

# Operating and installation instructions

english

## Elmasonic xtra ST accesories

### Elma Rinse



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Subject to technical and visual modifications.

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# 1 About this manual

**IMPORTANT** 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.

# 2 Proper use

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

- Elmasonic xtra ST
- Elmasonic Select 500/900

The Elma Rinse is used for part pre-cleaning and post-cleaning. Parts are cleaned prior to or after cleaning with tap water or DM water (demineralised water) depending on the application. Parts are rinsed using spray guns with replaceable nozzles. Depending on the application, the respective spray guns can be used with a flat jet or water jet nozzle.

The filter system filter cartridge targets and removes lime-forming ions and particles from the tap water. This results in partially demineralised water for perfect rinse results.

An integrated display shows the filter cartridge's current level of deterioration and tells users when a new order is required and when the cartridge next needs to be changed.

- The Elma Table accessory makes rinsing parts even easier.

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
<b>DANGER</b>	Immediate danger	Death or serious injury
<b>WARNING</b>	Possible dangerous situation	Death or serious injury
<b>CAUTION</b>	Possible dangerous situation	Slight injuries, damage to components or units
<b>NOTICE</b>	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 nameplate

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

### 3.3 Safety information for electrical energy

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

- Do not connect the unit's power pack to the power supply if the connection cable or power pack casing is visibly damaged.
- The mains voltage and the connected load on the power pack nameplate must correspond to the on-site connection conditions.

### 3.4 Safety information for filter system

- Drinking water within the water inlet temperature range stated in the technical data must be used exclusively for the Elma Rinse by Elector water filter system. Water containing microbiological particles or water of unknown microbiological quality without suitable sterilisation must NOT be used.
- The filtered water is not suitable for use in the preparation of food and beverages.
- Where there is an official boil water notice, the filter system must be deactivated. Once this notice has been lifted, the filter cartridge must be replaced and the connections must be cleaned.
- BRITA does not recommend deactivating the filter system for extended periods. If left to stagnate for longer than four weeks, the filter should be rinsed with at least 120 litres of water. Alternatively, the filter should be exchanged. Please note that the maximum period of use for filter cartridges is 12 months.
- The filter system is not resistant to highly concentrated cleaning agents (e.g. bleaches, chlorinated solvents, strong oxidising agents). Such cleaning agents must not come into contact with the filter system.
- The filter system must not be opened or removed during operation. The filter cartridge must not be opened.
- The filter system's pressure vessel and pressure vessel lid are designed with a service life of 10 years (from date of installation). After 10 years, the pressure vessel and cover must be replaced. The hoses must be replaced every five years as per the schedule.

### 3.5 Safety-related installation information

- The end unit operated with the filter must be lime-free prior to installation.
- Keep the filter system away from direct sunlight and protect it from mechanical damage. Do not install near heat sources and open flames.
- A shut-off valve must be installed before the filter system inlet hose.
- If the water pressure is higher than 6.9 bar, a pressure reducer must be installed before the filter system.
- A type-tested non-return valve certified by the DVGW (German Association for Gas and Water) must be installed on site on the water inlet of the filter head.
- All parts must be installed in line with the country-specific installation guidelines for drinking water facilities.

## 4 Technical data

Elma Rinse	Unit	
<b>Mechanical data</b>		
<b>Filter system</b>		
Max. external dimensions W/D/H	mm	255/288/550
Weight(Dry/wet)	kg	18/24
Total weight	kg	22.5/28.5
Operating pressure	bar	2–max. 6.9
Nominal flow	l/h	300
Pressure loss with nominal flow	bar	0.45
Operating positions	–	Vertical
Inlet connection	Inches	G 1–G $\frac{3}{4}$ , alternatively G $\frac{3}{4}$ –G $\frac{3}{4}$
<b>Wall mount</b>		
Max. external dimensions W/D/H	mm	225/275/445
Drilled hole spacing	mm	80
Height min. screw position	mm	345
Height max. screw position	mm	1,200
<b>Electrical data</b>		
Mains voltage $\pm 10\%$	V ~	110–240
Mains frequency	Hz	50/60
<b>Ambient conditions</b>		
Temperature (transport)	°C	-15–+60
Temperature (operation, storage)	°C	+5–+40
Air pressure (transport, storage)	hPa	500–1,010
Permissible relative humidity (transport,	% r.h.	10–80; non-condensing
Permissible relative humidity (operation)	% r.h.	80; non-condensing under fluctuating temperatures
Max. perm. altitude (operation)	m above sea level	+2,000

