

Operating and installation instructions

english

Elmasonic xtra ST accesories

Elma Move



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Subject to technical and visual modifications.

Contents

1 About this manual.....	4	10 Install and connect	13
1.1 User	4	10.1 Installing oscillation sizes 300–800 ...	13
1.2 Other applicable documents	4	10.2 Installing oscillation sizes 1400–2500	15
1.3 CE mark.....	4	10.3 Adjusting feet.....	17
2 Proper use	5	10.4 Mounting basket holder	18
3 Safety	5	10.5 Installing protector set	19
3.1 The structure of warnings	5	10.6 Mounting the frame	20
3.2 Meaning of symbols on the unit.....	5	10.7 Fitting the sound-protection cover	21
3.3 Meaning of symbols on the nameplate	6	10.8 Connecting the three-phase plug	24
3.4 Safety information on specific types of hazard.....	6	11 Operate	24
4 Technical data 300–800	7	11.1 Control unit	24
5 Technical data 1400–2500	7	11.2 Insert a basket.....	25
6 Technical data 300–2500	8	11.3 Starting/stopping Elma Move	26
7 Product contents	8	12 Servicing.....	26
8 Description	10	12.1 Replace the network cable	26
9 Transport and mount.....	12	12.2 Clean enclosure	26
9.1 Notes on installation site.....	12	12.3 Cleaning ventilation slots.....	27
		12.4 Drying the frame	27
		12.5 Checking screws	27
		13 Disassembly.....	28
		14 Disposal.....	28

1 About this manual

NOTE Please read the manual before using the product. This manual forms part of the contents supplied with the unit. Keep the manual in an accessible place close to the product, and keep it with the product if it is sold on.

Meaning of the symbols used:

- This symbol denotes lists.
- ✓ This symbol denotes requirements.
- 1. Numbers with a dot denote actions.
- This symbol denotes individual actions.
- ⇒ This symbol denotes interim results.
- ➔ This symbol denotes the result of an action.
- 1 Numbers without a dot denote image labels.

1.1 User

In the manual, the term User refers to all persons who transport, set up, connect, operate and maintain the unit. The manual is aimed at persons with appropriate technical knowledge and experience in handling similar units.

The user is at least 16 years old. They must have read and understood the manual and be capable of following all notes and instructions.

All tasks that go beyond the pure operation of the unit within the scope described here must be performed by qualified and authorised specialists.

1.2 Other applicable documents

In addition to the specifications given in this manual, the following documents and directives also apply and may take precedence. This list is not exhaustive:

- Regional safety regulations and other locally applicable provisions.
- Safety data sheet and dosing instructions of the cleaning agents used.
- All serious incidents that occur in connection with the product must be reported to the manufacturer and the responsible authority of the member state in which the operator and/or the patient are resident.

1.3 CE mark

This unit fulfils CE marking requirements in line with EU (EC/EEC) directives. Details are stated in the EU declaration of conformity that can be obtained from the manufacturer.

Technical changes to the unit must be approved by the manufacturer.

2 Proper use

This product is exclusively intended for connecting to the following units:

- Elmasonic xtra ST

The Elma Move is an electromechanical oscillation device with a basket holder and control unit. The oscillation allows for automatic movement of the basket up and down in the cleaning bath of the Elma xtra ST ultrasonic device. The basket movement ensures a more even cleaning result.

- The Elma Move is only suitable for use with the basket accessory for the Elmasonic xtra ST ultrasonic unit.

Using the unit in any other way is considered improper use.

3 Safety

3.1 The structure of warnings



SIGNALWORD

Type and source of the danger

Possible consequences of the danger if disregarded.

➤ Measures to prevent the danger.

Signal word	Meaning	Consequences if disregarded
DANGER	Immediate danger	Death or serious injury
WARNING	Possible dangerous situation	Death or serious injury
CAUTION	Possible dangerous situation	Slight injuries, damage to components or units
NOTICE	Useful advice or tip	No risk of personal injury, but possible damage to components or units

Table 1: Meaning of the signal words

3.2 Meaning of symbols on the unit



Risk of electric shock











Warning of hand injuries



Max. load capacity 35 kg (from size 800)

3.3 Meaning of symbols on the nameplate

	Read the manual
	Disposal information
	Attention
	Manufacturer
	Date of production
	Order number
	Serial number
	CE mark

3.4 Safety information on specific types of hazard

Electrical power

Contact with live components can lead to serious injury or death due to electrocution!

- Do not connect the unit to the power supply if the connection cables or other components are visibly damaged.
- Keep the housing and control elements clean and dry.
- Protect the unit against penetrating moisture.
- The mains voltage and the connected load on the nameplate must correspond to the on-site connection conditions.
- Only operate the unit in power circuits that are protected by a fault-current circuit breaker.

Mechanical motion

The Elma Move moves mechanically and can cause slight to serious crushing injuries.

- Do not reach into the unit when mechanical oscillation is active.
- Do not operate the unit with long hair or jewellery.
- Only insert or remove the basket in/from the basket holder once the oscillation motion has been switched off.
- Disconnect the unit from the power supply prior to commencing any maintenance or cleaning work.

4 Technical data 300–800

Elma Move	Unit	300	500	600	800
Mechanical data					
Max. external dimensions W/D/H Oscillation	mm	325 / 220 / 695		485 / 220 / 495	
Max. external dimensions W/D/H Basket holder	mm	255 / 45 / 310	255 / 45 / 510	415 / 45 / 355	400 / 45 / 505
Max. external dimensions W/D/H Control unit	mm	155 / 85 / 170			
Max. basket loading (original accessories)	kg	12		25	35
Weight	kg	19		23	
Material	-	Stainless steel			
Adjustable feet	mm	-			

5 Technical data 1400–2500

Elma Move	Unit	1,400	1,600	2,500
Mechanical data				
Max. external dimensions W/D/H Oscillation	mm	590 / 340 / 985 (1,020)		740 / 340 / 985 (1,020)
Max. external dimensions W/D/H Basket holder	mm	470 / 45 / 335	470 / 45 / 435	620 / 45 / 505
Max. external dimensions W/D/H Control unit	mm	155 / 85 / 170		
Max. basket loading (original accessories)	kg		35	
Weight	kg		35	
Material	-	Stainless steel		
Adjustable feet	mm	25–60		

6 Technical data 300–2500

Elma Move	Unit	300–2,500
Ambient conditions		
Temperature (operation, storage)	°C	+5 to +40
Temperature (transport)	°C	–5 to +60
Permissible relative humidity (operation)	% r. h.	80; non-condensing under fluctuating temperatures
Permissible relative humidity (transport,	% r. h.	10 – 80, non-condensing
Air pressure (transport, storage)	hPa	500 to 1,010
Max. perm. altitude (operation)	m above sea level	+2,000
Overvoltage category	-	II
Degree of contamination	-	2
Electrical data		
Mains voltage $\pm 10\%$	V~	3x 400 + N + PE
Mains frequency	Hz	50
Total power consumption	W	100
Degree of protection	IP	20
Protection class	-	I
Environment	-	Wet
Cable length	m	3

7 Product contents

NOTICE

Minor injury or damage to property



- Check deliveries for damage to the packaging. Document any damage immediately (e.g. photo), and report it to the manufacturer or dealer.
- Check that all parts of the delivery are complete and undamaged.
- Never put a damaged unit into operation.
- Dispose of packaging materials that are no longer required in an environmentally friendly manner.

