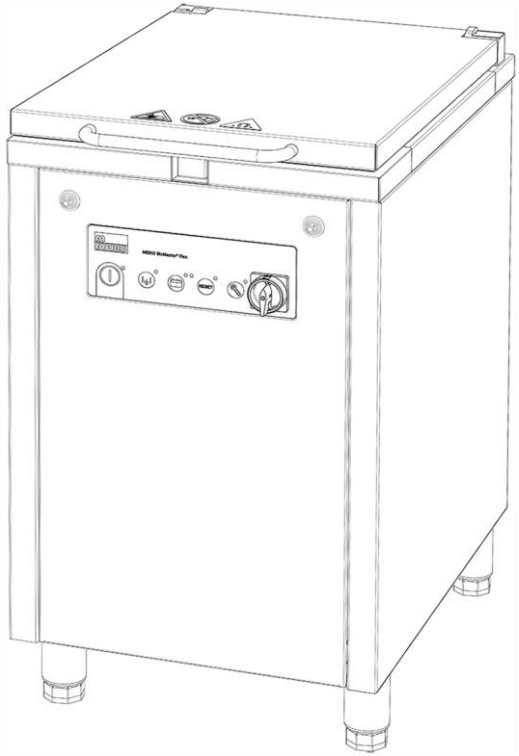
BioMaster® Flex



EN

For the types in the series:
M013FWCS10M2-10

Before using the machine, read carefully the operating instructions, the product description and the safety instructions.

9023347 / Valid from: 2023-12 / Update: 2026-03

Contents

1 Notes on the operating instructions

The operating instructions as well as the applicable documents must be read before the first commissioning, kept for later use, and must be accessible to the operator at all times. Failure to observe the operating instructions may result in damage to persons and property.

These operating instructions can be downloaded via the following address: **www.meiko.com** or https://partnernet.meiko-global.com.

1.1 Product identification

This manual applies to the following machine types:

BioMaster® Flex

M013FWCS10M2-10

1.2 Delivery contents

The delivery contents include:

- BioMaster® Flex
- Unlocking key grinder
- Control cabinet key, universal
- Documentation, for details see Related documents

1.3 Related documents

In addition to these operating instructions, there are other documents that are available:

Operator/operating company (included in delivery contents)	
EC/EU declaration of conformity	Assembly plan (in advance)
Wiring diagram	Spare parts list
Quick guide	
Authorised service technician	
Service manual	

1.4 Presentation conventions

1.4.1 Warnings

⚠ DANGER – indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.

⚠ WARNING – indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death**.**

⚠ CAUTION – indicates a possible hazardous situation which, if not avoided, could result in minor or moderate injury or damage to property**.**

1.4.2 Notices on use

▶ **Note** – indicates useful and important information about the product or its use.

1.4.3 Award elements

Description of the markup elements used in this document:

- 🛠 Required tool for subsequent action instruction.
- ▶ Requirement to be met for subsequent action instruction.
1. Successive action steps.
- ↳ Interim result for individual action steps.
- ✓ Final result of an action instruction.
- • A bullet point designates a list.
- [ ] Terms in square brackets indicate keys.
- (1) Position numbers shown in parentheses in the text refer to position numbers in illustrations.

1.4.4 Symbols

Read the operating instructions

1.4.5 Illustrations

The illustrations contained in this document are not necessarily true to the original or to scale. The illustration may deviate from the original, e.g. due to modifications to the product, but without diminishing the facts or comprehensibility.

2 Declaration of conformity

This section reproduces the content of the EC/EU Declaration of Conformity for the product. The signed EC/EU Declaration of Conformity with serial number is enclosed with the product.

We hereby declare under our sole responsibility the conformity of the product with the essential requirements of this EC Directive:

- 2006/42/EC Machinery Directive, OJEU L157/24

Furthermore, we declare the conformity of the product with the following EU directives:

- 2014/30/EU Directive on Electromagnetic Compatibility, OJEU L96/79, 29/03/2014
- 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, OJEU L174/88, 01/07/2011
- The safety objectives set out in the Low Voltage Directive 2014/35/EU *(OJEU L96/357, 29/03/2014)* were met in accordance with Annex I, No. 1.5.1 of the Machinery Directive.

3 Safety

3.1 Intended use

The infeed station is intended exclusively for grinding loose raw organic waste and food waste of the kind that is usually generated in commercial kitchens, hotels, food service and communal catering.

The infeed station may only be operated commercially and only in conjunction with a MEIKO food waste treatment system.

The infeed station may only be operated by trained personnel.

Only operate the infeed station when it is in perfect working order.

Only operate the infeed station within the limits specified in the ambient conditions.

The infeed station is not authorised for operation in a potentially explosive environment.

Technical modifications or conversions are not permitted.

3.2 Foreseeable misuse

The following products and objects must not be placed in the disposal system:

- Food waste, waste and bones with a grain size in excess of 80 mm
- Food waste and waste with temperatures above 40°C in larger quantities of more than 10 litres
- Cutlery and dishes
- Parts made of plastic, metal, glass, porcelain, etc.
- Fats that harden
- Textiles, oven cloths or steel sponges
- Living creatures
- Service water
- Chemicals

3.3 Safety information

The product has been manufactured in line with the state of the art and the established safety regulations and standards. Nevertheless, its use may result in functional hazards to the life and limb of the user or third parties. Therefore, read and observe the following safety notices before using the product.

Strong permanent magnet

Strong permanent magnets are installed in this product. They can affect the function of pacemakers and implanted defibrillators. A magnetic pulse could switch the pacemaker to a different mode. A defibrillator may no longer function.

- Observe safety signs.
- If you have a pacemaker or an implanted defibrillator, keep a minimum distance of 0.6 metres.
- Warn wearers of such active implants if necessary.

Electric shock due to live parts!

Live parts are freely accessible when the housing parts are open. Touching live parts can lead to serious electric shocks and injure or kill people.

- Have work on the electrical system carried out by MEIKO authorised service technicians or a qualified specialist workshop.
- Before opening housing parts, always switch off the main switch and secure it against being switched back on. CAUTION! Even when the main switch is turned off, upstream electrical circuits may still be under voltage.
- Have damaged insulation and components of the electrical system repaired immediately.
- Have damaged power cables replaced immediately.
- When connecting with a mains plug, the mains plug must always be freely accessible.

Risk of slipping due to leakage of liquids!

Liquids may leak onto the floor during operation. Slip hazard!