## 5 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.

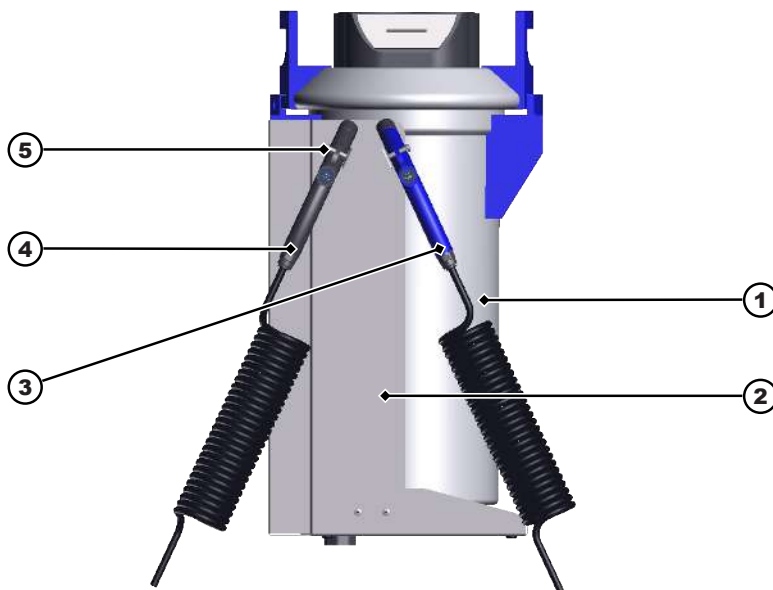
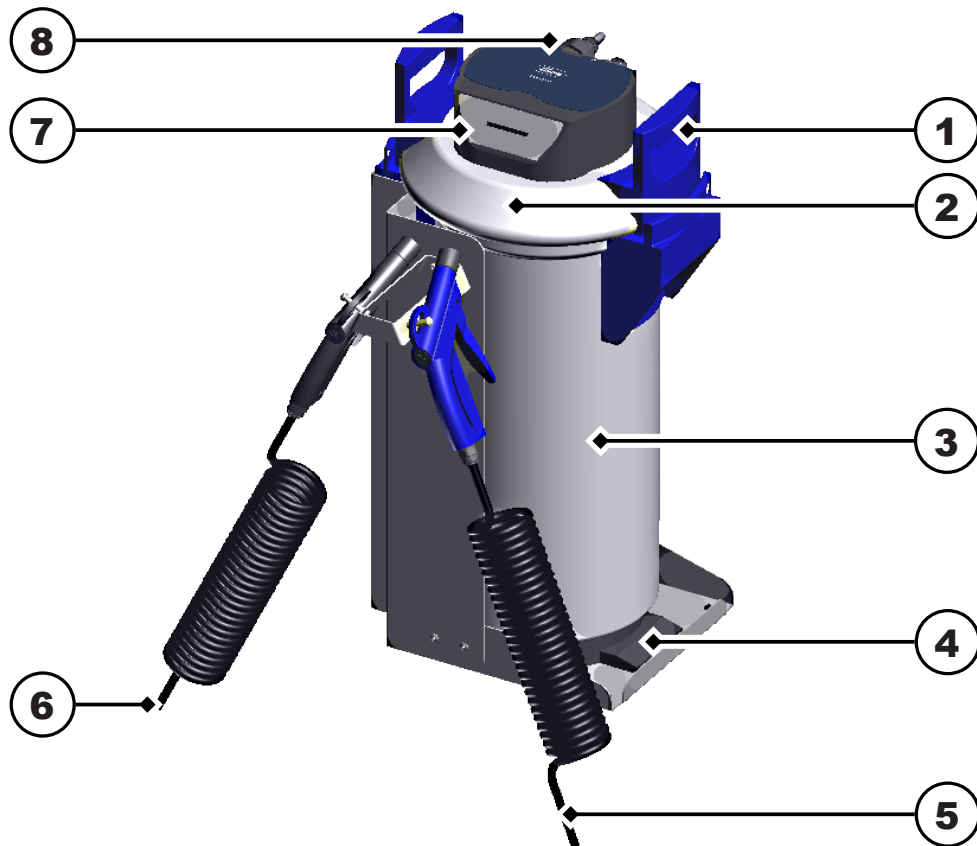


Illustration 1: Product contents

1	<b>Filter system</b> , see also manual for Elma Rinse by Elector
2	<b>Wall mount</b> for filter system (with screws and dowels for mounting on the wall)
3	<b>Hand spray</b> with spiral hose for demineralised water with flat jet nozzle
4	<b>Hand spray</b> with spiral hose for tap water with water jet nozzle
5	<b>Mounting</b> for hand sprays (for installation on wall mount or Elma Table accessory)
6	<b>Spiral hose</b> for connection to the on-site tap water supply (not pictured)
7	<b>T plug-connector</b> with fastening screw (not pictured)
8	<b>Hose piece</b> (not pictured)
9	<b>Installation wrench</b> for replacing spray gun nozzles (not pictured)
10	1 x replacement <b>flat jet nozzle</b> (not pictured)
11	1 x replacement <b>water jet nozzle</b> (not pictured)
12	<b>Mains plug</b> for filter system (not pictured)
13	<b>Operating and installation instructions</b> (not shown)



## 6 Description



*Illustration 2: Elma Rinse description*

- 1 **Lid handle**
- 2 **Pressure vessel lid**
- 3 **Pressure vessel** for filter cartridge
- 4 **Foot plate**
- 5 **Spiral hose** with hand spray, connect to the **OUT** (DM water) connection
- 6 **Spiral hose** with hand spray, connect to **IN** tap water connection
- 7 Filter capacity **display**
- 8 **Connections** for tap water **IN** and DM water **OUT** and **power cord**

## 7 Install and connect

### 7.1 Notes on installation site

The unit is designed to be set up 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 clear from walls or other spatial objects by ~10 to 15 cm.
- Electrical connection conditions:
  - Splash-proof earthed socket near the unit (see technical specifications for cable length).
  - 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).
- Wastewater connection requirements:
  - There must be a sink, or alternatively a bucket that can hold min. 10 l of liquid, near the installation site.

### 7.2 Install wall mount

Wall mount for installation on the wall, ground or as a hanging installation.

