 230V/10AT fuses to replace a blown fuse.

If the device fuse is tripped again, there is a defect in the control unit. If this is the case, contact an authorised service partner to correct the error.



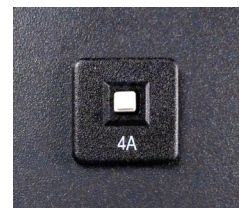
Device fuse

7.4.2 DC fuse

If the power button is on, but nothing is showing on the display of the operating unit, the cause may be a tripped DC fuse.

The DC fuse is located next to the power button ⑤. After the fuse is tripped, wait at least one minute, and only then press the pin back in until it locks into place.

If the device fuse is tripped again, there is a defect in the control unit. If this is the case, contact an authorised service partner to correct the error.



DC fuse

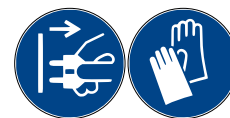


8. Maintenance

It is necessary to check, clean, and service the machine regularly to ensure continuous function.

Unplug the machine from power by pulling the plug before all cleaning, maintenance, and repair work is done on the machine.

Use protective gloves to avoid injuries on sharp edges when working inside the machine



8.1 Cleaning

Remove any spilled mixed compound **immediately** from the interior of the machine. For this purpose, use a rag or a scraper. Be careful not to damage any connections or sensors.

After cleaning the splash guard, apply a thin film of spray oil to avoid any sticking of colour splashes.

8.1.1 Weekly cleaning

- Check lower ② and upper clamping plate ③, remove any dirt if necessary.
- Check the function of the integral door ⑧ and remove any paint from the door guide so that the door slides and closes easily.
- Check the handle fixation ⑨ for wear and tear. Replace if necessary.

CAUTION

Damage to the machine through wrong cleaning

- Never use solvent cleaning agents such as acetone, gasoline, or similar aggressive substances to clean the door window or the control panel. Such substances can corrode or even destroy plastic parts.
- Never clean the machine with a high-pressure cleaner or water hose! This washes out the grease lubrication of the ball bearings and promotes corrosion.



8.2 Service

Only qualified personnel may carry out maintenance and repair work. Use only original replacement parts.

8.2.1 Annual service

- Clean the threaded spindles and lubricate with Mobilux EP2.
- Check the timing belt for wear and tear.
- Check the door lock, locking mixing unit and spring contacts. Adjust if needed.
- Check the clamping plates ② and ③ for wear and tear. Replace if needed.

8.2.2 Runtime-dependent service

The timing belt of the mixing unit must be replaced by an authorized service technician every 30,000 mixing cycles but no later than after 1,000 operating hours.

The number of cycles and the operating hours are shown on the LC display of the operating unit during the initialization after the machine is turned on.



- ② Lower clamping plate
- ③ Upper clamping plate
- ⑧ Integral door
- ⑨ Handle fixation



8.3 Repair

If service is required, please consult the customer service or the manufacturer of the machine.

DANGER

Danger of death by dangerous voltage

Do not open the housing or remove any safety equipment of the machine. Please note that all maintenance and servicing jobs must be left strictly to authorized and suitably trained expert staff. The proper state of all safety equipment and electrical equipment is to verify and document after the repair.



- Only use original spare parts.
- Do not modify or change safety-related parts!
- Any additional components added may not impair safety and must be approved by the manufacturer.

8.4 Consumables

The following parts are available for the device:

Part	Article no.:
Rubber for the handle fixation	62878
Mobilux® EP2 grease 150 g	61299

Spare parts are available under www.collomix.de.

9. Storage, disposal

9.1 Storage

The storage area should be cool and dry in order to prevent corrosion on the individual parts of the machine.

The room temperature of the storage area must be constantly above freezing.

- Package the device to prevent any damages through outside impacts during storage.
- If necessary, use cardboard and other packaging material.
- Secure the machine against unintentional tilting and instability.

9.2 Disposal

The transport package is made of recyclable material. Please dispose this material accordingly.

At the end of the useful life, the machine must be properly disposed to return the used raw materials to the recycling loop. Please contact the manufacturer directly for any questions concerning disposal.



10. Appendix

10.1 Technical Specifications

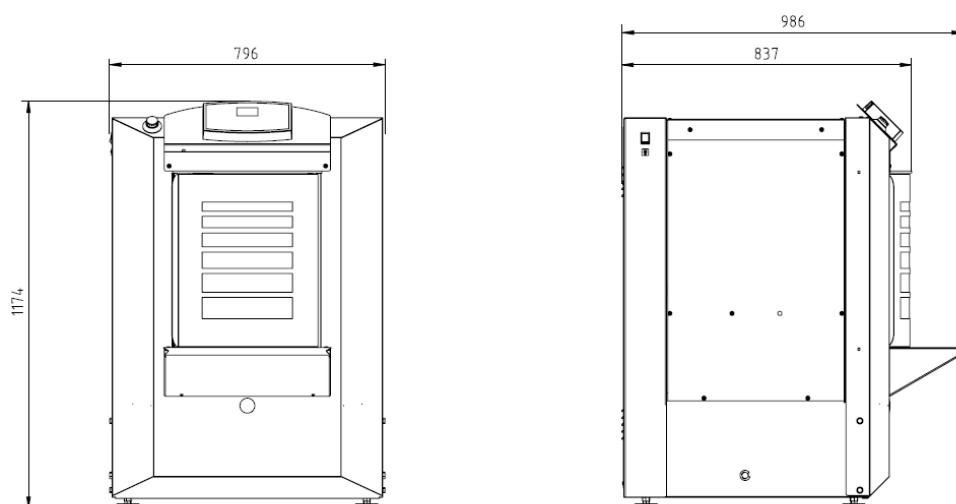
ROTA X.40	
Power supply:	230 V / 50 Hz
Rated power:	1,1 kW
Device fuse:	10 AT
Line fuse:	16 A C (RCD Typ B)
Speed of mixing unit:	- 145 rpm
Mixing weight:	max. 40 kg
Container height:	70 – 400 mm
Container diameter round	max. 360mm
Container diameter oval	max. 360x359mm ¹
Container type:	Round, metal or plastic
Ambient temperature	5 ... 30°C
Machine weight:	152 kg

¹ A suitable centering ring is necessary if oval containers are to be mixed.

Noise emission in accordance with 2006/42/EG

Sound pressure level L_{pA}	55 dB re 20 μ Pa
Sound power level L_{WA}	65 dB re 1 pW
Uncertainty K_{pA+WA}	3 dB

10.2 Dimensions



Dimensions ROTA X.40



10.3 EC Conformity Declaration

We hereby declare under our sole responsibility that the products

ROTA X.40

are in conformity with the following European directives:

2006/42/EC; 2014/30/EU; 2011/65/EU

The following harmonized standards were applied:

EN 60204-1:2006 + A1:2009 + AC:2010, EN ISO 12100:2010, EN ISO 13849-1:2015, EN 50581:2012
EN 55011:2009 + A1:2010 (group 1, limit class B), EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-2:2005

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Gaimersheim, 10.06.2020

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IMPORTANT

This declaration of conformity will lose its validity if any changes or modifications are made to the machine without the manufacturer's approval.

10.4 Warranty

For your rights in the event any rectifications become necessary, please read our General Delivery Terms and Conditions.

You find these on our website www.collomix.de. We are happy to send you our General Delivery Terms and Conditions on request.



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