- Be careful when liquids accumulate.
- Always wear suitable safety shoes.

Contact with food waste and kitchen waste!

When working with or on the machine/system, contact with food waste and kitchen waste cannot be avoided, depending on the phase of life. Missing or unsuitable personal protective equipment increases the risk of health effects to people.

- Wear protective gloves when in direct contact with food waste and kitchen waste or when working where contact with food waste and kitchen waste cannot be ruled out.
- Only use personal protective equipment that is in proper condition and provides effective protection.
- Adapt personal protective equipment to the person, e.g. size.

Wear personal protective equipment!

Missing or unsuitable personal protective equipment increases the risk of health effects and injury to people.

- Define and provide personal protective equipment for the respective application.
- Only use personal protective equipment that is in proper condition and provides effective protection.
- Adapt personal protective equipment to the person, e.g. size.
- Personal protective equipment includes, for example
  - Work gloves
  - Safety shoes
  - Safety glasses
  - Protective clothing

Make sure safety labels and signs remain legible!

Safety labels and signs on the machine provide warning of hazards at danger points and are important components of the machine's safety equipment. A lack of safety labels and signs increases the risk of serious and fatal injuries to people.

- Clean soiled safety labels and signs.
- Damaged and unrecognisable safety labels and signs must be replaced immediately.

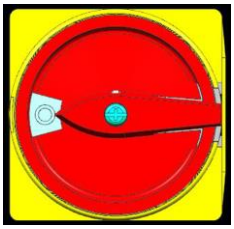
Make sure protective devices remain functional!

If protective devices are missing or damaged, people can be seriously injured or killed.

- Replace damaged protective devices immediately.
- If the protective devices are damaged, shut down the machine.
- Never tamper with, bypass or override protective devices.
- Assemble dismantled protective devices and other parts before commissioning and move them into the protective position.

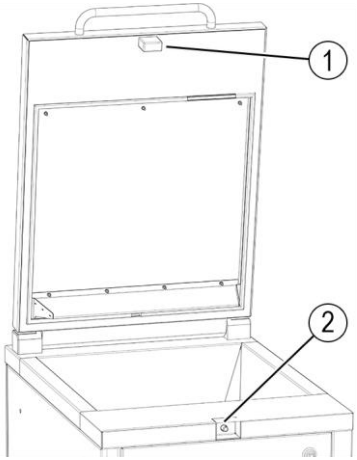
3.4 Safety devices

3.4.1 Emergency off function



The main switch is designed as an emergency off. It interrupts the power supply to the machine and can be secured against being switched on again.

The main switch must be easily accessible and free of obstacles at all times.



The lid is available as a version of the non-separating protective device with a guard locking.

1 Locking tab
2 Locking bolt

Lid locked:

- Machine switched off
- Machine switched on and cycle active

Lid unlocked:

- Machine switched on, no cycle active

3.5 Safety labels and signs

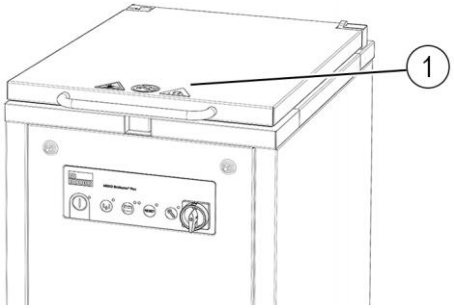
3.5.1 Description of the safety symbols used

This section describes the safety symbols on the safety labels affixed to the product.

	Warning of electrical voltage
	Warning of hot surfaces
	Warning of hand injuries
	Magnetic field warning
	Prohibited for people with pacemakers
	Read instructions

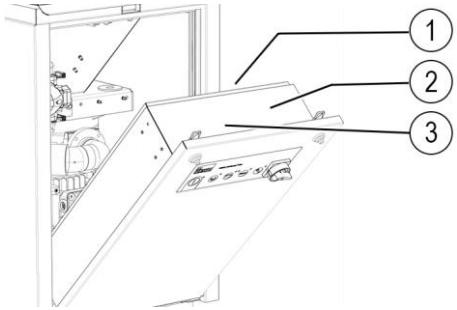
3.5.2 Position of the safety labels

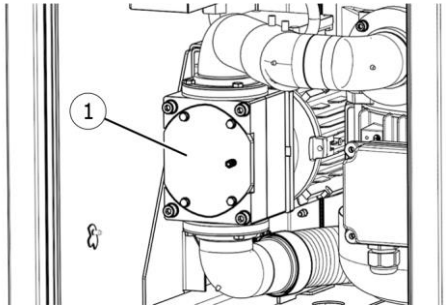
Safety labels on the lid



1



Safety labels on the control box		
	1	 Sign: **ATTENTION! Even when the main switch is switched off under voltage**
	2	
	3	QR code for downloading operating instructions

Safety labels on the impeller pump		
	1	

3.6 What to do in the event of an emergency

In dangerous situations, switch off the emergency off to disconnect the power supply.

3.7 Requirements for the personnel

Commissioning, instructions, repairs, maintenance, assembly and installation of or on MEIKO products may only be carried out/authorised by authorised service partners.

During operation it must be ensured that:

- Only adequately trained and instructed personnel are allowed to work on the machine.
- Personnel responsibilities for operation, maintenance and repairs must be clearly defined.
- Any personnel undergoing training are only allowed to work on the machine under the supervision of an experienced person.

Qualified personnel as defined by this document are persons who:

- Over 14 years of age.
- Due to their training, experience and instruction are able to perform the required activities.
- Are authorised to perform the required activities by the person responsible for safety of the system.
- Have read and understood the operating instructions and corresponding safety information and will follow them.

The required qualifications for performing specific work at the machine are determined by MEIKO:

Personnel **Activity**	**Trained operating staff**	**In-house technician authorised by MEIKO**	**Service technician authorised by MEIKO**
Installation/ assembly			✓
Commissioning			✓
Operation, use	✓	✓	✓
Cleaning	✓	✓	✓
Checking safety devices		✓	✓

Troubleshooting	✓	✓	✓
Error clearance, mechanical	✓	✓	✓
Error clearance, electrical		✓*	✓
Maintenance		✓	✓
Repairs		✓	✓

* with training as an electrician

Note

The instructions must be acknowledged in writing.