**NOTICE! The wall must be able to take four times the weight of the filter system.**

- ✓ Prior to fixing into place, it must be ensured that the display is visible and the filter cartridges can be easily replaced. Positioning must also ensure that the hand sprays are accessible.
1. Drill two drill holes  $\varnothing 6$  mm at a distance of  $W = 80$  mm (3) horizontally into the wall. Ensure height between min. 345 mm (1) and max. 1,200 mm (2).
  2. Install the dowel.
  3. Screw in the screws.
  4. Hang the wall mount on the screws.

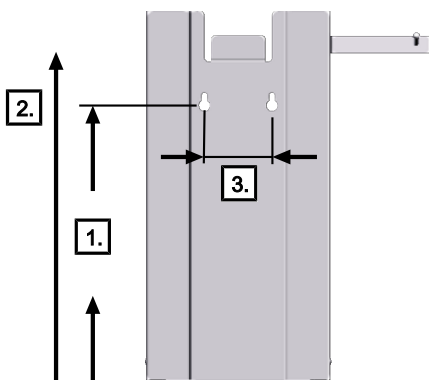


Illustration 3: Wall mount

- ➔ The wall mount is installed.

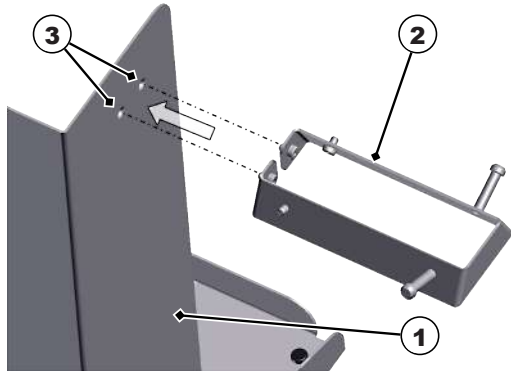
#### See also

- 📄 Technical data [▶ 7]

### 7.3 Install mounting

Tools required: Hex key 3 mm

- ✓ Mounting is to hand.
  - ✓ Required space and installation situation is ensured.
1. Mount the mounting for the spray guns (2) (can be mounted on the wall mount on the right or left (1)).



2. Fasten the mountings to the designated drill holes (3) using the provided screws.
- ➔ The mountings are installed.

### 7.4 Install water connection

Connect the water connection and the hand sprays as described.

**⚠ WARNING! The maximum tightening torque of 15 Nm must not be exceeded for the connections. Ensure that the O-ring in the connection head is correctly positioned!**

**⚠ CAUTION! Check that the connections are working correctly and are free of leakages before commissioning!**

**NOTICE! We recommend having the connections installed by a skilled installation professional!**

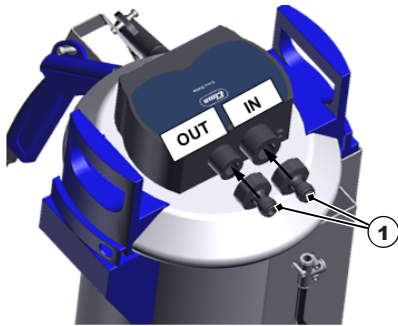
Tools required: Pipe wrench

- ✓ Hand sprays for tap and DM water with spiral hose are to hand.
- ✓ The spiral hose for on-site tap water is to hand.
- ✓ The T plug-connector is to hand.
- ✓ The three screw joints for the **In** and **Out** connections and the on-site **water connection** are to hand.
- ✓ The hose piece for the **IN** connection is to hand.
- ✓ The filter system's transport safety is removed, the filter cartridge is installed and the pressure vessel lid is mounted.

**NOTICE! Please refer to the handbook for the Elma Rinse by Elector filter system!**

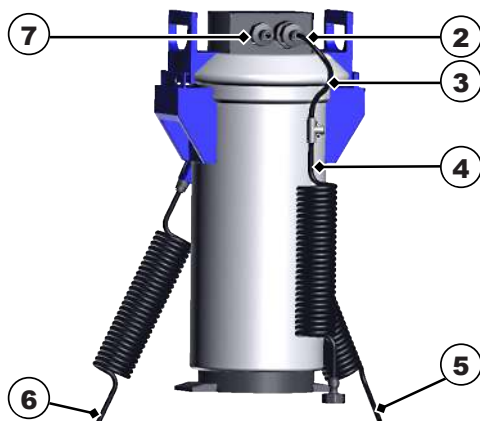
- ✓ An on-site tap water connection is available. For connection conditions:

**⚠ CAUTION! Please refer to the handbook for the Elma Rinse by Elector filter system!**



1. Hand tighten the two screw joints (1) onto the **IN** and **OUT** connections. Screw one additional screw joint onto the on-site water connection.

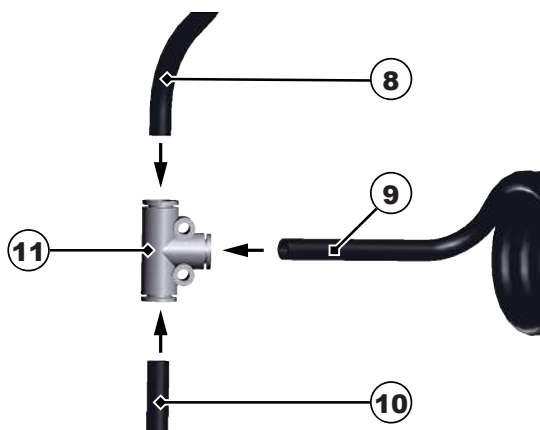
**NOTICE! Tighten the screw joints up to the limit stopper to ensure the interior flat seal is leak-tight.**



2. Push the spiral hose end (5) with hand spray for DM water into the **OUT** screw joint (6).  
⇒The hose locks into place.
3. Push the short hose piece (3) into the **IN** screw joint (2).  
⇒The hose locks into place.
4. Push the spiral hose connection (4) for the on-site tap water supply into the T plug-connector (11).  
⇒The hose locks into place.

