

Operating instructions

(Translation of the original operating instructions en - English, Rev. 1.1 - 01/2024)



Rotation Mixer

AOX 650

Art.nr. 37090 (230V EU)

AOX 650.T

Art.nr. 37091 (230V EU)

Store the operating instructions readily available at the machine.



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Overview of the machine elements



- 1 Bucket holding fixture
- 2 Mixing bucket
- 3 Scraper
- 4 Mixing tool
- 5 Mixing tool holding fixture
- 6 Swivel arm
- 7 Suction nozzles for vacuum

- 8 Mixing tool motor
- 9 Belt eyelet
- 10 On/Off switch
- 11 Time selector switch (version AOX 650.T only)
- 12 Mains plug
- 13 Tool for changing mixing tool
- 14 Transport handle



AOX 650.T in closed state



Mixing tool KR (70151):

Mortar, screed, concrete (-8 mm), chalk/gypsum plasters, lightweight masonry mortar, epoxy resin mortar, plastic adhesive mortar, tile adhesive



Mixing tool DLX (70149):

Thin-bed mortars, slurries, membrane and levelling compounds, liquid plastics, aqueous dispersions

Technical data:

Large Mixing bucket:	65 litre	
Usable quantity:	max. 50 kg	
Rotary plate motor:	0.55 kW / 230 V~ 50 Hz	
Mixing bucket speed:	18 min ⁻¹	
Mixing tool motor:	1.2 kW / 230 V~ 50 Hz	
Idle speed of mixing tool:	n ₀ =	925 min ⁻¹
Mixing tool on-load speed:	n _L =	630 min ⁻¹
Weight:	51 kg	
Protection class:	IP 20	
Dimensions:	600 x 820 x 890 mm	

Directive 2000/14/EG		
L _{WA,m} =	96.4 dB (A)	
σ _t =	2.17 dB (A)	

Noise level in accordance with EN 62841	L _{pA} =	85 dB (A)
Measuring uncertainty	K _{pA} =	3 dB (A)
Sound power level in accordance with EN 62841	L _{WA} =	97 dB (A)
Measuring uncertainty	K _{WA} =	3 dB (A)

Declaration of EC Conformity

We hereby declare on our sole authority that this product complies with the following standards or normative documents: EN 12100:2010, EN 60204-1:2018; EN 62841-1:2015+AC:2015+A11:2022; EN 62841-2-10:2017; EN 55014-1:2021, EN 55014-2:2021; EN 61000-3-2:2019; EN 61000-3-3:2013 + A1:2019 as per the provisions of Directives 2014/30/EU, 2006/42 EG, 2011/65/EU, 2000/14/EG



Gaimersheim, 2023-06-01
Alexander Essing, CEO

Technical documentation to be requested from:
Collomix GmbH
Technical Development Department
Daimlerstr. 9, 85080 Gaimersheim
Germany



Scope of delivery

Machine with two mixing tools
1x special 65 l mortar bucket
2x open-end wrenches SW 22 and SW 24
1x Operating instructions

Consumables

The following consumables are available:

Article:	Article number:
Mixing bucket, 65 litre	60403
AOX-KR mixing tool	70151
AOX-DLX mixing tool	70149

About this document

These instructions use symbols and labels that help you find information quickly. Read the respective explanations in the following section. Read the safety and warning information in these instructions particularly thoroughly. You can find the safety information starting from page 5. Refer to the chapter introductions and passages leading up to instructions for warnings.

The copyright for images and texts remains with Collomix GmbH.

You must read the operating instructions prior to initial commissioning. Observe the safety information. Keep for future use. This documentation is not monitored by a change service.

Signs and symbols

Warnings

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

Symbol	Meaning
DANGER	
	If this signal word is used, death or serious injuries will occur if the respective precautionary measures are not observed.
WARNING	
	If this signal word is used, death or serious injuries may occur if the respective precautionary measures are not observed.
CAUTION	
	If this signal word is used, minor injuries may occur if the respective precautionary measures are not observed.
ATTENTION	
	If this signal word is used, malfunctions or material damage may occur if the respective precautionary measures are not observed.
NOTICE	
	If this signal word is used, operating tips or cross-references will follow.

Structure of warnings

DANGER

The first line describes the type and source of the danger

- The second line describes the consequences if no danger prevention measures are taken.
- ⇒ The last line describes danger prevention measures.