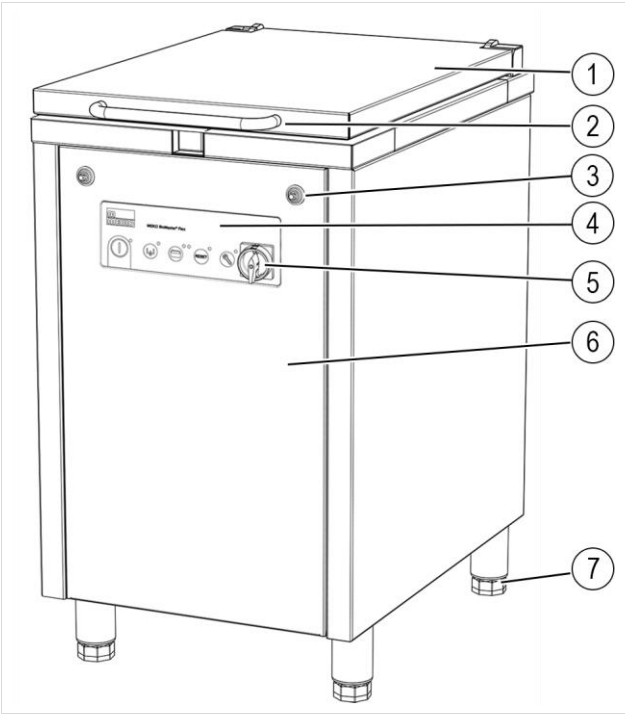
4 Product description

4.1 Functional description

The BioMaster® grinds kitchen waste and food waste with the addition of process water and converts it into homogenised biomass for recycling.

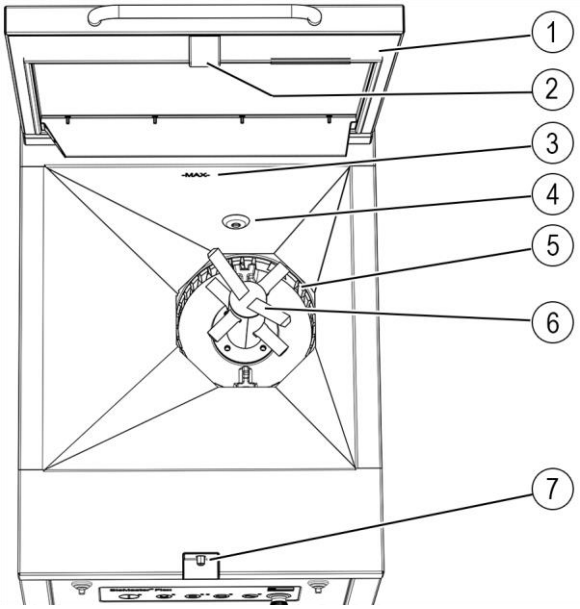
The biomass is pumped out of the BioMaster® and transported via a closed pipe system to a collection tank.

4.2 Overview illustration



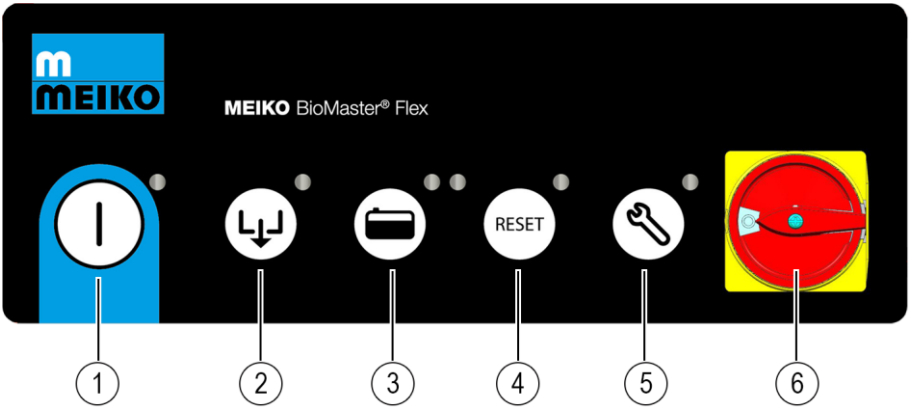
1 Lid
2 Handle
3 Service flap lock
4 Membrane keypad
5 Main switch, designed as emergency off
6 Service flap to the technical area, with control box on the inside
7 Adjustable machine foot (4x)

4.3 Loading chute



1 Lid
2 Locking tab
3 Maximum fill level
4 Process water nozzle
5 Grinder
6 Pre-grinding unit (option)
7 Locking bolt

4.4 Membrane key pad



1 **[Start]** button:
- Start/stop homogenisation cycle.
- LED (green) is off when the lid is open.
- LED flashes cyclically as soon as the lid is closed.
- LED lights up as soon as the grinding cycle starts.

2 **[Drain]** button:
- Pumping contents of loading chute
- LED (green) lights up when the pump is in operation.

3 **[Level indicator]** button:
- LED (orange) flashes when the fill level of the collection tank reaches 80%. The LED lights up continuously after confirmation with the button, at fill level >80 %.
- LED (red) lights up when the collection tank is full. The BioMaster® can no longer be started. The collection tank must be emptied.
- LED (red) flashes if no enable is provided by the tank control unit.

4 **[Reset]** button/fault LED:
- Confirm rectified fault.
- LED (red) flashes slowly (1 Hz) in the event of technical faults.
- LED flashes quickly (5 Hz) if there is a fault in the water supply.

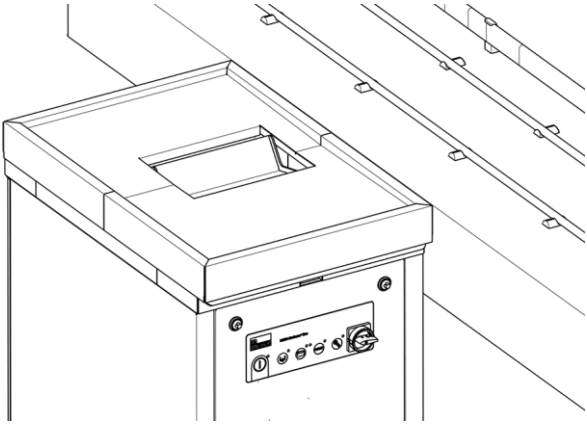
5 **[Service]** button:
- LED (orange) flashes when maintenance is due. Arrange a service technician visit. The status can be confirmed with the button.
- Once the maximum number of cycles has been reached, the LED can no longer be confirmed. It flashes permanently until the maintenance counter is reset.