⇒Incorrectly mixing up the **IN** (2) and **OUT** (6) connections leads to filter system malfunction.

**NOTICE! Please note: IN (2) NOTICE! is for connection to the on-site water supply and OUT (6) NOTICE! is the connection for filtered water (DM water)!**



5. Push the hose ends (8) for the **IN** connection, (9) tap water hand spray and (10) on-site water supply connection into the T plug-connector (11) until they lock into place.
6. Finally, push the other end of the spiral hose (9) into the screw joint for the on-site water supply.
7. Turn on the on-site water supply.

8. Vent the filter system by holding down the hand spray until liquid flows out.

⇒ Check the connections for seal tightness.

9. If necessary, seal any leaks found.

➔ The water supply and hand sprays are installed.

## 7.5 Install filter system

✓ The filter system (3) is installed and vented.

**NOTICE! Please refer to the manual for the Elma Rinse by Elector filter system!**

✓ The wall mount (4) is installed.

1. Install the filter system onto the wall mount using the handles (1).

**⚠ CAUTION! Please ensure that hoses and cables do not get caught during installation!**

2. The filter system (3) can be installed onto the wall mount in two different positions.

**NOTICE! Check to ensure that the display (2) on the pressure vessel lid is visible at the installation location.**

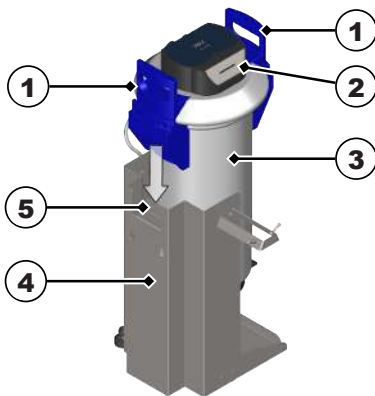


Illustration 4: \*Figure without hoses and cables

3. To ensure that the filter system is securely fitted, hook the handle (1) on the wall mount (5).

**⚠ CAUTION! Check that the handle is correctly positioned on the wall mount to prevent the filter system from falling out.**

➔ The filter system is installed on the wall mount.

**NOTICE! The filter system does not need to be removed to replace the filter cartridge!**

## 7.6 Replace hand spray nozzles

Use hand spray with a flat jet or water jet nozzle.

Tools required: Installation wrench

✓ The hand spray (1) for tap water or DM water is to hand.

✓ Turn off on-site water supply.

1. Screw off the nozzle (3) using the installation wrench keeping hold of the hand spray head (2).

2. If necessary, screw off the hand spray head (2) to check that the seal ring is correctly positioned.



3. Screw on the desired nozzle (3) using the installation wrench.

→ The nozzle has now been replaced.

**NOTICE! In the event of leaks, check to ensure the seal ring in the hand spray head (2) NOTICE! is correctly positioned.**

### 7.7 Connect the power pack

✓ Ensure that the required power connection is available.

1. Plug the power pack connector into the unit's connection.
2. Route the power cord in such a way that it does not pose a tripping hazard, cannot be damaged and is not exposed to moisture.
3. Connect the plug. The plug must be easily accessible so that it can be easily disconnected in emergencies.

→ The power supply has been connected.

## 8 Operate

✓ The device is completely assembled and connected.

1. Turn on the on-site water supply.
2. Plug in the mains plug.
3. Refer to the filter capacity display:  
**Okay** green bar – the unit is ready to use.  
**Order** yellow bar – order filter cartridge.  
**Change** red bar – change filter cartridge.
4. **NOTICE! Please refer to the Elma Rinse by Elector filter system manual!**
5. **⚠ WARNING! The filter system must not be opened or removed during operation.**  
 ⇒ The unit is ready to use.
6. Spray off objects with DM water (fully demineralised water) with the blue hand spray.
7. Spray off objects with tap water with the black hand spray.

→ The unit has been operated.

**NOTICE! For long periods without use, turn off the on-site water supply and unplug the mains plug.**

## 9 Change filter cartridge



### NOTICE

#### Risk of damage to property

Please refer to the included manual for the Elma Filter by Elector water filter system!

Filter cartridges must be replaced every six to 12 months and no longer than 12 months following commissioning, regardless of the level of deterioration of the filter cartridge. Cartridges that are no longer functional must be replaced earlier (Chapter 7).

**⚠ CAUTION! Carefully inspect all removed parts when replacing cartridges! Defective parts must be replaced and contaminated parts must be cleaned! Please refer to the operating and safety instructions prior to replacing parts. If previously stored at below 0 °C and the original packaging has already been opened, the product must be stored at room temperature at the place of installation for at least 24 prior to commissioning.**

## 10 Troubleshooting

Fault	Possible causes	Remedy
No water flow	Water feed closed	Water feed open
Water leak at connections	<ul style="list-style-type: none"> <li>• Connection is not screwed up to limit stopper</li> <li>• Seal is not positioned correctly</li> <li>• Connection is defective</li> </ul>	<ul style="list-style-type: none"> <li>• Check connection</li> <li>• Check seal is correctly positioned</li> <li>• Replace connection</li> </ul>

Filter capacity display requests filter change after installing new filter cartridge.