WARNING

Risk of injuries due to non-observance of the safety symbols

- Non-observance of the warnings on the device and in the operating instructions can lead to injuries and further dangers.
- ⇒ Observe the warnings on the device and in the operating instructions.



The following special safety symbols are used in respective passages in these operating instructions:

Mandatory action symbols			
Symbol	Explanation	Symbol	Explanation
	Observe information.		Pull out plug: after use, before opening and especially before cleaning, maintenance and repair work.
	Read and follow the instructions for use.		Wear respirator mask.
	Wear hearing and eye protection.		Wear gloves.
	Wear safety shoes.		

Warning signs			
Symbol	Explanation	Symbol	Explanation
	Generic warning.		Warning of dangerous electrical voltage.
	Warning of rotating tools.		

Prohibition signs			
Symbol	Explanation	Symbol	Explanation
	Protect against weather and wetness. Do not clean with water or other liquids.		Only set up and operate the machine on a firm, stable and even surface.

For your safety

The mixer model **AOX 650 / AOX 650.T** has been developed, produced and inspected in adherence to the essential safety requirements. However, residual risks nevertheless remain.



- For this reason, read the operating instructions prior to operating the machine.
- Store the operating instructions readily available at the machine.
- Pass on the operating instructions to any subsequent owners.
- Despite all precautions taken, non-obvious residual risks may exist. Residual risks can be reduced by observing the safety information, the intended use and the operating instructions as a whole.

Safety information

Read and observe this information prior to using the device! Non-observance can result in direct consequences for your health and physical integrity, as well as for the health and physical integrity of third parties.



- The machine may only be used and maintained by persons familiar with the operating instructions and the applicable regulations regarding occupational safety and accident prevention.
- The machine may only be used in proper technical conditions as well as for the intended purpose and in a safety- and danger-conscious manner. In particular, damage that can impact the safety must be corrected immediately.
- Wear tight-fitting clothes, safety shoes and no jewellery during work. Wear a hairnet for long hair.
- Wear a dust mask to protect against dust that develops in the vicinity of the mixer.
- Wear hearing protectors while working with the machine.
- Ensure that the device is standing stably – only operate on a firm, stable and even surface.
- Observe the electrical regulation at the usage location when setting up the device.
- Make sure that the voltage indicated on the rating plate matches the mains voltage.
- Always pull the mains plug during non-operation, maintenance or when replacing the mixing tool.
- Only use approved cables that are labelled accordingly when working outside.
- Do not disconnect the plug from the socket by pulling on the cord. Protect the cable against heat, oil and sharp edges.
- Always connect devices to an operating current of 30 mA or less via a residual current device (RCD).
- If a cable reel is used, the cable must be fully unwound. There is a risk of a cable fire due to heating. A loss of power may occur as well, leading to the undervoltage protection being triggered.
- Keep the device away from rain and moisture. Water penetration into an electric device increases the risk of an electric shock.
- Do not operate the device in rooms with flammable atmosphere. Risk of explosion! Do not mix any solvent-containing substances with a flash point below 70°F / 21 °C.
- Do not reach with your hand or objects into the mixing vessel during ongoing mixing operation. Risk of crushing!
- When opening the lid, do not reach into the mixing tool.
- Only operate the machine with the mixing vessel installed.
- Only use the original Collomix mixing vessel.
- Do not reach with your hand or objects into the mixing vessel during ongoing mixing operation. Risk of crushing!
- Wait, until the device and/or tool comes to a complete standstill. Rotating tools can get stuck and cause injuries or damage.
- Acute risk of accidents and injuries if the safety functions are disabled on purpose.
- Do not clean the machine with water or any other liquids – risk of electric shock!
- Electrical operating equipment must be subjected to a regular inspection by an electrician.
- Only remove material samples with the device at a standstill.



RCD 30mA



Intended use

CAUTION



Danger of injury from overfilling the bucket

- Material can slosh out of an overfilled bucket and lead to injuries.
⇒ Adhere to the maximum filling quantities.
⇒ Wear personal protective equipment (esp. safety goggles and closed work clothing).

The model **AOX650 / AOX650T** is a mixing device for mixing:



- Mineral mortar, plasters and adhesives
- Low-viscose, self-levelling floor coatings
- Cement-based levelling compounds and floating screed
- Epoxy resin mortar
- Small amounts of concrete or substances that are similar to concrete with low aggregate levels
- Liquid plastics

as they are used in the construction industry.