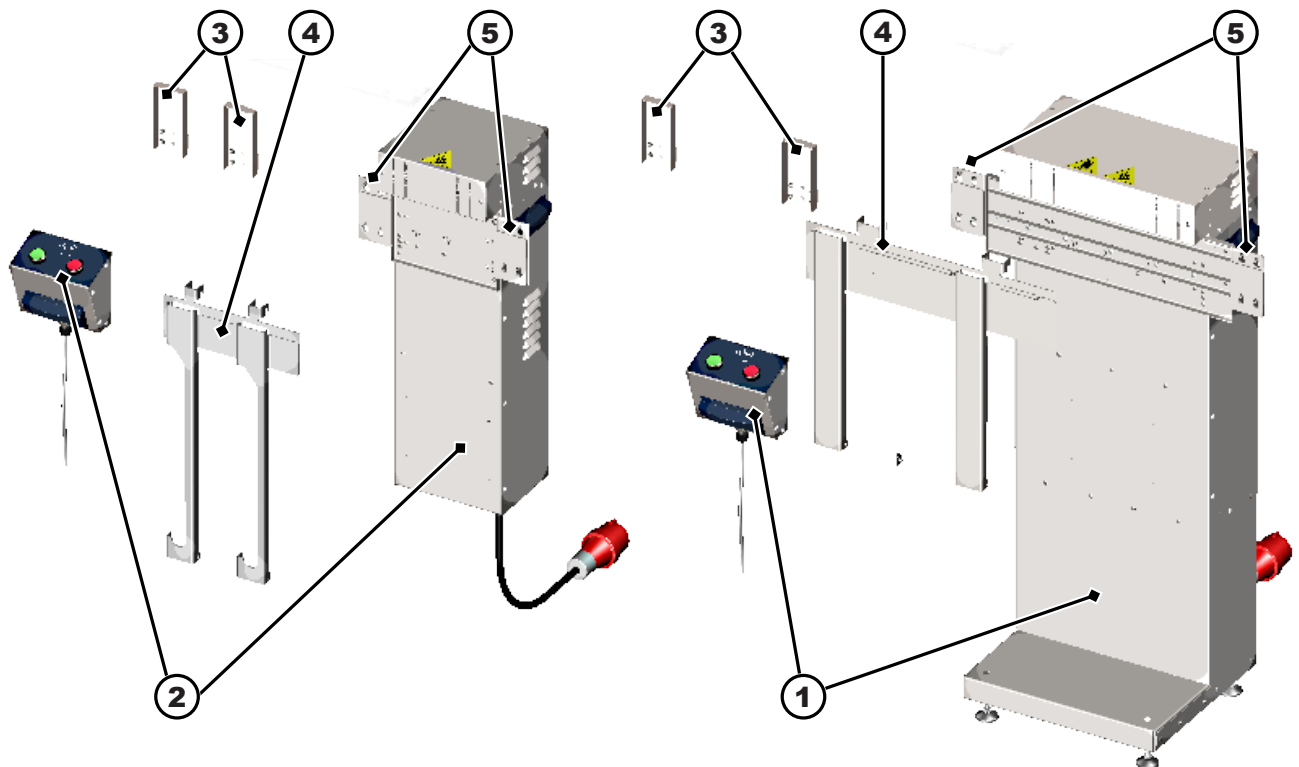


Illustration 1: Elma Move product contents

1	Oscillation with control unit sizes 1,400–2,500 (control unit with magnets on the back to fasten to the unit)
2	Oscillation with control unit sizes 300–800 (control unit with magnets on the back to fasten to the unit)
3	2x protector set for fastening onto the basket (1x U-sheet, 2x M4 stainless steel screws with self-locking stainless-steel nuts)
4	Basket holder
5	8x M5 screws , galvanised (for fastening to the oscillation)
6	Stainless-steel adhesive sticker , magnetic (not shown, for fastening the control unit to non-magnetic surfaces)
	Operating and installation instructions (not shown)

Optional accessories:

7	Frame (for ultrasonic devices with sound-protection cover, not shown)
8	4x M5 screws , galvanised (to fasten to the frame, not shown)

8 Description

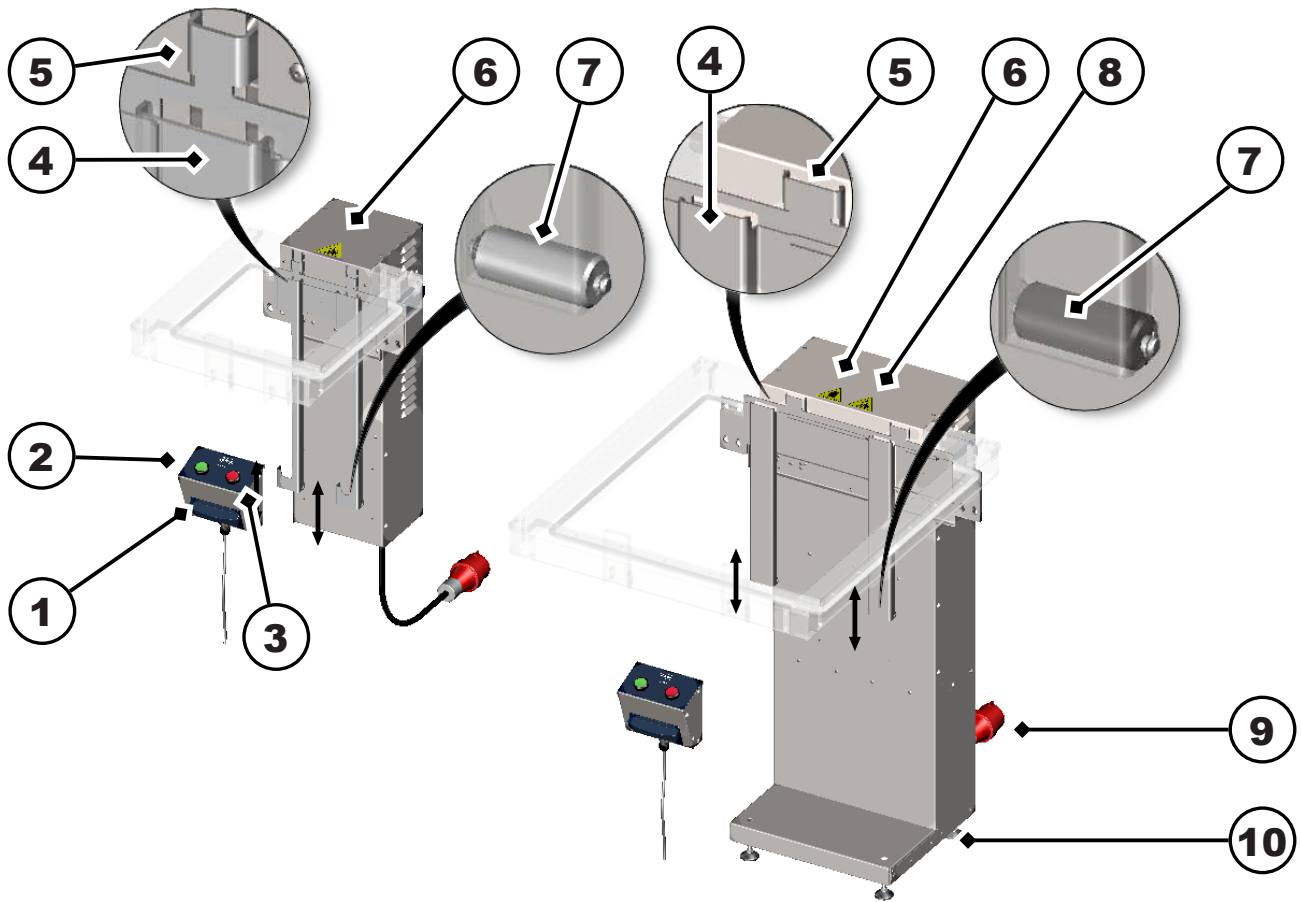


Illustration 2: Description of Elma Move front side

- | | |
|---|--|
| <p>1 Handle, for placing/removing control unit on/from a metallic surface</p> <p>2 Start button, green, switches on oscillation</p> <p>3 Stop button, red, switches off oscillation/notice of malfunction</p> <p>4 Basket holder hooks to hang basket</p> <p>5 Mounting hooks for hanging basket holder in oscillation</p> | <p>6 Warning of crushing</p> <p>7 Carriage roller (basket holder, transparent view)</p> <p>8 Warning of load capacity
 ⚠ WARNING! Do not exceed maximum total weight for basket!</p> <p>9 Three-phase current plug</p> <p>10 Adjustable feet (sizes 1400–2500)</p> |
|---|--|

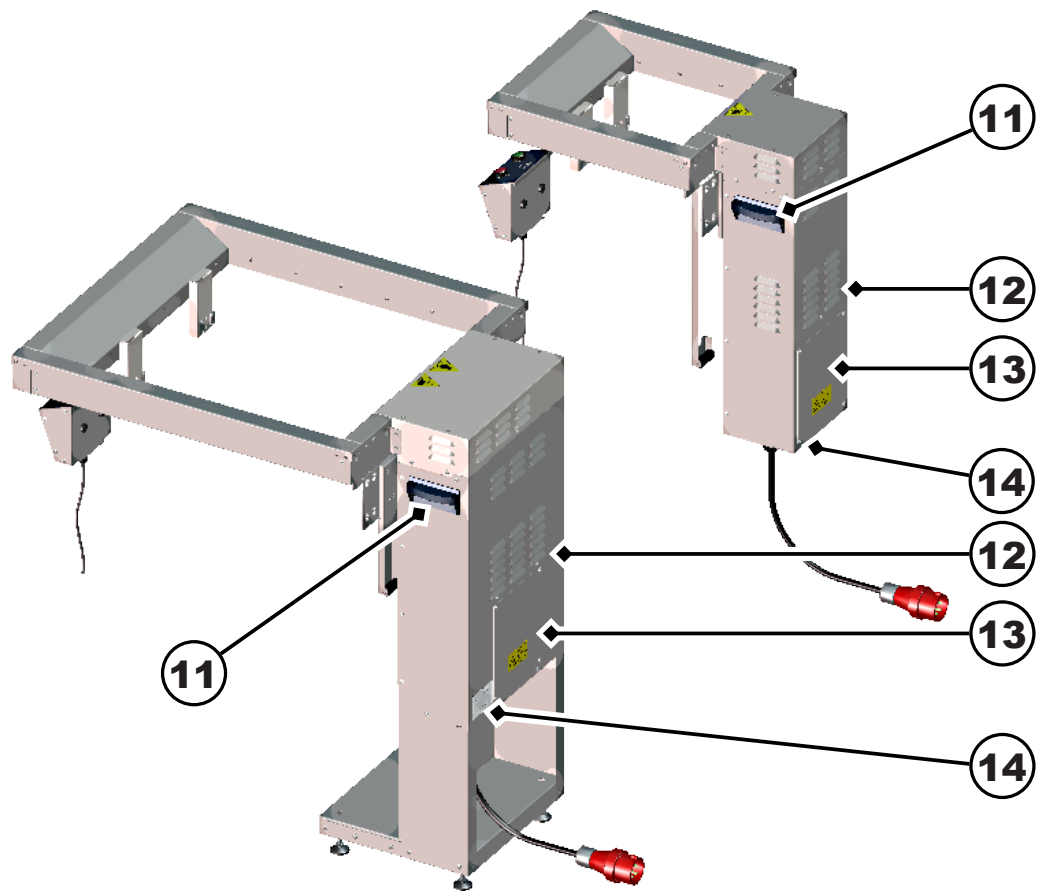


Illustration 3: Description of Elma Move rear side

11 Oscillation **handle** (for transport and installation)

12 **Ventilation slot**

13 Oscillation maintenance door
⚠ CAUTION! Risk of electric shock, must only be opened by service professionals

14 **Nameplate**

9 Transport and mount



CAUTION

Heavy loads.