Check IN and OUT connections

If necessary, fix connections

For further troubleshooting, see also Elma Rinse by Elector manual.

## 11 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.

### NOTICE



#### Disposal of filter cartridge

Used filter cartridges can be returned to the BRITA address listed on the back of the pack at delivery or can be disposed of in compliance with the respective applicable regulations and provisions.



# Elma Rinse

by elector®

Wasserfiltersystem für technische Anwendungen/

Water filter system for technical applications/

Système de filtration d'eau pour applications techniques/

Sistema di filtraggio dell'acqua per applicazioni tecniche/

Sistema de filtración de agua para aplicaciones técnicas

<b>Handbuch</b>	<b>deutsch</b>
<b>Manual</b>	<b>english</b>
<b>Manuel</b>	<b>français</b>
<b>Manuale d'uso</b>	<b>italiano</b>
<b>Manual</b>	<b>español</b>

Stand 11/22

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- 6 Austausch und Entsorgung der Filterkartusche
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- 6 Remplacement de la cartouche filtrante et élimination
- 7 Capacité de filtrage
- 8 Entretien
- 9 Dépannage
- 10 Données techniques
- 11 Références

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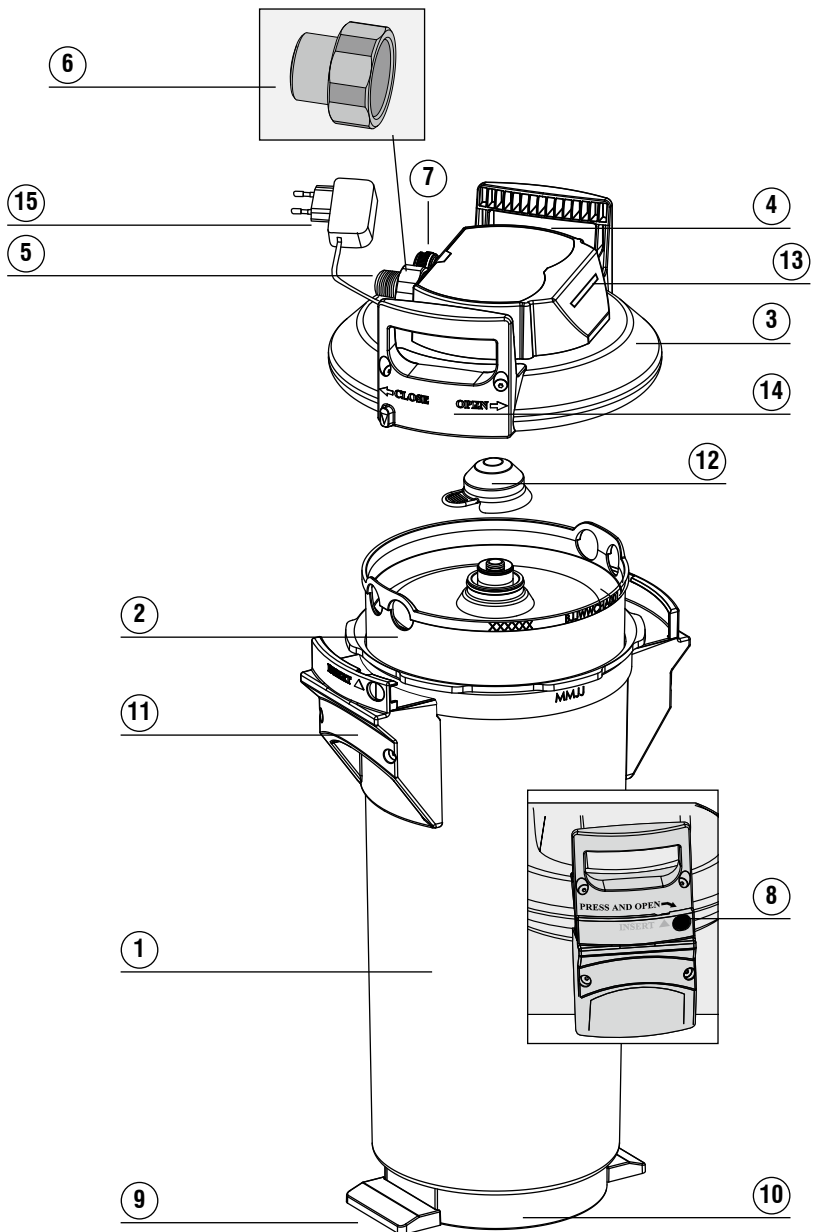
- 1 Vista general de conceptos
- 2 Información general
- 3 Indicaciones de funcionamiento y de seguridad
- 4 Instalación
- 5 Puesta en marcha de un filtro nuevo
- 6 Sustitución y eliminación del cartucho filtrante
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- 7 Capacità del filtro
- 8 Manutenzione straordinaria
- 9 Eliminazione di guasti
- 10 Dati tecnici
- 11 Numeri d'ordinazione



EN

# 1 Glossary of Terms

- ① Pressure tank
- ② Filter cartridge
- ③ Pressure tank lid
- ④ Connection head
- ⑤ Inlet connection
- ⑥ Reducing nipple 1"–3/4"
- ⑦ Outlet connection 3/4"
- ⑧ Lock security
- ⑨ Floor stand
- ⑩ Ejector socket
- ⑪ Mantle handles
- ⑫ transport protection cap
- ⑬ Conductivity meter
- ⑭ Head handles
- ⑮ Power adapter

## 2 General Information

### 2.1 Function and field of use

The Elma Rinse water filter system optimizes tap water for technical applications by deionization of water with ion-exchange resins.