Different mixing tools can be used for specific materials:

KR mixing tool: various mortars, screed, concrete (-8 mm), chalk/gypsum plasters, lightweight masonry mortar, epoxy resin mortar, adhesive mortar

DLX mixing tool: Thin-bed mortars (for bricks), filler and levelling compounds, bonding agents, coatings

The recommended mixing capacity amounts to a maximum of 50 kg per mixture/max. 2 sacks (material-dependent). It is recommended to test the suitability and necessary material mixing time when you start the work.

Observe the processing information of the material manufacturer regarding the used material.

Any other use of the machine or any use beyond this scope is considered unintended and thus improper. Safety and its protection can be impacted in this case. Collomix GmbH shall not be liable for any resulting damage.

Intended use also includes:

- Compliance with all information in the operating instructions.
- Compliance with all safety information.
- Compliance with inspection and maintenance work.

The user shall be liable for damage resulting from non-intended use.

Keep to permitted operating times

According to the German Machine Noise Protection Act of the BImSchV (Federal Emission Control Act) of September 2002, cement mixers may not be put into operation in pure, general and special residential areas, small residential estate areas, special areas for leisure, spa and clinic areas and areas for tourist accommodation or on the grounds of hospitals and nursing homes on Sundays or public holidays, or on working days from 8 pm to 7 am.



- Please also obey the regional noise protection regulations

Foreseeable misuse

Reasonably foreseeable misuse that could result in danger for the user, third parties or the machine includes:

- Use of the machine and its accessories contrary to the intended use.
- Transportation of the non-cranable machine with a crane.
- Operation of the machine using a mixing tool different from the specified one.
- Use of damaged containers or containers not suitable for the mixer.
- Mixing plastic or highly viscose materials.
- The mixing of flammable or explosive substances.
- Mixing of electrically conducting substances.
- Mixing of chemically aggressive substances and corrosive liquids.
- Mixing of food items.
- Operation of the machine outside of the physical usage limits described in chapter "Intended use".
- Operation of the machine without the intended mixing bucket or with an unsuitable container.
- Operation of the machine in the maintenance position (drive unit folded up).
- Bucket overfilling.
- Use of water jets or high-pressure cleaners for cleaning.
- Changes to the mixer as well as add-ons or retrofits without previous agreement with Collomix GmbH.
- Operation of the machine contrary to the provisions of the operating instructions with respect to safety information, installation, operation, maintenance, setup and malfunctions.
- Bypassing or disabling of safety and protection devices of the machine.
- Operation of the machine in the case/with obvious malfunctions.
- Repair, cleaning and maintenance work without disconnecting the mixer from the power supply.



Mode of operation

The machine consists of a mobile base frame with a built-in turntable in the lower area.

In the upper area there is a swivel arm with drive unit for the mixing tool.

The drive unit can be equipped with one of the selected mixing tools in the area of the mixing chamber.

Attached to the turntable is a holding ring into which a precisely fitting original Collomix bucket is inserted.

After the bucket is filled with the selected material, the turntable starts to rotate when the machine is switched on. In addition, also heed the information provided by the material manufacturers and check the mix quality using a test mixture.

When the machine arm is swung down, the stirrer dips into the material and starts the mixing process.

After completion of the mixing process (machine switched off), the bucket can be lifted out of the machine and transported to the place of use by means of a special transport trolley.

Transport information

DANGER

Danger of death due to dangerous electrical voltage

- Moisture ingress into the machine can lead to faulty electrical parts and thus to a danger of injuries (electric shock)!
- ⇒ Protect the machine against the weather and wetness during transport, storage and operation.



The device is supplied ready-to-use in cardboard packaging.

The weight of the machine when empty is 51 kg.

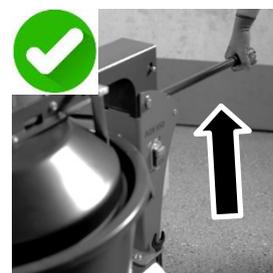
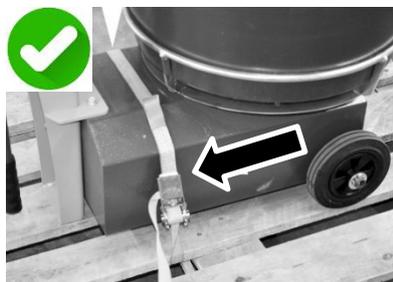
The device can be moved on even surfaces by one person using the folding handle.