Serious injuries to the spine or back muscles.

- Comply with the health and safety requirements on lifting heavy loads.



NOTICE

We recommend documenting transport damage with photos.

- ✓ The unit has been unloaded by the transport company.
- ✓ Transport the unit to the installation site with a forklift or lifting device.
- ✓ An Elmasonic xtra ST ultrasonic unit is to hand.
- ✓ Two persons are recommended for mounting the unit.
 1. Unpack the unit.
 - ⇒ Dispose of packaging material in an environmentally friendly manner.
 2. Check that all the contents are present. Product contents [▶ 8]
 3. Check all the parts of the product for transport damage and defects.
 - ⇒ **i NOTE! Immediately file damage compensation claims related to damage during transport with the transport company and the manufacturer. If transport is the responsibility of the manufacturer, the damage during transport must be immediately described on both the recipient's consignment note and the transport company's consignment note.**
 4. In the event of any identified damage or defects, do not operate the unit.
 - ➔ The unit is set up and can be mounted.

9.1 Notes on installation site

The unit is designed to be installed in commercially used premises such as laboratories, workshops, etc.

- The installation site must be well ventilated.
- The permissible ambient conditions must be met (see technical specifications).
- The unit must be installed on a sturdy, horizontal, non-slip, moisture-resistant work surface with the following characteristics:
 - There must be sufficient space for maintenance tasks above the unit.
 - Ensure that the ventilation slot on the unit is ~10 to 15 cm away from any walls or other objects in the space.
- Electrical connection conditions:
 - The power connection must be protected by a fault-current circuit breaker (RCD).
 - Ensure that the power supply required to operate the unit is available (see technical specifications).

10 Install and connect



CAUTION

Heavy loads.

Serious injuries to the spine or back muscles.

- Comply with the health and safety requirements on lifting heavy loads.



WARNING

Injuries and damage to property in operation

Crushing, damage to components

- Damage to components during operation.
- Check to ensure the installed unit is positioned correctly.
- Tighten the fastening screws on the unit.
- Regularly check to ensure that the unit and accessory fastening screws are tight, tighten if necessary.

10.1 Installing oscillation sizes 300–800

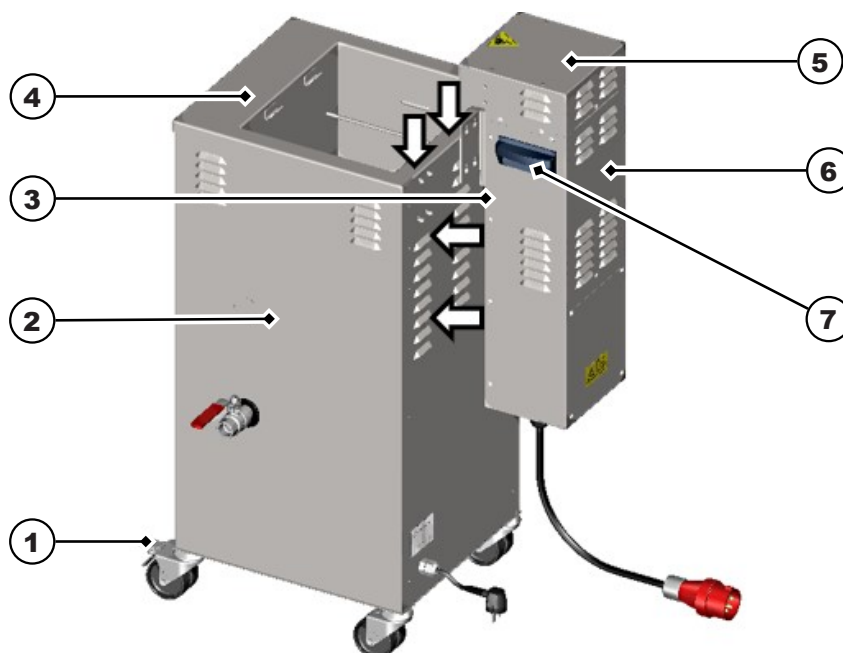
Tools required: Hex key

It is recommended that two persons install the unit.

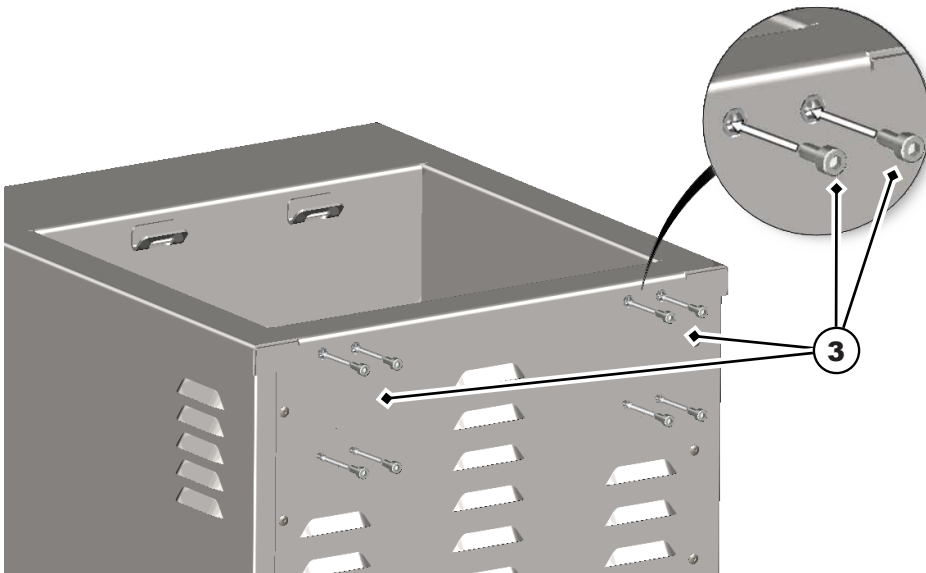
i NOTE! Wear cut-resistant protective gloves.

- ✓ The ultrasonic unit (2) is to hand.
- ✓ The ultrasonic unit is on a level surface.
- ✓ The suitable oscillation (with control panel) for the ultrasonic unit is on hand at the installation site.

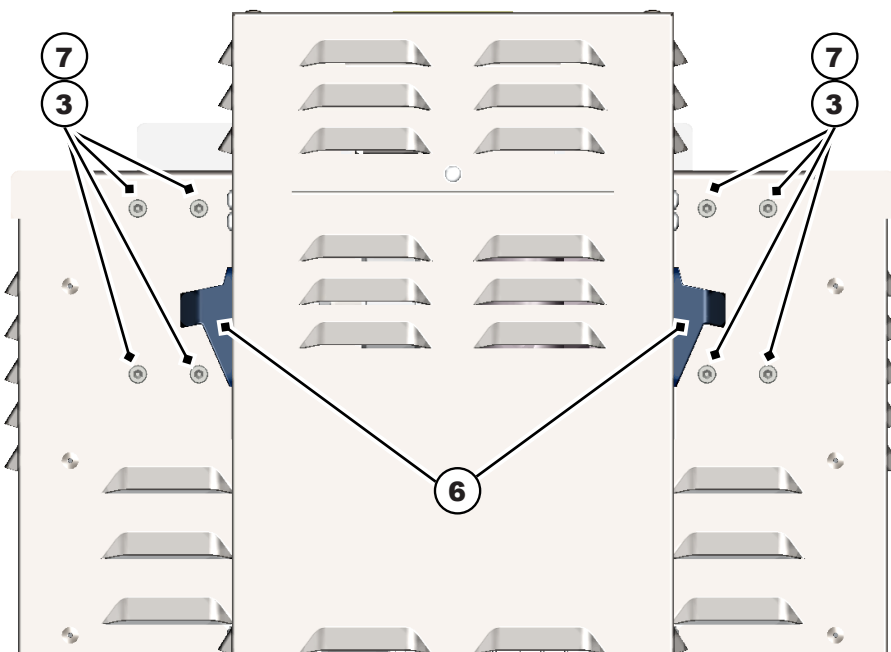
1. Clean the tank edge (4) of the ultrasonic unit.