By using the Elma Rinse filter cartridge, the water is filtered by the ion-exchange resin in a flow through process, thus reducing the total amount of dissolved salts. This avoids impurities that might appear on cleaned surfaces and avoids residues on important machine parts after drying. It helps to extend the service life of the devices used.

### 2.2 Warranty Terms

The Elma Rinse filter system is subject to the statutory two-year warranty. A warranty claim can only be asserted if all the instructions in this manual are followed and observed.

### 2.3 Storage / Transport

Observe the ambient conditions for storage and transport in the technical data (chapter 10).

The manual is to be understood as part of the product and must be kept for the entire service life of the filter system and passed on to subsequent owners.

### 2.4 Recycling / Disposal

The packaging material of this product is suitable for recycling and can be reused. Please dispose all materials in accordance with local regulations.

Exhausted filter cartridges can be disposed of in accordance with local ordinances and regulations.

## 3 Operating and Safety Instructions

### 3.1 Qualified Personnel

Installation, filter replacement and maintenance of the filter system may only be carried out by qualified personnel.

### 3.2 Intended use

Proper and safe operation of the product requires the installation, use and maintenance procedures described in this manual.

### 3.3 Disclaimer

The installation must be carried out exactly as described in this manual. Elma is not liable for any damage, including consequential damage, that may result from incorrect installation or incorrect use of the product.

### 3.4 Specific Safety Instructions

- Only drinking water within the water inlet temperature range specified in chapter 10 may be used for the Elma Rinse water filter system. Under no circumstances may microbiologically contaminated water or water of unknown microbiological quality be used without appropriate sterilization.
- The filtered water is not suitable for the preparation of food and drinks.
- In the event of an official request to boil the tap water, the filter system must be taken out of service. After the end of the boil prompt, the filter cartridge must be replaced and the connections cleaned.
- Elma recommends not taking the filter system out of service for a long period of time. After periods of stagnation of more than 4 weeks, the filter should be rinsed with at least 120 liters of water or alternatively replaced. Please also note the maximum service life of the filter cartridge of 12 months (chapter 6).
- The filter system is not resistant to highly concentrated cleaning agents (e.g. bleach, chlorinated solvents, strong oxidizing agents) and must not come into contact with them. The filter system must not be opened or dismantled during operation. The filter cartridge must not be opened.
- The pressure vessel and pressure vessel cover of the filter system are designed for a service life of 10 years (from the date of installation). After 10 years, an exchange must take place. The hoses must be replaced regularly after 5 years.

### 3.5 Safety-related assembly instructions

- The end device operated with the filter must be lime-free before installation.
- Protect the filter system from direct sunlight and mechanical damage. Do not install the filter system in close distance to heat sources and open flames.
- A shut-off valve must be installed before the inlet hose of the filter system.
- If the water pressure is greater than 6.9 bar, a pressure reducer must be installed upstream of the filter system.
- A DVGW type-tested non-return valve is installed at the water inlet of the filter head.
- All parts must be installed in accordance with the country-specific guidelines for installing drinking water facilities.

## 4 Installation

**⚠ Attention:** Before installation, read the technical data (Chapter 10) and the operating and safety instructions (Chapter 3). After storage below 0 °C, the product must be stored with the original packaging open for at least 24 hours before commissioning at the ambient temperature of the installation location.

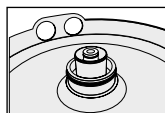
### 4.1 Scope of delivery

Before installation, remove the entire scope of delivery from the packaging and check that it is complete:

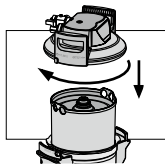
- 1 x Pressure tank ①
- 1 x Pressure tank lid with conductivity meter ③, ⑬
- 1 x Filter cartridge ②
- 1 x Users manual
- 1 x Reducing nipple 1"-3/4" ⑥
- 1 x Power supply ⑮

If parts of the scope of delivery are missing, please contact the Elma office responsible for you (see back cover).

### 4.2 Assembly of the pressure tank and pressure tank lid



- Stand with both feet on the floor stand ⑨.
- Raise the pressure tank ① and turn it clockwise until the mantle handles ⑪ are positioned above kick bar of the floor stand ⑨.
- Remove transport protection cap ⑫ from the filter cartridge ②.
- Check o-ring gasket of filter cartridge ② for proper installation, dirt or damage.



**Please note:** The cartridge connection is treated with with food-safe lubricant.

- Step with both feet on the floor stand ⑨ and place the pressure tank lid ③ on the pressure tank ①. Position the arrow marking at the head handles ⑭ in alignment with the „INSERT“ gap.
- Push pressure tank lid ③ to the bottom and turn it clockwise until it engages into the lock security ⑧.

### 4.3 Assembly of the inlet and outlet hoses

**Note:** The inlet and outlet hoses are not included in the standard scope of delivery. The use of Elma hose sets is recommended (chapter 11).