6 Main switch:
- Designed as an emergency off.

4.5 Options

4.5.1 DirectFeed lid

The DirectFeed lid version is optionally available in three sizes for the BioMaster® Flex, depending on the respective installation situation.

BioMaster® Flex DirectFeed on the tray conveyor belt (example)


DirectFeed lid conversion kit, installation variants	**Item no.**
• Installation between flight type dishwashing machine with passing width 570 mm and tray conveyor belt • Free-standing installation • Installation on the tray conveyor belt	9863169
• Installation between flight type dishwashing machine with passing width 750 mm and tray conveyor belt	9863191
• Installation between flight type dishwashing machine with passing width 980 mm and tray conveyor belt	9863192

5 Technical data

5.1 Dimensions

Dimensions			
Dimensions (L x W x H)	mm	700 x 500 x 870–930	
Weight	kg	157	
Gross volume loading chute	l	28	
Net volume loading chute (DirectFeed)	l	11	
Mains connection			
Mains connection	V/Hz	See rating plate	
Current consumption	A		
Power consumption	kW		
Power			
Grinder motor power	kW	3	
Max. grinding capacity (batch mode)	kg/h	800	
Max. grinding capacity (DirectFeed option)	Kg/h	285	
Water supply			
Cold water connection		¾″ external thread	
Addition of process water		Automatic	
Noise emission			
		Idle	Load
Sound pressure level L_{pA}	db (A)	65	67
Uncertainty $_{KpA}$	db (A)	3	3
Other			
Protection class		IPX5	
Machine housing material		1.4301	

5.2 Ambient conditions

Ambient conditions	
Operating temperature	5 – 40°C
Relative humidity	< 90 %
Storage temperature	-5 – 55°C
Maximum height of the installation site above sea level	2000 m

5.3 Requirements to the electrical connection

For Australia and New Zealand only:
All work carried out must be in accordance with AS/NZS 3000!

The following on-site requirements for the electrical connection must be met:

- CEE socket, 400 V / 50 Hz / 16 A / 5 p / 6 h / IP 67 degree of protection
- Back-up fuse max. 16 A/tripping characteristic K or C
- Protection against category 2 overvoltage (SPD 2)
- Recommended residual current device: RCD type A 30 mA
- Clockwise rotating field
- Mains impedance $Z_{max} \leq 0.2062\ \Omega$
- Max. Short circuit delay time when turning off 10 kA

5.4 Requirements for the fresh water connection

Fresh water connection	
Air gap	Type AB, according to EN 1717 and EN 61770
Permissible water pressure	200 – 1000 kPa (2 – 10 bar)
Permissible water hardness	0 – 14 °dH
Temperature range for fresh water	5 – 30 °C
Fine filter	≤100 µm

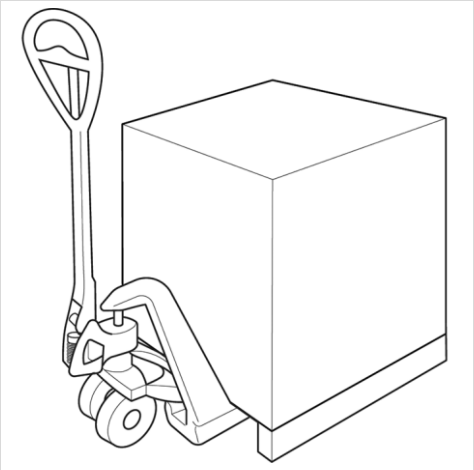
For Australia and New Zealand only:
All work carried out must be in accordance with AS/NZS 3500.1!

- Fresh water connections must comply with the locally applicable regulations (e.g. DIN EN 1717).
- Install a shut-off valve locally in each fresh water supply line; the device must be easily accessible for the operating personnel.
- Only connect the machine using suitable hoses and seals. Only use hoses if in an intact condition!
- When replacing an old machine with a new one, make sure that the existing feed hose is exchanged for the new feed hose supplied with the machine.
- From a biological perspective, the fresh water must be of drinking water quality. This also applies to treated water.

6 Transport

⚠ CAUTION - Risk of crushing due to the machine tipping over!

- Only qualified personnel may carry out transport works.
- Please observe the safety information on the packaging.
- Always transport the machine on a wooden frame only.
- Wear safety shoes.



The packaging is specifically designed to allow the appliances to be moved safely and securely using a pallet jack. For safe transport, the product is supported by a special square timber frame.

- Execute transport carefully.
- Always transport the product on the supplied wooden frame.
- Observe transport instructions on the packaging.
- Do not unpack the product until it has been transported.

6.1 Unpacking

⚠ **CAUTION - Risk of crushing due to the machine tipping over!**

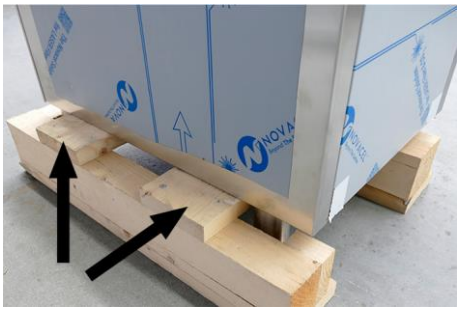
- Only qualified personnel may carry out transport works.
- Please observe the safety information on the packaging.
- Always transport the machine on a wooden frame only.
- Wear safety shoes.

🛠 Cordless screwdriver with inserts

🛠 Torx bit for cordless screwdriver, TX25

The machine is delivered ex works on a special transport pallet. One person can unpack the machine independently and place it on the floor from the pallet. A lifting device is not required for unpacking.

Machine on transport pallet

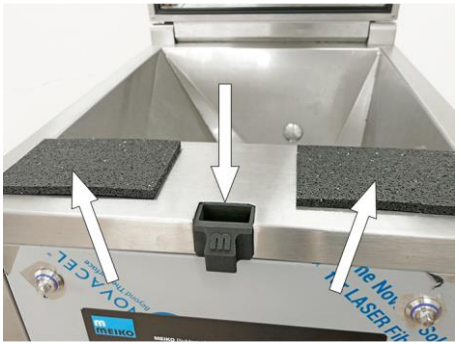


1. Remove 2x Torx screws from above (arrows).

2. Loosen the metal bracket from the lower square timber. To do this, remove 2x horizontal Torx screws. The brackets remain on the boards.

3. Tilt the machine towards the protruding boards and pull the square timber out sideways..

4. Tilt the machine in the other direction and pull out the boards and square timber.



5. Remove the two supports and dispose of them in the residual waste.
6. Remove the protective cover from the lid lock and store it. It serves as an mounting aid during service work.