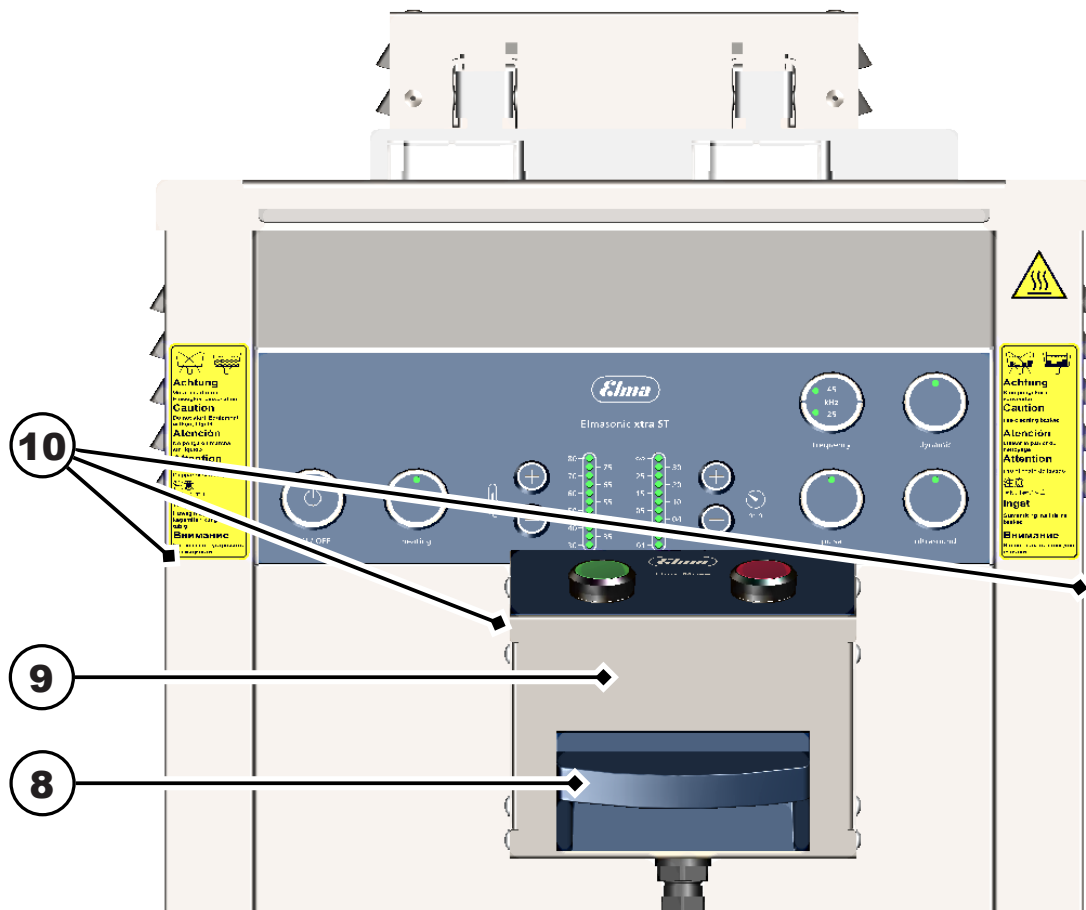
2. Lock the ultrasonic unit's (2) guide roller locking brakes (1) to stop the ultrasonic unit from rolling away.



3. Screw the 8 screws (3) into the ultrasonic unit (2) halfway.
4. Lift the oscillation (5) at the handles (6) and position on the tank edge (4) of the ultrasonic unit. Ensure that the screws (3) are inserted into the holes in the oscillation.



5. Fix the oscillation (5) in place using the screws (3).



6. Attach the control unit (9) to the front or side (10) of the ultrasonic unit using the handle (8). The magnets on the control unit work on all magnetic surfaces.
- ⇒ A magnetic stainless-steel adhesive sticker is included for non-magnetic surfaces.
- ➔ Installation of the oscillation with control unit is complete. The basket holder can be mounted. See chapter Mounting basket holder [▶ 18].

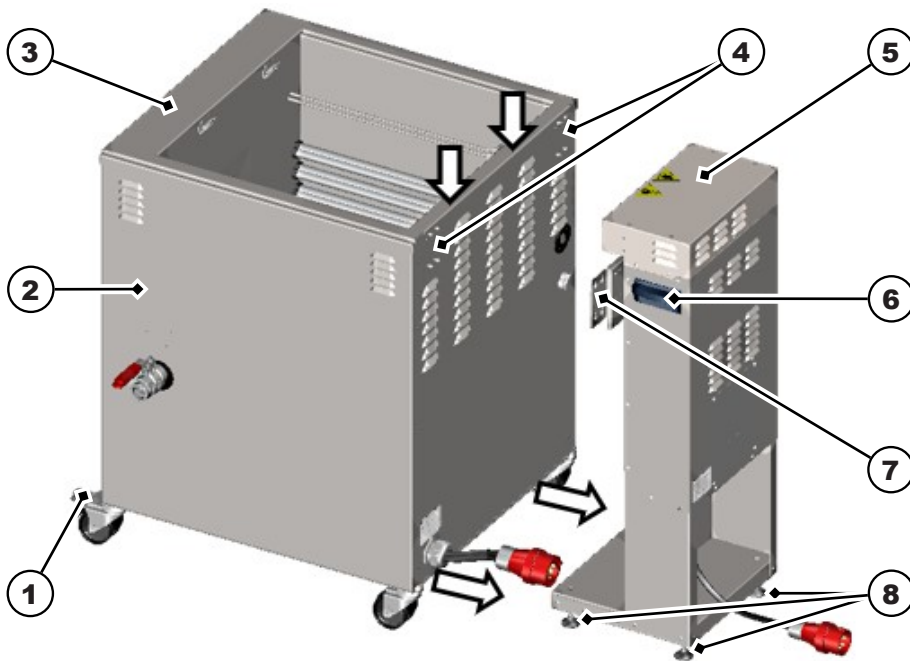
10.2 Installing oscillation sizes 1400–2500

Tools required: Hex key, pipe wrench or open-end spanner

It is recommended that two persons install the unit.

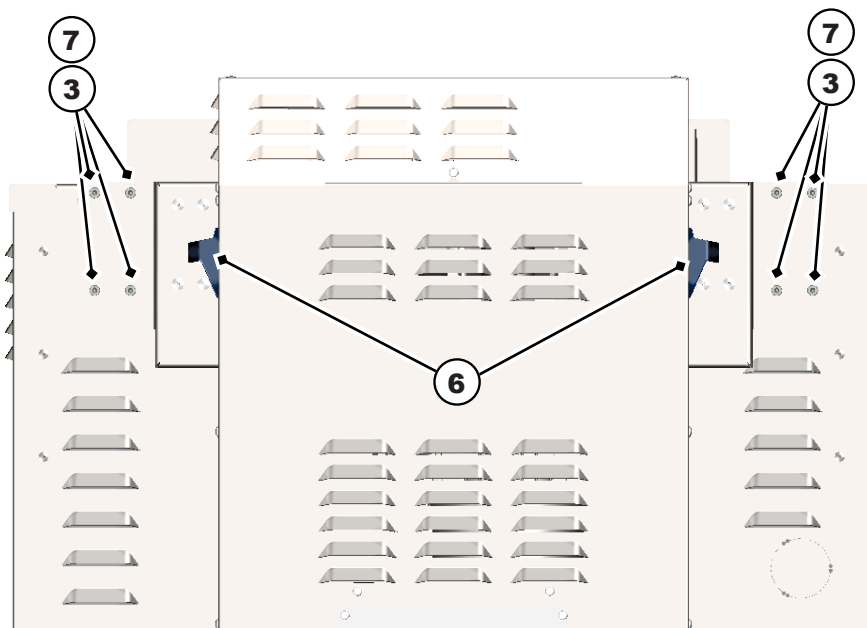
i NOTE! Wear cut-resistant protective gloves.

- ✓ The ultrasonic unit (2) is to hand.
 - ✓ The ultrasonic unit is on a level surface.
 - ✓ The suitable oscillation (with control panel) for the ultrasonic unit is on hand at the installation site.
1. Clean the tank edge (4) of the ultrasonic unit (2).
 2. Release the locking brakes (1) on the ultrasonic unit's guide rollers.

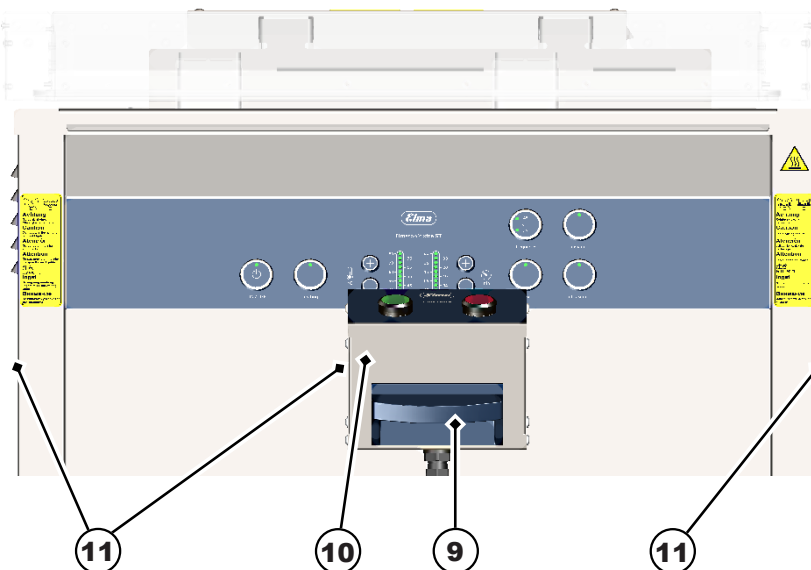


3. Adjust the oscillation's adjustable feet (8) so that the ultrasonic unit (2) can be slid onto the oscillation (5). See chapter Adjusting feet [▶ 17].

⇒ The oscillation's feet are at the right height when the fastening holes (4, 7) line up.