- Fit the inlet hose to the inlet ⑤ of the connection head ④ and the outlet hose to the outlet ⑦ of the connection head ④.
- Note:** The „IN“ input and „OUT“ output of the connection head are equipped with o-rings as gaskets; therefore no additional flat seals may be used. Make sure the o-rings are placed correctly.

**⚠ Attention:** The maximum tightening torque at the 1" and 3/4" connections must not exceed 15Nm! Only hose connections that are suitable for flat seals may be used. Hoses with conical screw connections damage the filter head connections and void the warranty! Before assembly, note the direction of flow on the top of the filter head, IN= water inlet, OUT= water outlet. Before installation, note the installation dimensions and operating position (Chapter 10). If non-original hoses are used, the supplied reducer 1"-3/4" ⑥ must be used to ensure correct sealing of the non-return valve.

#### 4.4 Commissioning of the conductivity meter

Ensure that the plastic cap with the integrated conductivity meter (13) is firmly inserted into the guide rail of the pressure tank lid (3).

Plug the power supply (19) into the plug adapter located next to the inlet connection (5) of the pressure tank lid. As soon as you plug the mains adapter into a 230 V power supply socket, the conductivity meter is supplied with voltage.

The conductivity meter (13) starts measuring immediately, which is indicated by the LEDs in the display area of the conductivity meter (13) lighting up.

The interpretation of the LED display is described in Chapter 7.

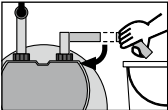
## 5 Commissioning of a new filter

### 5.1 Determination of the filter capacity

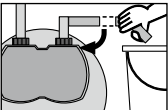
- Determination of the filter capacity using the capacity tables ( Chapter 7) taking into account the conductivity. The conductivity information required can be obtained from the local water supplier. Alternatively, the conductivity can be measured on site using a suitable conductivity meter.

### 5.3 Flushing and venting of the filter cartridge

**Note:** A bucket with a capacity of at least 10 liters is required for flushing/venting.



- Place the bucket on the outlet hose and open it.
- Run water into the water filter system and flush with at least 10 liters.
- Discard rinse water.
- Check the system for any leaks.
- Note the installation date of the filter cartridge.





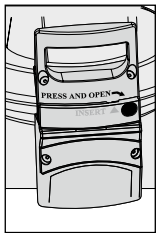
## 6 Replacement and disposal of the filter cartridge

The filter cartridge must be replaced after 6 to 12 months, at the latest 12 months after commissioning, regardless of how exhausted the filter cartridge is. If the capacity of the filter cartridge is already exhausted (chapter 7), it must be replaced earlier.

**⚠ Attention:** When replacing, carefully examine all dismantled parts! Defective parts must be replaced, contaminated parts cleaned! Before replacing, observe the operating and safety instructions (Chapter 3). After storage below 0 °C, the product must be stored with the original packaging open for at least 24 hours before use at the ambient temperature of the place of use.

### 6.1 Removing the filter cartridge

- Switch off the power supply to the conductivity meter ⑬ (pull out the mains plug ⑮).
- Shut off the water supply at the inlet connection ⑤.
- Lead the outlet hose into a bucket and release the pressure from the filter system. Catch the escaping water in a bucket.
- **Note:** If the amount of water that comes out exceeds 1 liter, the water supply is not completely closed or calcified. Please check the inlet valve for leaks!



- Stand with both feet on the floor stand ⑨ and open the pressure tank lid ③ by pressing the lock security ⑧ and simultaneously turning it anti-clockwise as far as it will go.
- Pull the pressure vessel lid ③ away vertically and put it to side.
- Continue to fix the floor stand ⑨ with your feet, turn the pressure tank ① counterclockwise and push the mantle handles ⑪ with both hands down.
- Remove the exhausted filter cartridge ② from the pressure tank ①.
- To drain the exhausted filter cartridge ②, place it in the sink with the connection pointing downwards (> 5 minutes).
- Close the exhausted filter cartridge ② with the transport protection cap ⑫ of the new filter cartridge.

### 6.2 Inserting the new filter cartridge

- Make new filter cartridge ② available.
- Put the filter into operation as described under 4.2 onwards.

### 6.3 Disposal of the used filter cartridge

- Dispose of cartridge contents in accordance with local and national regulations at landfill sites or in accordance with other usual methods for plastics at approved collection points. Controlled combustion is possible. Do not dispose of ingredient into drains or the surrounding area. In the delivered condition (cartridge not filled with water) the ingredient is not classified as hazardous waste (exception: UK).
- Waste number key according to EAK regulation for used material from fresh water treatment and food industry = 190905
- If Elma Rinse has been used to treat fresh water (process water), the cartridge can be disposed of with the residual waste (household waste) depending on the applicable local and national regulations (exception: UK).
- Waste number key according to EAK regulation for used material with harmful impurities = 190806

- If Elma Rinse was not used to treat fresh water and therefore contains harmful impurities, the cartridge must not be disposed of with the residual waste (household waste). Dispose of the cartridge as hazardous waste according to local and national regulations.
- In UK: Declare excess material as hazardous waste in accordance with the Control of Pollution (Special Waste) Regulations 1980 - SI 1709.

## 7 Filter capacity

**Note:** The capacities given are guide values that can vary by +/- 20% depending on the product volume flow, local water quality and machine type. The conductivity can be obtained from the local water supplier. Alternatively, the conductivity can be measured on site using a suitable conductivity meter.