When transporting in a vehicle, the machine must always be adequately secured with a transport belt or similar. Unsecured loading can lead to serious harm to persons and property.

Attach the belt only as shown in the pictures.

The machine must be protected against the weather and wetness during transport, storage and operation.

The belt eyelet is not suitable for transport by crane.



Commissioning

DANGER

Danger of death due to dangerous electrical voltage

- Parts in a faulty condition that have become live can cause injuries if touched!
- ⇒ The supply socket must possess an RCD circuit breaker.



RCD 30mA

WARNING

Danger due to movement (tipping over) of the machine

- Injuries due to tipping over or movement of the machine.
- ⇒ Only set up and operate the machine on a firm, stable and even surface.



Before commissioning, the machine and the power cable must always be inspected for damage.
Check whether the machine is standing on a firm, stable and even surface. Danger of tipping over!



Electrical installation

Check whether the voltage specified on the type plate corresponds to the mains voltage.

Connect the device plug on the machine to the supply socket via a suitable extension cable (type H07 RN-F, min. \varnothing 1.5²). **This socket must possess a residual current device (RCD).** Lay the mains connection cable in such a way that tripping or getting caught are prevented.



Mains plug

Connection of dust extraction system

In order to substantially reduce dust pollution during the pouring in of the material and at the start of the mixing process, we recommend connecting a dust catcher to the connection nozzle (\varnothing 35 mm) of the lid. The dust catcher used must correspond to the dust class "M" (fine filter system) in order to hold back the dust appropriately.



Deduster
connection

Mixing tool

Check whether the mixing tool has been correctly installed.

Operation

DANGER

Danger of injury from the moving mixing tool when machine lid opened

Danger of injury from damaged or defective machine parts

- Moving mixing tool can cause injuries if touched!
 - Moving mixing tool can catch clothing and cause injuries!
 - Defective parts can lead to malfunctioning and injuries.
- ⇒ Do not reach into the mixing chamber during the opening of the machine lid!
- ⇒ Do not reach into the mixing tool during opening!
- ⇒ Wear close-fitting work clothing!
- ⇒ People with long hair must use a hairnet!
- ⇒ Have damaged machine parts replaced immediately with original replacement parts by suitable skilled personnel!



WARNING

Danger of injury from turning mixing tool

- Rotating mixing tool can cause injuries if touched!
- ⇒ The machine must only be used with the mixing bucket installed!
- ⇒ During mixing, do not reach into the mixing chamber or make use of tools there!

CAUTION

Danger of injury due to high drum weight

Danger of injury due to moving lid / articulated joint

Danger of injury due to rotation of the bucket

- Lifting out the ready-mixed bucket can lead to disorders of the body's locomotor system.
 - The unexpected lowering of the lid can lead to injuries.
 - Reaching into the articulated joint during the closing process can lead to injuries.
 - Having your hands in the area of the edge scraper during rotation can lead to injuries.
 - The rotating bucket can catch objects and cause injuries.
- ⇒ Use the appropriate transport trolley (see Accessories) for lifting the bucket out of the machine and for transportation.
- ⇒ Operate the lid by using the handle attached to the swivel arm.
- ⇒ Snap the lid in an opened position securely into place in the stop position.
- ⇒ Do not reach into the swivelling range or the articulated joint while the lid is being opened or closed.
- ⇒ Snap the lid in an opened position securely into place in the stop position.
- ⇒ Do not touch any rotating parts during the mixing process.
- ⇒ Wear close-fitting clothing and no jewellery. If you have long hair, wear a hairnet.

Version **AOX 650:**

- > When the device is in an open state, fill the mixing bucket with water and the mixing material.
- > Press the **green START button "I"**– the mixing bucket will start to turn.
- > Fold down the swivel arm with the mixing tool and submerge it in the mix; the mixing tool starts. Through the rotation of the bucket, the mix is guided to the mixing tool.
- > Press the **red OFF button "O"** to terminate the mixing process. The machine stops.
- > Alternatively: The mixing tool drive is switched off as soon as the swivel arm is lifted. The bucket continues to turn. Switch it off via the red STOP button "O".
- > The bucket with the ready-mixed material can be lifted out of the machine by means of a transport trolley (see Accessories) and transported on it to the application site. Do not lift the full tub out of the machine on your own.
- > Change the mixing tool with an open-end wrench on the hexagonal holding fixture of the tool and position on the agitator shaft and remove.
- > The recommended fill level of the mixer is dependent on the density and viscosity of the material.
- > A test mixture is recommended in individual cases.