✓ The machine has been unpacked.

6.2 Disposal of packaging materials

All the packaging materials are recyclable. The following materials are used:

- Square timber frame
- Plastic sheeting (PE film)
- Foam material
- Cardboard packaging (edge protection)
- Packaging strap (steel strip)
- Packaging strap (plastic (PP)
- If needed, transport safety bracket (stainless steel)

7 Assembly

Note

Assembly and installation may be performed only by a service technician authorised by MEIKO.

⚠ DANGER - Danger to life from electric shock if the main switch is switched off!

When the main switch is off, electrical circuits may still have voltage, such as cables upstream of the main switch and the electronic interfaces to connected machines or systems. Contact with live electrical parts may result in serious injury or death.

- Work on the electrical system may only be carried out by a qualified electrician.
- Before working on the electrical system, disconnect the machine from the power supply and secure it against being switched back on.
- Check the wiring diagram before working on the electrical system.

▶ The BioMaster® is unpacked and at its installation site.

1. Using a flat spanner, adjust the four machine feet until the machine is level and aligned in height.
2. Connect transport pipe DN56 to the tank system.

CAUTION! Ensure kink-free installation and maintain a minimum radius of 45°.

3. Connect the fresh water supply.
4. Route the protective conductor according to the circuit diagram and connect in the control cabinet.
5. Connect the interface to the tank system in the control box.
6. Connect BioMaster® to the electrical mains using the plug for the mains connection cable.

✓ The BioMaster® has been installed and can be put into operation. Before switching on for the first time, check whether the power supply on site runs a clockwise rotating field.

8 Commissioning

Note

Instruction and initial commissioning may only be performed by an authorised service technician! The operator must not use the product before completing training.

Note

Commissioning after temporary decommissioning may only be carried out by an instructed in-house technician or a service technician authorised by MEIKO.

► The machine has been decommissioned.

1. Open the on-site water tap.
2. Plug in the mains plug.
3. Switch on the machine at the main switch.
4. Check that all safety devices are working correctly.
5. Start the empty cycle and then check the machine for leaks.

✓ The machine has been commissioned.

9 Operation/use

Note

Before starting operation, the machine must be checked daily for external damage and the safety signs must be checked to make sure they are present and legible.

9.1 Approved food waste

What may be disposed of in the system?

- Food waste
- Raw organic waste
- Fully liquid deep-frying oil

Mix expanding food and hard food waste with normal wet food waste:

- Cereals
- Pasta
- Sugar
- Flour
- Thick fruit peel, e.g. lemons, bananas
- Fish skins, mussels, shellfish and crustaceans
- Poultry bones (long bones)
- Used coffee grounds

What must not be disposed of in the system?

- Warm food waste > 40°C
- Stone fruit and fruit with large seeds
- Bones (except poultry bones)
- Objects made of wood, metal or plastic
- Textiles and paper
- Detergents
- Any inorganic or chemical substances

9.2 Switching on the machine

► The machine has been connected and commissioned.

1. Switch on the machine at the main switch.

✓ The machine is ready to start. The LED on the [Start] button flashes.

9.3 Open the lid

⚠ CAUTION - Risk of crushing at the rear lid gap!

When opening the lid, there is a risk of crushing hands and fingers at the rear lid gap.

- Only open the lid when nobody has their hands in the area of the lid gap.
- Do not reach into the lid gap.

The locking of the lid depends on the status of the machine:

Machine status	**Lid lock**
• Machine switched off.	locked
• Machine is switched on, • Homogenisation cycle active, • The **[Start]** button lights up.	locked
• Machine is switched on, • Homogenisation cycle active, • **[Start]** button flashing.	unlocked

► The lid is unlocked.

1. Open the lid as far as it will go.

✓ The lid is open and remains in this position.

9.4 Close lid.

⚠ CAUTION – Risk of crushing when closing the lid!

- Always operate the lid using the handle.
- Do not reach under the hinged lid.

► The lid is in open position.

1. Close the lid carefully.

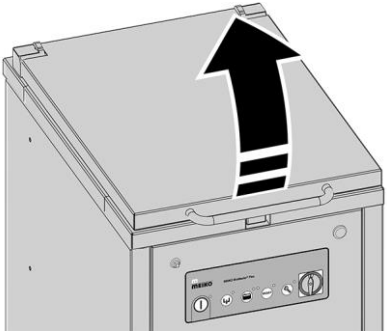
✓ The lid is locked as soon as a homogenisation cycle is started or the machine is switched off.

9.5 Adding food waste

⚠ CAUTION – Material damage due to foreign objects in the loading chute!

Foreign objects in the loading chute can cause serious damage to the machine during operation.

- Only place approved food waste in the loading chute.
- In the event of loud, rumbling or banging noises during the homogenisation process, immediately stop the machine.
- Check the chute contents and remove any foreign matter.



1. The LED on the **[Start]** button flashes.
2. Open the lid.

↳ The LED on the **[Start]** button goes out.

3. Add the food waste. Do not fill above the MAX mark!

✓ Food waste has been added.

CAUTION! The loading chute has a maximum capacity of 28 litres.

9.6 Starting the homogenisation cycle

The homogenisation cycle consists of repetitive steps:

- Shredding food waste using the grinder
- Process water supply
- Pumping out food waste
- Pause

► The lid is closed and locked.

1. Press the **[Start]** button.

✓ The homogenisation cycle is started. The lid remains locked during the cycle. The homogenisation cycle stops automatically after 120 seconds and then unlocks the lid. The cycle is finished.

9.7 Stop homogenisation cycle

A homogenisation cycle can be stopped at any time. When restarting, the cycle is started from the beginning.

► A homogenisation cycle is active.

1. Press the **[Start]** button.

✓ The homogenisation cycle is stopped.

9.8 Draining

⚠ CAUTION – Risk of crushing when closing the lid!

- Always operate the lid using the handle.
- Do not reach under the hinged lid.

Larger quantities of liquid, such as soup or water, can be pumped out without a homogenisation cycle.

► There is no food waste in the loading chute.

► The lid is unlocked.

1. Open the lid.
2. Add the liquid to the loading chute.

↳ Note the MAX mark in the loading chute!

3. Press and hold the **[Drain]** button.

✓ The pump pumps for a maximum of 10 seconds as long as the **[Drain]** button is pressed. By pressing the button again, the pump is restarted. The LED in the button lights up. After the button is released, the LED goes out.