4. Screw the oscillation into the ultrasonic unit thread (4), inserting the hex socket screws into the holes (7).

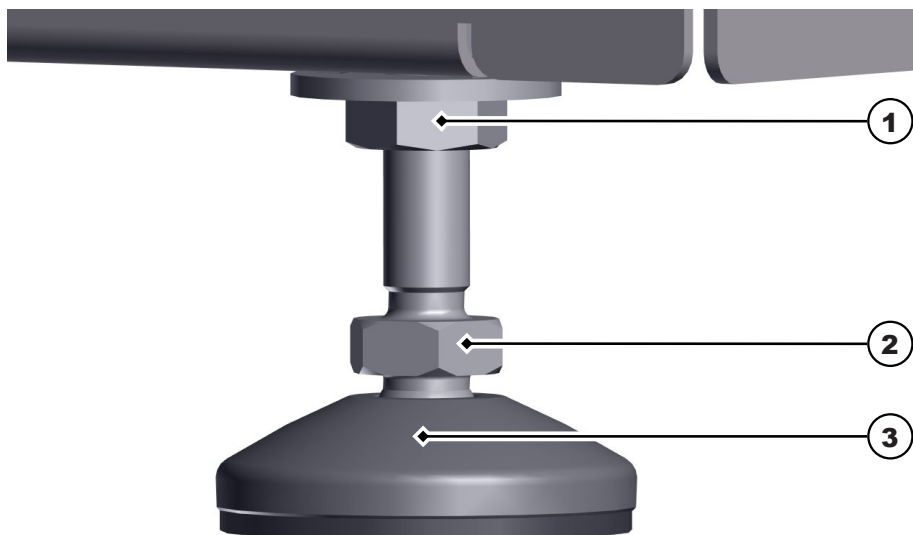


5. Attach the control unit (10) on the handle (9) to the front or side (11) on the ultrasonic unit. The magnets on the control unit work on all magnetic surfaces.
 - ⇒ A magnetic stainless-steel adhesive sticker is included for non-magnetic surfaces.
 6. Lock the ultrasonic unit's (2) guide roller locking brakes (1) to stop the ultrasonic unit from rolling away.
- ➔ Installation of the oscillation with control unit is complete. The basket holder can now be mounted. See chapter Mounting basket holder [▶ 18].

10.3 Adjusting feet

✓ Tools required: Open-end spanner; spirit level

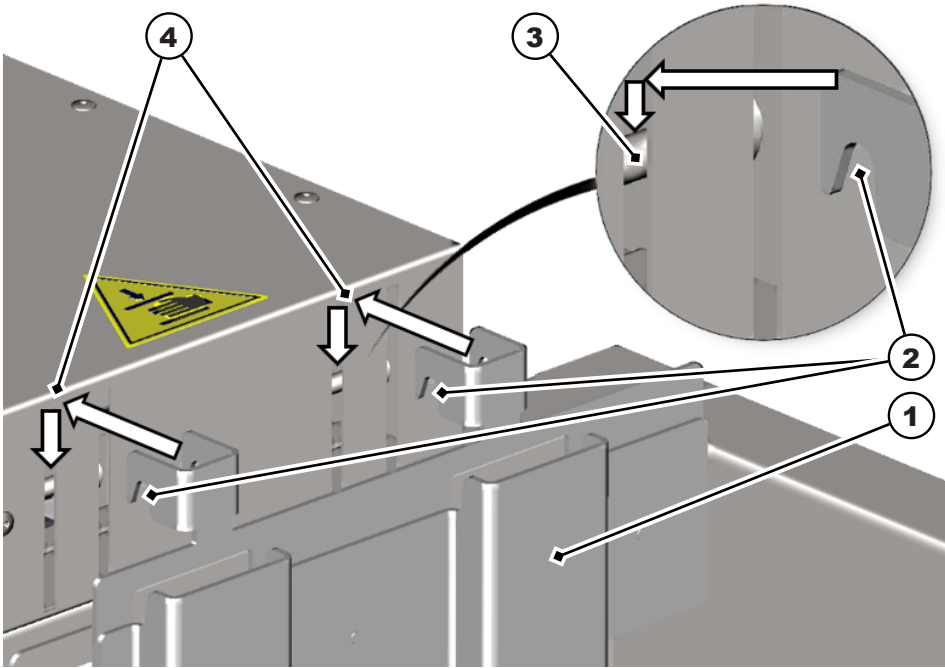
1. Place the spirit level centrally on the unit.



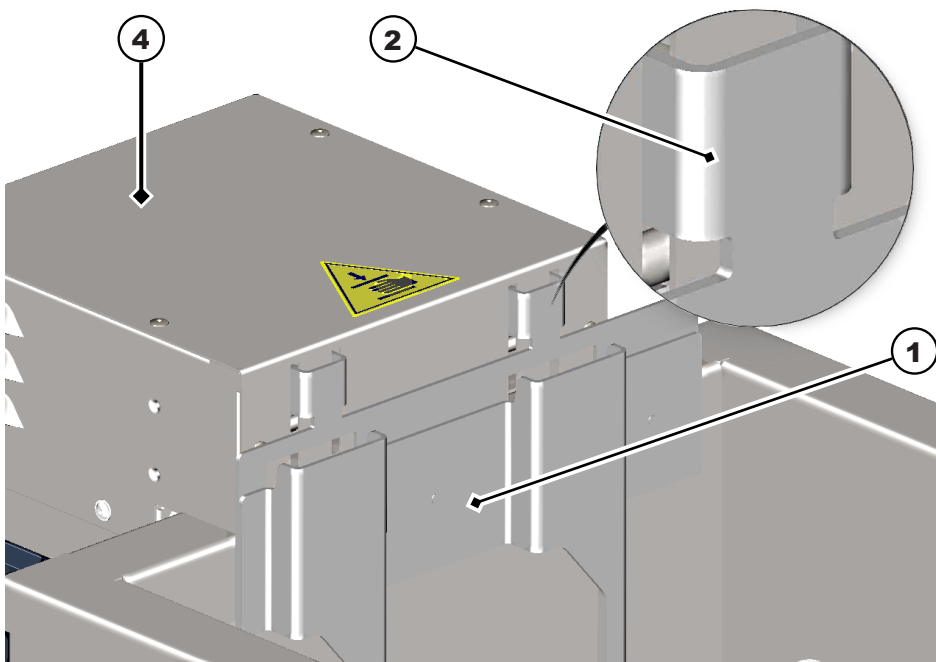
2. Loosen the nuts (1) to adjust the foot.
 3. Turn the nuts (2) to adjust the height of the foot.
 4. Adjust all four feet to level the unit.
 - ⇒ The unit is level.
 5. Tighten the nuts (1) on all four feet.
- ➔ The feet are set.

10.4 Mounting basket holder

- ✓ Installation of the oscillation with control unit is complete.
- 1. Slide the basket holder (1) into the oscillation (4) in the direction of the arrow.
⇒ The pivots (3) must be in the lowest position for this.



- 2. Hang the mounting hooks (2) onto the pivots (3) in the direction of the arrow.



- 3. Check to ensure the mounting hooks (2) are correctly slotted into the pivots (3) on both sides.
→ Mounting the basket holder in the oscillation is complete.

10.5 Installing protector set

WARNING



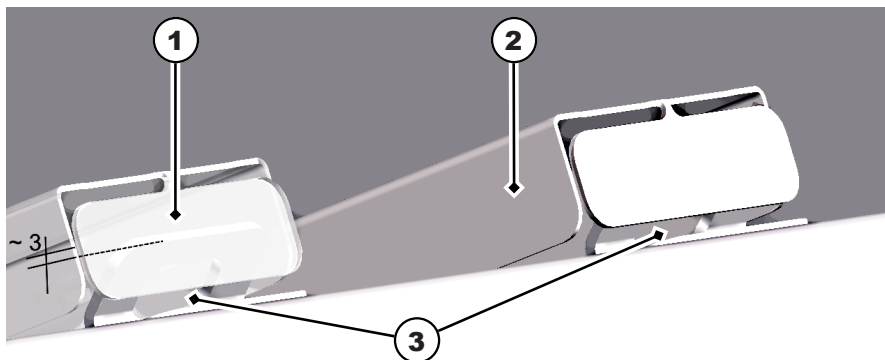
Minor to serious injuries owing to mechanical movement

Body parts at risk of crushing

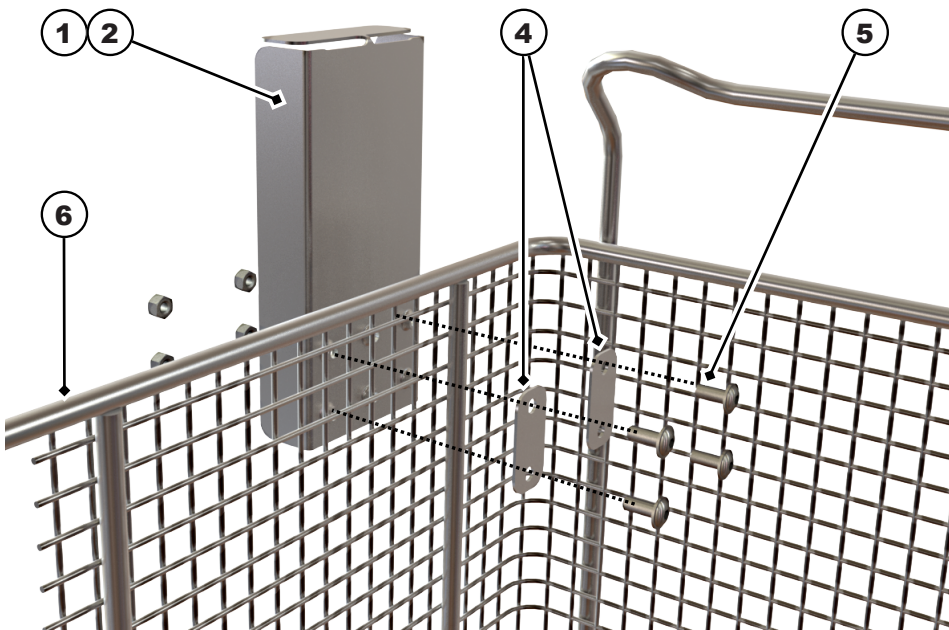
- Unplug mains plug to install protector set.
- Never reach into mechanically moving parts.