ON/OFF switch



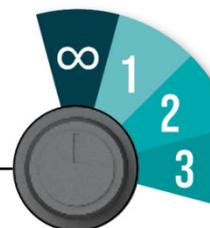
Replace the mixing tool

Version **AOX 650.T:**

In the version T, an additional time selector switch is available to the user.

This rotary switch allows for the selection of one out of four pre-programmed time programmes before the start of the mixing process:

1	Time programme 1: Mixing time 1 min.
2	Time programme 2: Mixing time 2 min.
3	Time programme 3: Mixing time 3 min.
∞	Time programme 4: Continuous operation



Troubleshooting

The machine is fitted with an undervoltage trigger. If it triggers, the machine is stopped. This may occur due to the following reasons:

- Voltage drop in the mains supply
- Supply cable too long
- Power supply disconnected

Restart after the malfunction is corrected.

The thermal circuit breaker on the motor switches off if the bucket drive is overloaded due to an excess of mixing material or if the mix is too viscous. Reduce the amount of mixing material and allow the motor to cool down. The start again.

If the mixing tool motor switches itself off, check the length of the carbon brushes. They switch themselves off automatically. Check the carbon brushes for ease of movement and clean, if required.



Care and maintenance

DANGER

Danger of death due to dangerous electrical voltage

- Moisture ingress into the machine can lead to faulty electrical parts and thus to a danger of injuries (electric shock)!
- ⇒ Never clean the machine using a hose or a high-pressure cleaner



WARNING

Danger due to unexpected movements of the machine

- Injuries due to an unexpected starting of the mixer during cleaning or maintenance
- ⇒ Before all maintenance and cleaning work, disconnect the mixer from the electricity supply by pulling out the mains plug



The mixer must always be disconnected from the power supply by pulling the mains plug prior to any maintenance and cleaning work.

Clean the machine immediately after use. Never clean with running water. Placing some wet sand in a bucket can help clean the mixing tool. Allow to run briefly and the mixing tool will be clean.

Ensure the machine and control elements are kept clean and fully functional. Regularly grease moveable parts with ESSO EP 2 or Mobilux EP 2.

Replace damaged or bent machine parts.

The ventilation openings on the mixing tool drive must be kept clean and clear to ensure sufficient cooling. Blocked ventilation openings will lead to the destruction of the device.

The mixing tool drive has carbon brushes that switch off automatically. The machine switches off when the minimum length is reached. Ensure carbon brushes are replaced by a qualified electrician.

Repairs or functional faults to the electric system must only be carried out by authorised workshops.

Only use the original mixing bucket from Collomix, item no. 60403, as a replacement for worn-out mixing buckets. Correct functioning is only guaranteed with this bucket.



Repair

DANGER

Danger of death due to dangerous electrical voltage

- Live parts can cause injuries if touched!
- ⇒ Never open coverings or safety devices of the machine.
- ⇒ Repairs must be carried out exclusively by trained skilled personnel.
- ⇒ After completion of a repair, the proper condition of all safety devices and electrical equipment must be checked and documented.



Have repairs on the electrical system only performed by expert personnel or Collomix Factory Service.

Only use original Collomix accessories and spare parts.

Do not reconstruct, change or remove safety-relevant parts!

Additional add-ons may not impact safety and must be approved by the manufacturer.

Disposal

The device, accessories and packaging should be disposed of in an environmentally friendly way. Do not dispose of in household waste.

Electric devices do not belong in the household waste. Non-functional equipment can be recycled at public collection centres for electrical waste.



Warranty

The manufacturer grants a 24 months warranty covering manufacturing and material defects for this device. Please enclose proof of purchase with a warranty claim.

Any warranty and liability claims are excluded in the case of personal injuries and/or material damage, if they are caused by one or several of the following causes:

- Unintended use of the machine
- Improper commissioning, operation and maintenance of the machine
- Damage due to excessive contamination and/or insufficient cleaning.
- Unauthorised structural changes of the machine
- Improperly performed repairs and/or use of third-party spare parts.



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