9.9 Switch off the machine

► The machine is switched on.

1. Turn off the main switch.

✓ The machine is switched off.

Note

When the machine is disconnected from the power supply, the lid lock is automatically activated.

9.10 Assistance in case of malfunctions

The following faults can be remedied by the operating personnel or the in-house technician.

Fault	Possible cause	Remedy
The BioMaster® has no power.	Mains plug is not plugged in.	Plug in the mains plug.
	Main switch on site is turned off.	Turn on main switch on site.
	The main switch is turned off.	Turn on the main switch.
Homogenisation cycle cannot be started.	Collection tank is full, level indicator lights up red.	Perform visual inspection of fill level. Arrange for the tank to be drained. BioMaster® remains out of service.
	Fault LED flashing.	Correct fault.
	Lid is not properly closed. **[Start]** button not flashing.	Clean locking mechanism if necessary. Close lid. Press **[Reset]** button. **[Start]** button flashing when lid is closed.

Orange-coloured LED for collection tank level flashing.	Collection tank fill level = 80%.	Arrange for the tank to be drained soon. Press **[Tank]** button. LED lighting up orange continuously.
Red LED for collection tank level indicator lighting up red.	Collection tank fill level = 100%.	Perform visual inspection of fill level. Arrange for the tank to be drained. BioMaster® remains out of service.
Fault LED on **[Reset]** button flashing slowly (1 Hz).	Pump, grinder motor or control unit is overheated.	• Wait until the components have cooled down. • Press the **[Reset]** button.
	Grinder blocked or motor overloaded.	• Check chute contents for foreign matter. • Check using the unlocking key that the grinder can move freely. • Remove foreign matter.
	Lid not closed correctly.	Clean locking mechanism if necessary. Close lid. Press **[Reset]** button. **[Start]** button flashing when lid is closed.
	Impeller pump overloaded or blocked.	• The impeller pump or the pipework is blocked. • Contact Technical Service.
Fault LED on **[Reset]** button flashing quickly (5 Hz).	Lack of water supply.	Check: • Tap open? • Hose kinked or damaged? If not, then the solenoid valve or the level switch may be defective. Contact Technical Service.

Unusual noises from loading chute.	Foreign matter in input hopper, such as cutlery, bones or ceramics.	• End the cycle with the **[Start]** button or switch off the main switch. • Remove foreign matter or rectify the fault.
Grinder no longer rotating.	Grinder blocked or motor overloaded.	• Release the blockage with the unlocking key. Contact Technical Service if necessary.
Lid not remaining in open position.	Hinges defective.	• Contact Technical Service.
Biomass not being pumped out of loading chute.	Impeller pump, grinder or pipework is blocked.	• Poss. remove the blockage in the grinder. • Contact Technical Service.
Service LED flashing.	Flashes for the first time shortly before reaching the maximum number of homogenisation cycles.	• Confirm status with button. • Arrange maintenance.
	Maximum number of homogenisation cycles has been reached.	• Maintenance must be carried out and the maintenance counter reset.

As a rule, faults that are not described here require assistance from a service technician authorised by MEIKO. Please contact your market organisation or an authorised dealer.

9.10.1 Remedying grinder blockages

⚠ CAUTION – Risk of crushing when closing the lid!

- Always operate the lid using the handle.
- Do not reach under the hinged lid.

⚠ CAUTION – Risk of injury from sharp edges

There is a risk of injury from the sharp edges of the grinder unit.

- Wear protective gloves when working in the loading chute.

If the grinder becomes blocked during operation, it can be released using the unlocking key supplied.

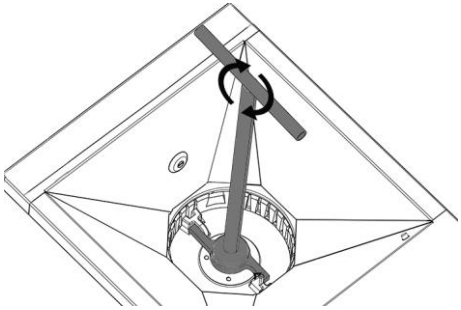
► The grinder is blocked.

1. Turn off the main switch.

↳ The machine stops.

2. Switch on the main switch and open the lid.
3. Switch off the main switch with the lid open.

↳ Always carry out work on the grinder when the main switch is switched off!



4. Place the unlocking key on the rotor.
5. Use the key to move the grinder back and forth in both directions several times until the blockage is released.
6. If necessary, remove foreign objects from the grinder.
7. Remove the unlocking key and close the lid.

✓ The blockage is released, turn on the main switch.

10 Cleaning

Cleaning should be performed daily or at the end of the shift to ensure continuous trouble-free operation.

⚠ CAUTION – Material damage to electrics due to water ingress

- The machine, control cabinets and other electrical components must never be sprayed with a high pressure cleaner or a steam cleaner.
- Make sure that no water can enter the machine unintentionally.
- If installed at ground level, never flood the surrounding room.

10.1 Cleaning the chute

⚠ CAUTION – Risk of crushing when closing the lid!

- Always operate the lid using the handle.
- Do not reach under the hinged lid.

⚠ CAUTION - Risk of crushing at the rear lid gap!

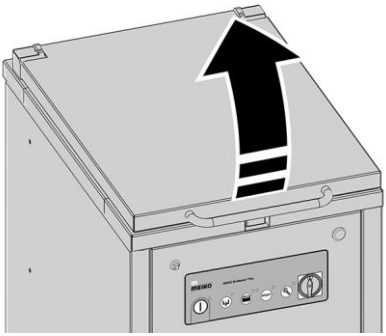
When opening the lid, there is a risk of crushing hands and fingers at the rear lid gap.

- Only open the lid when nobody has their hands in the area of the lid gap.
- Do not reach into the lid gap.

⚠ CAUTION – Risk of injury from sharp edges

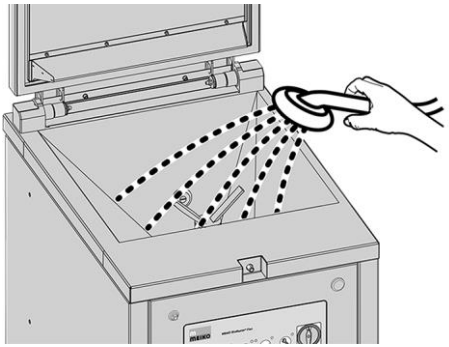
There is a risk of injury from the sharp edges of the grinder unit.

- Wear protective gloves when working in the loading chute.