Tools required: Hex key, open-end spanner

- ✓ The ultrasonic unit is empty.
 - ✓ Installation of the oscillation with control unit is complete.
 - ✓ The basket holder has been mounted.
 - ✓ Protector set is to hand.
 - ✓ The original basket is to hand.
1. Insert the basket (6) into the basket holder. See chapter Insert a basket [▶ 25].
 2. Plug in the Elma Move mains plug.
 3. Press the **start** button on the control unit to lower the basket.
 4. Press the **stop** button on the control unit when the basket has reached the lowest position.
 - ⇒ The basket is in the lowest position.
 5. Unplug the Elma Move mains plug from the power supply.



6. Position the protector (1, transparent illustration) in the centre of the tank using the basket holder hooks (3).
7. Leave a gap of approx. 3 mm between the upper edge of the basket holder hooks (3) and protectors (1).



8. Attach the protector (1) to the mesh grid using the counter plate(4) and screw (5).
9. Remove the basket (6).
10. Align the protector (1) parallel to the edge of the basket, then secure the counter plate (4) with the second screw (5).
11. Then attach the protectors with screws using the second counter plate.
12. Insert the basket (6) with the protector (1) into the basket holder.
13. Attach the second protector (2) in the same way.
 - ⇒ Protector set is attached.
14. Place the basket with the protector set in the basket holder.
15. Plug in the Elma Move mains plug.
16. Start the oscillation of the Elma Move.
 - i NOTE! The upper edge of the protector must not touch the basket holder hooks of the unit.**
 - ⇒ The protector touches the basket holder hooks.
17. Re-align the protector. Repeat this process until the basket holder hook no longer touches during oscillation.
 - The protector set is installed.

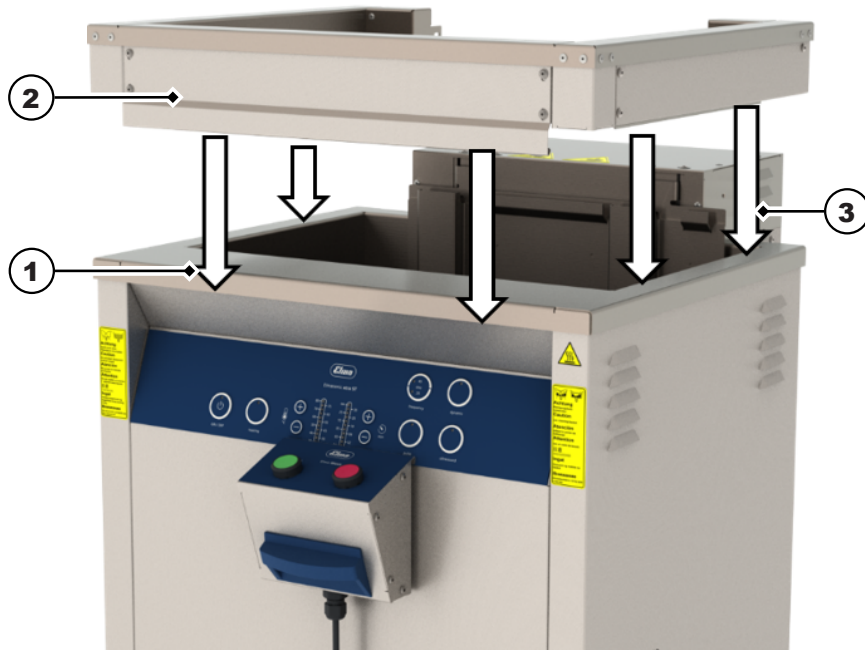
10.6 Mounting the frame

Tools required: Hex key

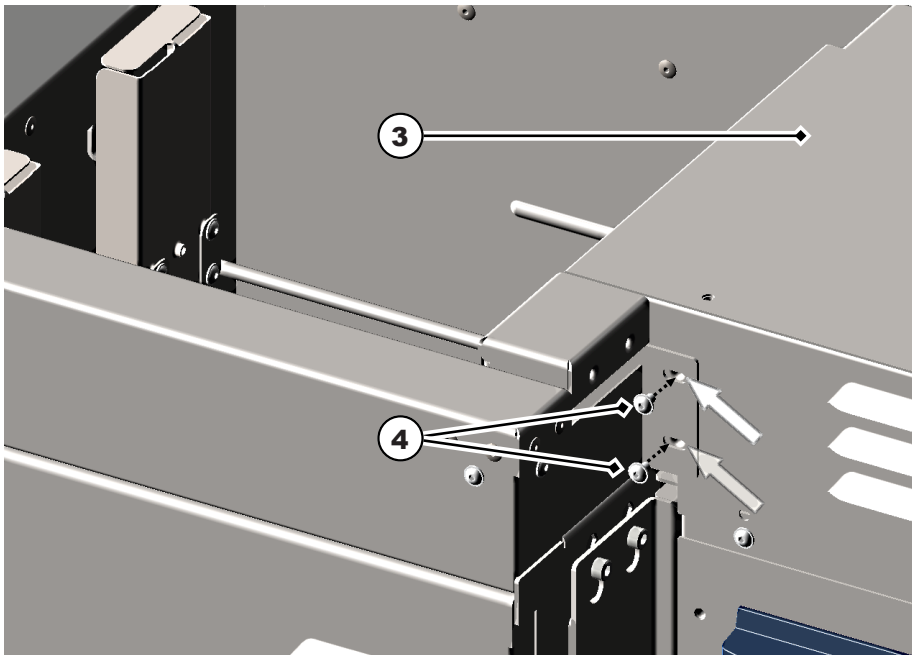
It is recommended that two persons install the unit.

i NOTE! Wear cut-resistant protective gloves.

- ✓ The ultrasonic unit (1) with sound-protection cover is to hand.
 - ✓ The frame is ready at the installation site.
 - ✓ The sound-protection cover has been dismantled (see service information, changing the sound-protection cover).
 - ✓ Installation of the Elma Move (3) is complete.
1. Clean the tank edge of the ultrasonic unit (1).



2. Place the frame (2) on the tank edge.



3. Screw the frame (2) onto the oscillation (3) on both sides with the screws (4).

➔ Installation of the frame is complete.

10.7 Fitting the sound-protection cover

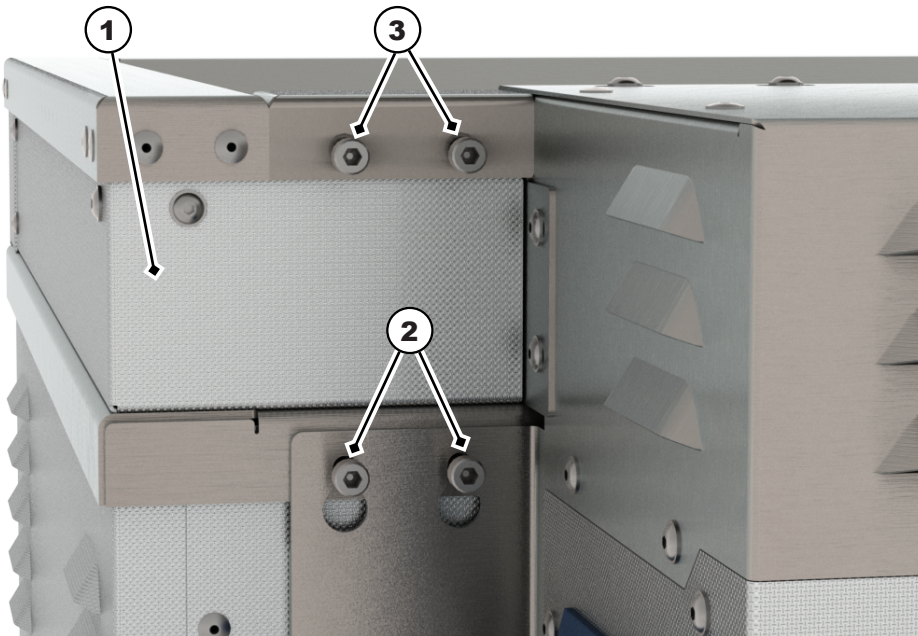
Tools required: Hex key

It is recommended that two persons install the cover.

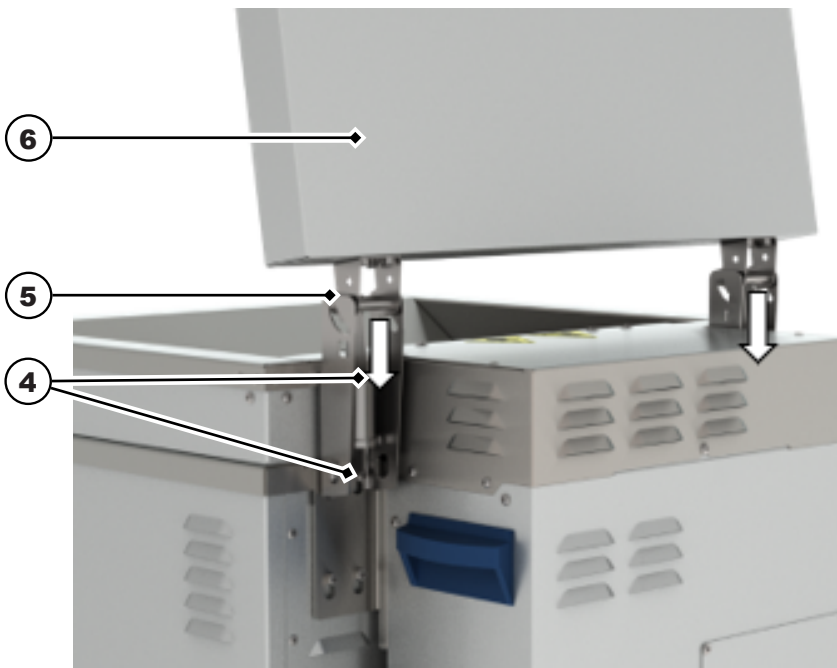
- ✓ The frame (1) is mounted on the ultrasonic device.
- ✓ The sound-protection cover suitable for the ultrasonic device is ready at the installation site.