### 7.1 Capacity Chart

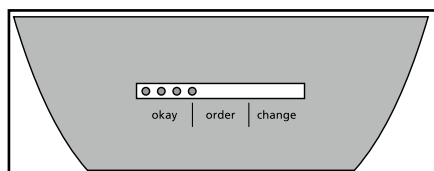
Capacity chart Elma Rinse

Conductivity of inlet water $\mu\text{S/cm}$	Volume L
100	3900
200	1950
300	1300
400	975
500	780
600	650
700	557
800	487
900	433
1000	390
1200	325
1400	278
1600	243
1800	216
2000	195

### 7.2 Filter capacity monitoring

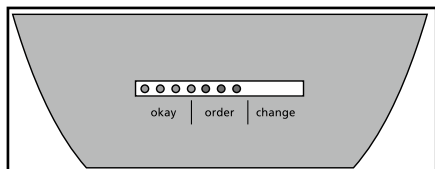
When the power supply is active, the conductivity meter ⑬ continuously measures the electrical conductivity of the treated water and displays the capacity status of the filter cartridge via colored LEDs.

**Note:** To assess the actual capacity, only the measurement in state of active water flow needs to be taken into account. The measurement may deviate when the water flow is stationary.



#### Illumination of the green LEDs

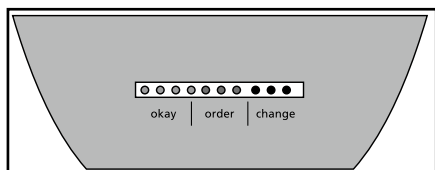
Very good water quality



### Illumination of yellow LEDs

Still good water quality.

However, order a new filter cartridge ② and keep it ready for replacement.



### Illumination of red LEDs

If a red LED lights up, the water quality is still acceptable. As soon as more red LEDs light up, the filter cartridge should be replaced.

**⚠ Note:** Assess capacity only when the water is running. When the water is standing still, various chemical and electrochemical reactions can lead to a different measurement.

## 8 Maintenance

Check the filter system regularly for leaks. Check the hoses regularly for kinks. Kinked hoses must be replaced.

The entire filter system must be replaced regularly after 10 years.

The hoses must be replaced regularly after 5 years.

**⚠ Attention:** Before replacing, observe the technical data (chapter 10) and the operating and safety instructions (chapter 3).

Clean the outside of the filter system regularly with a soft, damp cloth.


**⚠ Attention:** Do not use any material-incompatible substances (Chapter 3.4) or harsh, abrasive cleaning agents.

## 9 Troubleshooting

### 9.1 No water flow


Cause: Water supply closed.

Troubleshooting: Open the water supply at the upstream shut-off valve or inlet valve.

 **Attention:** The following errors may only be made by qualified personnel.

### 9.2 Little or no water flow despite open water supply


Cause: Line pressure too low.

Troubleshooting: Check line pressure. If the error persists despite sufficient line pressure, check the filter system and filter cartridge and replace if necessary.  **Attention:** Before replacing, observe the technical data (chapter 10) and the operating and safety instructions (chapter 3).

### 9.3 Leakage at fittings

Cause: Screw connections not fitted properly.


Troubleshooting: Check line pressure. Check all screw connections and assemble according to chapter 4. If the error persists, replace the filter system.

 **Attention:** Before replacing, observe the technical data (chapter 10) and the operating and safety instructions (chapter 3).

### 9.4 Leak after filter replacement

Cause: O-ring on filter cartridge is not seated correctly.

Troubleshooting: Check that the O-ring is correctly seated (Chapter 6.2).

 **Attention:** Before dismantling, observe the technical data (chapter 10).

## 10 Specifications

	<b>Water filter system Elma Rinse including filter cartridge</b>
<b>Operation pressure</b>	2 bar up to a maximum of 6.9 bar
<b>Water inlet temperature</b>	+4 °C to +30 °C
<b>Ambient temperature at storage / transport</b>	-20 °C to +50 °C
<b>Nominal flow</b>	300L/h
<b>Pressure loss at nominal flow</b>	0,45 bar
<b>Weight (dry / wet)</b>	18 kgs/24 kgs
<b>Dimensions (Width/Depth/Height)</b>	288 mm/255 mm/550 mm
<b>Installation dimensinos</b>	The bending radii of the inlet and outlet hose 2m, DN13, 3/4"-3/4" are 130mm and, depending on the spatial installation orientation and operating position, must be taken into account in addition to the dimensions of the complete system.
<b>Operational situation</b>	vertical
<b>Inlet connection</b>	G1"-G3/4", alternatively G3/4"-G3/4"
<b>Outlet connection</b>	G3/4"-G3/4"
<b>Power supply</b>	Plug-in power supply 7.5 W 12V / 0.63A Input voltage range: 90...264V AC (47...63Hz) Cable Length: 1.5m Incl. input plug adapter for Europe, USA/North America, Great Britain, Australia.

## 11 Order numbers

### Filter system Elma Rinse

<b>Article</b>	<b>elector® article-number</b>
Elma Rinse (System including filter cartridge)	41050_3
Elma Rinse filter cartridge	41053_2

### Accessories / spare parts

<b>Article</b>	<b>elector® article-number</b>
Power adapter suitable for Elma Rinse	82317
Conductivity meter Elma Rinse	41102_1
Pressure tank lid Elma Rinse (incl. conductivity meter and power adapter)	41073_1
Handle set	41077

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