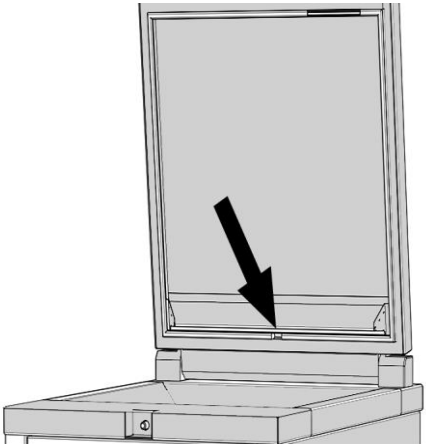


▶ The last homogenisation cycle is complete.

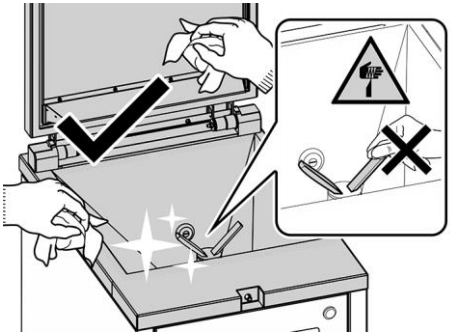
1. Open the lid.



2. Using a hand spray, rinse from top to bottom, first the inside of the lid and then the loading chute.
3. Press the **[Drain]** button to pump out residual water.



4. Clean the surrounding lid seal and the opening in the lid seal (arrow) with a cloth and keep it free of dirt.
5. Turn off the main switch.



6. Wipe out the loading chute with a soft cloth, clean the locking bolts and the inside of the lid.

✓ The loading chute is cleaned.

10.2 Washing transport pipes

The transport pipes should be washed weekly to ensure trouble-free operation in the long term.

► The loading chute is empty.

1. Open the lid and fill the loading chute with lukewarm tap water up to the maximum mark.
2. Add some biodegradable detergent according to the detergent instructions.
3. Close the lid and pump out the contents until the loading chute is empty.

✓ The transport pipes and the impeller pump are washed by the pumping process.

10.3 Cleaning the stainless steel surfaces

We recommend that, when required, the stainless steel surfaces are cleaned exclusively using cleaning and care products that are suitable for stainless steel.

- Lightly soiled parts can be cleaned with a soft and possibly damp cloth or sponge. For moistening we recommend only using demineralised water.
- In order to prevent limescale, we recommend wiping the surfaces thoroughly dry after cleaning.

10.4 Cleaning the membrane keypad

▶ Make sure that the membrane keypad does not contact any stainless steel cleaning agents as this may result in damage to the membrane keypad.

1. Clean the membrane keypad using a damp cloth.

✓ The membrane keypad has been cleaned.

11 Maintenance

⚠ WARNING – Danger to life from electric shock

- Work on the electrical system may only be carried out by a qualified electrician.
- Disconnect the machine from the power supply before working on the electrical system. To do this, turn the local mains switch to OFF and ensure that it cannot be switched back on again.

⚠ CAUTION – Risk of crushing when closing the lid!

- Always operate the lid using the handle.
- Do not reach under the hinged lid.

⚠ CAUTION - Risk of crushing at the rear lid gap!

When opening the lid, there is a risk of crushing hands and fingers at the rear lid gap.

- Only open the lid when nobody has their hands in the area of the lid gap.
- Do not reach into the lid gap.

Note

After 5000 cycles, the service LED lights up and reminds you that maintenance is required. After confirmation with the **[Service]** button, the service LED lights up continuously. Work can be continued. Maintenance should be carried out as soon as possible.
Once the maximum number of cycles has been reached, the service LED can no longer be confirmed. It flashes permanently until the maintenance counter is reset.

11.1 Qualification required for maintenance activities

The minimum qualification required for the respective maintenance activity is specified in the “Q” column in the maintenance plan:

- B = Trained operating staff
- HT = In-house technician with technical training
- S = Authorised service technician

11.2 Maintenance plan

Machine in general	**Interval**	**Q**
Check the machine for external damage.	5000 cycles/annually	S
Check the membrane keypad for damage and legibility of the symbols.	Monthly	B
Check that safety signs are present and legible.	Annually	B
Check the silicone joints on attachment chutes or table connections.	5000 cycles/annually	S
Lid	**Interval**	**Q**
Check the lid hinge for correct operation and tight fit.	5000 cycles/annually	S
Replace the lid seal.	5000 cycles/annually	S
Check the locking bolt for damage and ease of movement.	5000 cycles/annually	S
Clean and lubricate the locking bolt and recess.	Weekly	B
Grinder	**Interval**	**Q**
Check the transparent tube on the grinder housing for biomass residues.	Monthly	B
Check the pre-grinding unit, rotor disc, blade ring and chute seal for damage and wear.	5000 cycles/annually	S
Replace the grinder sealing system.	5000 cycles/annually	S
Check that the screws on the grinder housing are tight.	5000 cycles/annually	S
Control box	**Interval**	**Q**
Check the connection and earthing cable for damages and tight fit.	5000 cycles/annually	S
Check the cable entries in the control box for damage.	5000 cycles/annually	S

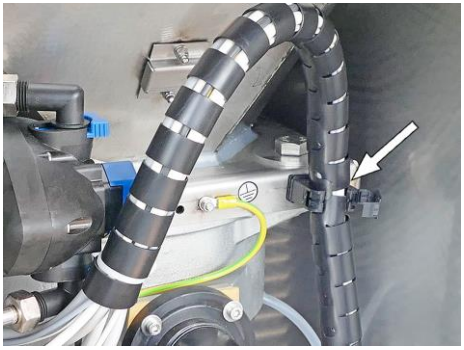
Check the control box for leaks and water residue.	5000 cycles/annually	S
Process water supply	**Interval**	**Q**
Check the water connection for tightness.	5000 cycles/annually	S
Clean the fine sieve of the solenoid valve.	5000 cycles/annually	S
Impeller pump	**Interval**	**Q**
Check the impeller pump for leaks	Monthly	B
Check pump head contour for wear.	5000 cycles/annually	S
Check coupling for wear.	5000 cycles/annually	S
Replace the pump head seal kit.	5000 cycles/annually	S
Replace impeller.	5000 cycles/annually	S
Replace the seals of the product and transport pipes.	5000 cycles/annually	S
Electrical safety test/functional test	**Interval**	**Q**
Check that safety equipment is working.	5000 cycles/annually	S
Check the machine for proper working order and tightness.	5000 cycles/annually	S
Check the process water quantity and adjust if necessary.	5000 cycles/annually	S

11.3 Opening the service flap

🛠 Control cabinet key, universal

► The main switch is switched off.