1. Loosen the existing screws at the bottom (2) on both sides with 3–4 turns.

i NOTE! Do not unscrew the screws completely.

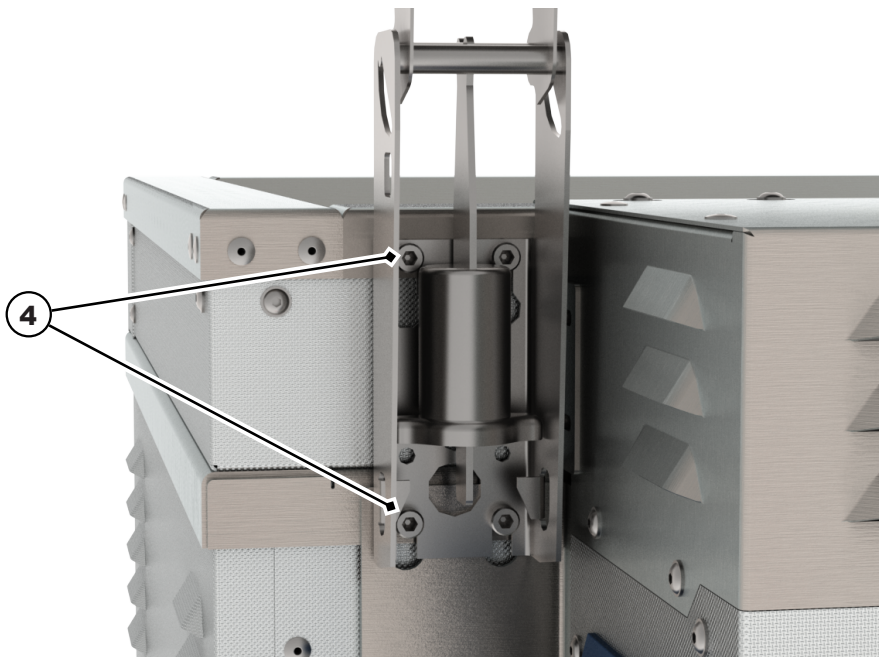


2. Screw in the supplied screws at the top (3) halfway on both sides.

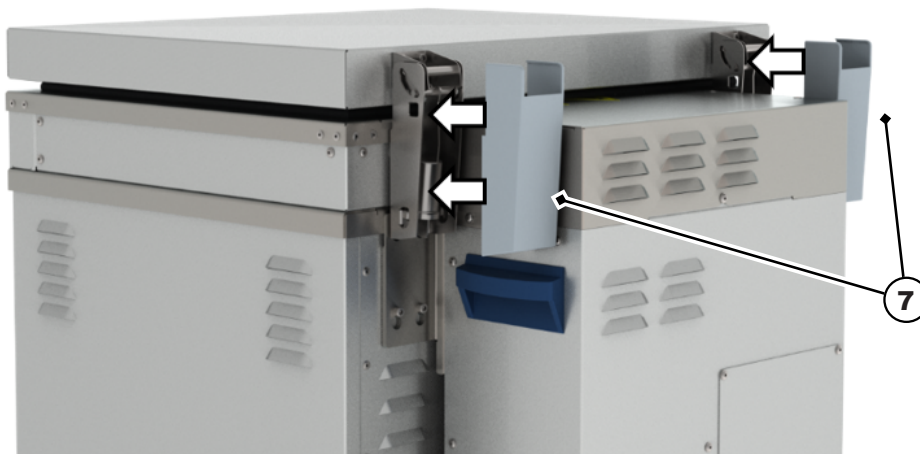


3. Place the hinges (5) of the sound-protective cover (6) on the screws (4) in the open position (relaxed springs) and slide in the direction of the arrow.

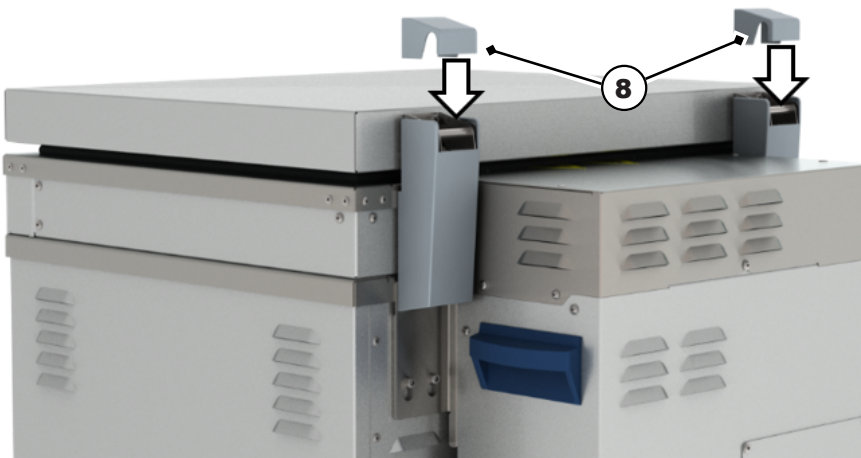
⚠ DANGER! Crushing hazard! Do not close the cover during installation (6).



4. Tighten the screws (4) on both sides.
i NOTE! Check that the screws are tight!
5. Close the sound-protection cover.



6. First place the covers (7) on the hinge in the direction of the arrow.



7. Then place the top covers (8) on the hinge in the direction of the arrow.
➔ The sound-protection cover is fitted.

10.8 Connecting the three-phase plug

For multi-phase units, the user must ensure that:

- ✓ the required power connection is available,
 - ✓ there is a switch or circuit breaker for the unit in the building installation,
 - ✓ this is easily accessible to the user,
 - ✓ and it is marked as the disconnecting device for the unit.
 - Lay the mains cable so that it does not pose a trip hazard, is not damaged and is not exposed to moisture. The mains cable must not rest against the housing of the unit, as the housing becomes hot during operation.
- The unit has been connected to the power supply.

11 Operate

WARNING



Risk of injury due to mechanical movements

Crushing

- Switch off oscillation mode before loading or unloading.
- Only switch on the oscillation in cleaning mode.
- DO NOT reach into the tank.
- Ensure that the basket is correctly positioned in the basket holder.

11.1 Control unit

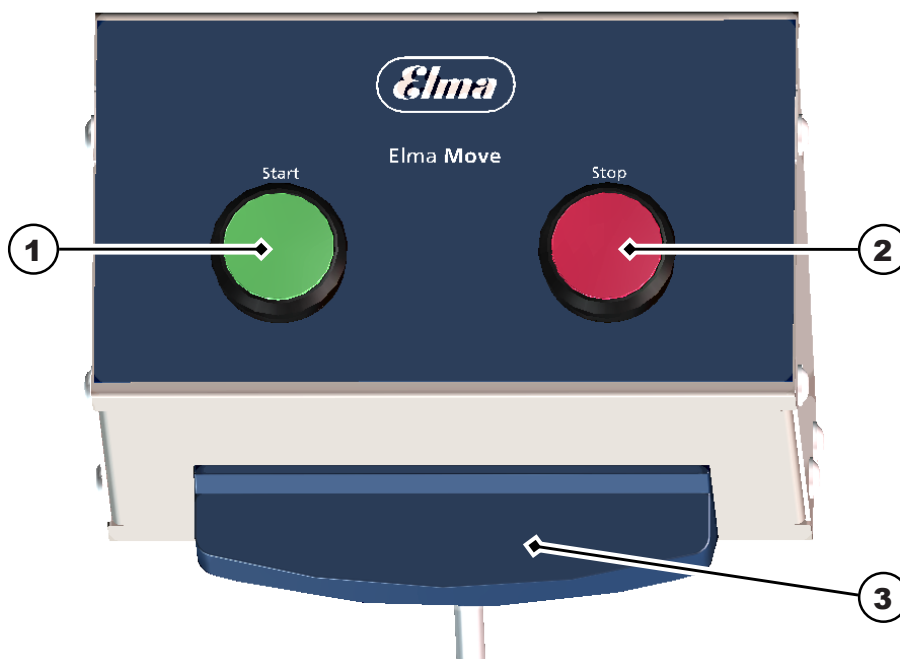


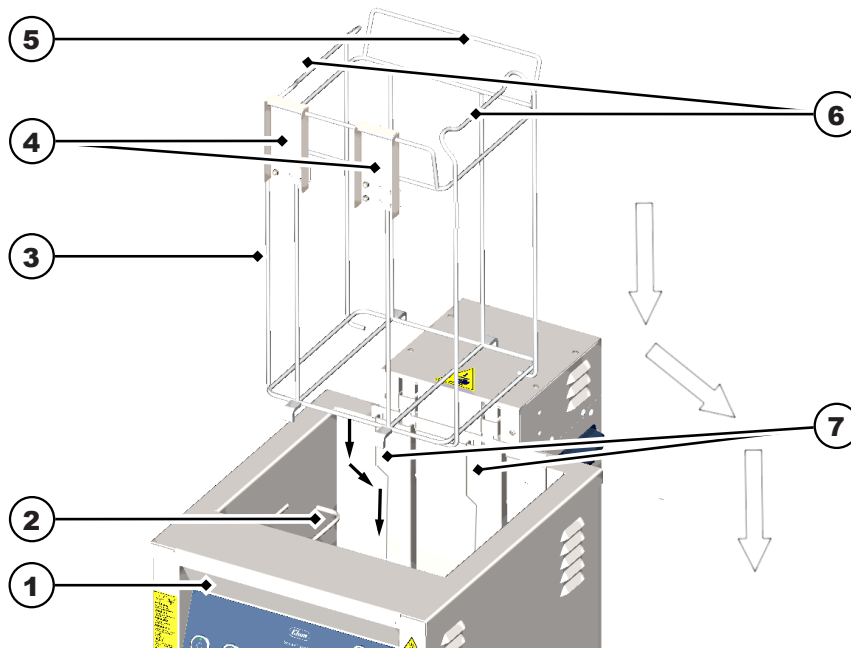
Illustration 4: Control unit

- 1 Press the **Start button** to start the unit (the button lights up green during operation)
- 2 Press the **Stop button** to stop the unit
- 3 **Handle** for attaching/removing the control unit to/from a magnetic surface