1. 2x Locking of the service flap.
2. Open the service flap until the safety rope (1) is taut.
3. Unhook the carabiner.



4. Open the clip (arrow) and remove the wiring harness from the holder.

5. Carefully remove the service flap upwards from the guide and place it on the side of the housing.

Caution! Pay attention to the electrical cables and do not place the service flap on the main switch!

✓ The service flap is open. Hook safety cable back in when closing.

11.4 Checking safety labels and signs

Safety labels and signs on the product must always be clearly legible.

1. Check all safety labels and signs for legibility.
2. Replace damaged, illegible safety labels and signs. These can be reordered at MEIKO.

✓ The safety levels and signs have been checked.

11.5 Check lid lock for correct function

1. Turn on the main switch.
2. Press the **[Reset]** button.

↳ The lid is unlocked.

3. Open the lid completely.

↳ The lid must not close automatically.

4. Close the lid.
5. Start homogenisation cycle.
6. Try to open the lid during the cycle.

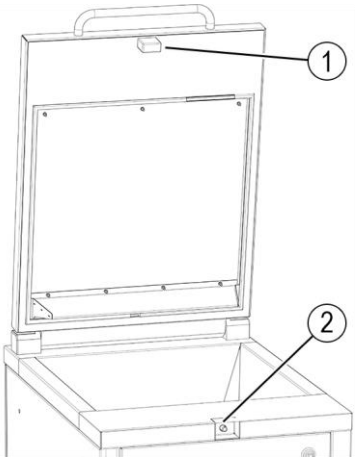
↳ The lid must be locked during the cycle and must not be able to be opened.

✓ The locking of the lid has been checked.

11.6 Clean and lubricate the locking bolt

🛠 Balistol universal oil

▶ The machine is switched on, no cycle is active.



1. Open the lid.
2. Clean the locking tab (1) and trough (2) with a cloth.
3. Switch off the machine at the main switch when the lid is open.

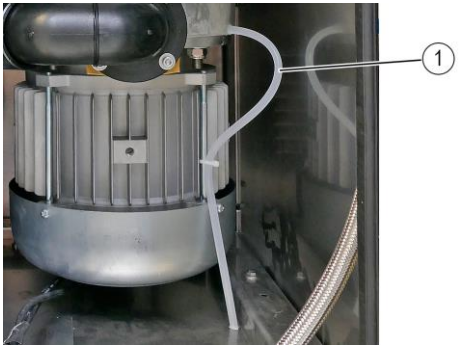
↳ The locking bolt extends.

4. Wet the locking bolt with universal oil.

5. Press in the locking bolt several times with your finger to distribute the oil.
6. Switch on the machine and close the lid.

✓ The locking bolt is cleaned and lubricated.

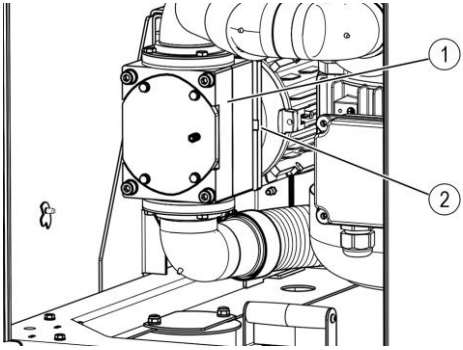
11.7 Checking the hose on the grinder housing for residues



1. Open the service flap to the technical area.
2. Check the hose (1) on the grinder housing for biomass residues.
3. If there are clearly visible residues, contact Technical Service.

✓ The hose has been checked for residues, the technical area can be closed.

11.8 Checking the impeller pump for leaks



1. Open the service flap to the technical area.
2. Check the lateral recess of the adapter plate (2) behind the impeller pump (1) for residues.
3. If clearly visible residues escape or are present, contact Technical Service.

✓ The impeller pump has been checked for leaks and the technical area can be closed.

12 Decommissioning

Note

Decommissioning may only be carried out by an instructed in-house technician or a service technician authorised by MEIKO.

⚠ DANGER - Danger to life from electric shock if the main switch is switched off!

When the main switch is off, electrical circuits may still have voltage, such as cables upstream of the main switch and the electronic interfaces to connected machines or systems. Contact with live electrical parts may result in serious injury or death.

- Work on the electrical system may only be carried out by a qualified electrician.
- Before working on the electrical system, disconnect the machine from the power supply and secure it against being switched back on.
- Check the wiring diagram before working on the electrical system.

► The loading chute is empty.

1. Clean the machine and loading chute.
2. Wash the transport pipes with lukewarm water and biological detergent.
3. If necessary, close the existing ball valve.
4. Close the on-site water tap.
5. Turn off the main switch.
6. Pull out the mains plug.
7. Open the technical cabinet and place the drip vessel under the impeller pump.
8. Remove the cover of the impeller pump, collect the residual water and dispose of it via waste water.
9. Install the impeller pump cover.

✓ The machine has been decommissioned.

13 Dismantling and disposal

Note

Dismantling must only be carried out by an authorised MEIKO service technician or by a qualified contractor.

13.1 Dismantling the machine

⚠ DANGER - Danger to life from electric shock if the main switch is switched off!

When the main switch is off, electrical circuits may still have voltage, such as cables upstream of the main switch and the electronic interfaces to connected machines or systems. Contact with live electrical parts may result in serious injury or death.

- Work on the electrical system may only be carried out by a qualified electrician.
- Before working on the electrical system, disconnect the machine from the power supply and secure it against being switched back on.
- Check the wiring diagram before working on the electrical system.

Observe the following points during disassembly:

▶ The machine has been decommissioned.

1. Disconnect the machine from the mains supply.
2. Disconnect the interface to the connected tank system.
3. Disconnect the hose connection to the transport pipe and seal with a sink stopper.
4. Disconnect the fresh water inlet.

✓ The machine is prepared for further disassembly. Commission a specialised company for environmentally friendly disposal.

13.2 Disposal of the old appliance

In addition to valuable raw materials and recyclable materials, the packaging and the old appliance may also contain substances that are harmful to health and the environment and were required for the function and safety of the old appliance.

The appliance is marked with this symbol. Please observe the local regulations for proper disposal of your old appliance.

The components should be separated by material for recycling.

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