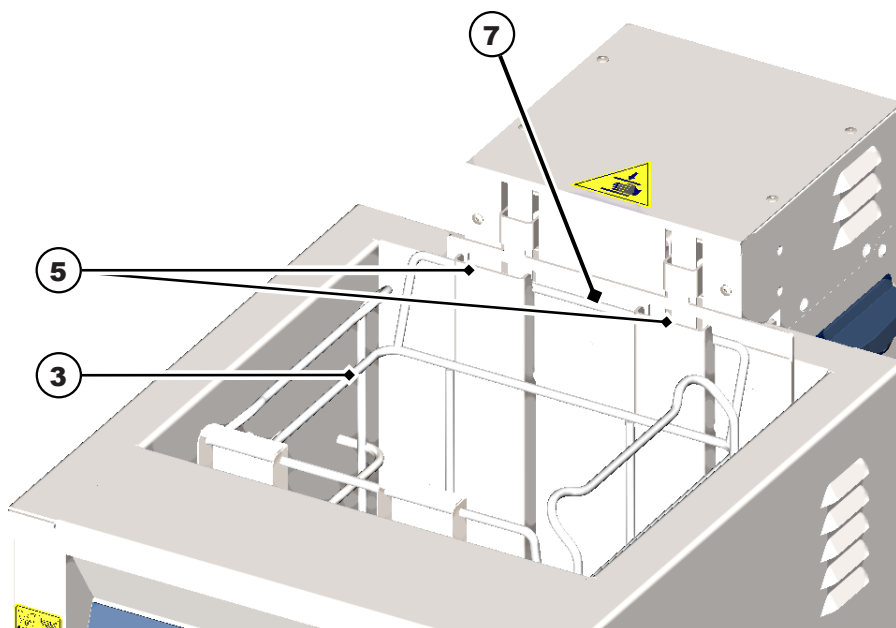
11.2 Insert a basket

- ✓ The ultrasonic unit (1) is ready for operation.
- ✓ The protector set (4) is installed.
 - ⚠ **CAUTION! Risk of crushing, do not use the basket without the protector set.**
- ✓ The Elma Move oscillation is switched off.
- ✓ The basket (3) is loaded with the parts to be cleaned.
 - ⚠ **CAUTION! Do not exceed maximum total weight for basket!**

1. Lift the basket (3) using the handles (6).



2. Hang the basket (3) in the basket holder (7) in the direction of the arrows, moving the basket past the bracket guard (2).



3. Check to ensure that the basket (3) bracket (7) is correctly mounted in the basket holder (5).
 ➔ The basket is inserted. Oscillation can be started.

11.3 Starting/stopping Elma Move

- ✓ The Elma Move is ready for operation.
 - ✓ The connected ultrasonic unit is ready for operation.
 - ⚠ **CAUTION! Check to ensure that the ultrasonic unit's lockable rollers are locked.**
 - ✓ The connected ultrasound unit is full.
 - ✓ The protector set is installed on the basket.
 - ✓ The basket (original accessory) is inserted in the basket holder.
 - ⚠ **WARNING! Check to ensure that the basket is correctly inserted into the basket holder.**
1. Press the **Start** button to start the Elma Move.
 - ⇒ The **Start** button will light up green and the basket will move up and down in the cleaning bath.
 2. Press the **Stop** button to stop the unit
 - ⇒ The basket will come to a standstill and the green **Start** button will go out.
 3. Unplug the unit from the power supply for extended periods of non-use.
 - i NOTE! Only disconnect the power supply while the unit is in standby mode.**
- The Elma Move has started/stopped.

12 Servicing



CAUTION

Faulty power cord

Electric shock or damage to the device

- Check the power cord regularly for damage.



NOTICE

Repairs and maintenance work that require opening the unit may only be carried out by authorised electrical specialists.

- Contact the manufacturer or supplier.

12.1 Replace the network cable

- ✓ The network cable or plug contacts are visibly damaged.
 - Replace damaged network cables immediately.
 - i NOTE! Removable network cables may not be replaced with insufficiently measured network cables!**
- The network cable has been replaced.

12.2 Clean enclosure

- ✓ The enclosure is dirty.
 - ✓ The network cable is unplugged.
 - Wipe all surfaces using a damp cloth.
 - ⚠ **WARNING! Do not spray the outside of the unit with water.**
- The enclosure has been cleaned.

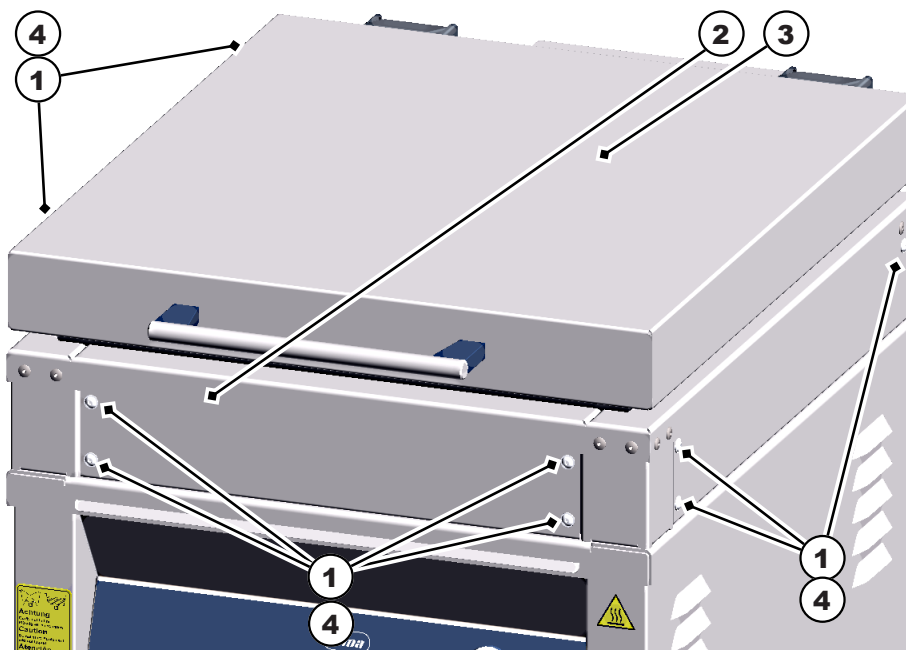
12.3 Cleaning ventilation slots

- ✓ The ventilation slots are dirty (e.g. dust build-up).
- ✓ The power cord is unplugged.
 - Wipe away dust build-up with a cloth or use a vacuum cleaner if needed.
- ➔ The ventilation slots are now free from dust. Sufficient ventilation of the unit is guaranteed.

12.4 Drying the frame

To increase the service life of the unit, keep the unit clean and dry. We recommend regularly opening the frame to dry the accumulated condensation on the inside of the frame.

- ✓ The frame (2) is mounted. The frame is available as an accessory for the ultrasonic unit with sound-protection cover (3).
- ✓ The mains plug is unplugged.
 1. Loosen the cover hex socket screws (1).



2. Open the covers (4).
 3. Wipe dry the inside of the frame (2) with an absorbent cloth.
 4. Perform the process in reverse to close the covers (4).
- ➔ The frame is dry.

12.5 Checking screws

Regularly check all screws used to install the unit to ensure they are tight and tighten if needed.

13 Disassembly

Two persons are recommended for disassembling the unit.

- ✓ The connected ultrasonic unit is empty.
- ✓ The basket holder is now in the lowest position.
 1. Unplug the mains plug.
 2. Remove the basket holder from the drive unit.
 3. If needed, unscrew the sound-protection cover (see service information, changing sound-protection cover).
 4. If needed, unscrew and remove the optional frame.
 5. Remove the control unit.
 6. Unscrew and remove the drive unit.
- ➔ The Elma Move is disassembled.

14 Disposal

CAUTION

Once the unit has reached the end of its service life, ensure that the unit and accessories are disposed of safely and correctly:



- Clean and disinfect the old device and accessories before disposal.
- Do not dispose of old devices with household waste, but instead at the local collection and disposal points.
- Secure the old device against unauthorised access until removal; if necessary, dispose of the power cable separately.
- Observe regionally applicable disposal directives.
- Data protection notice: The end user is responsible for deleting personal and confidential data from the unit being discarded.