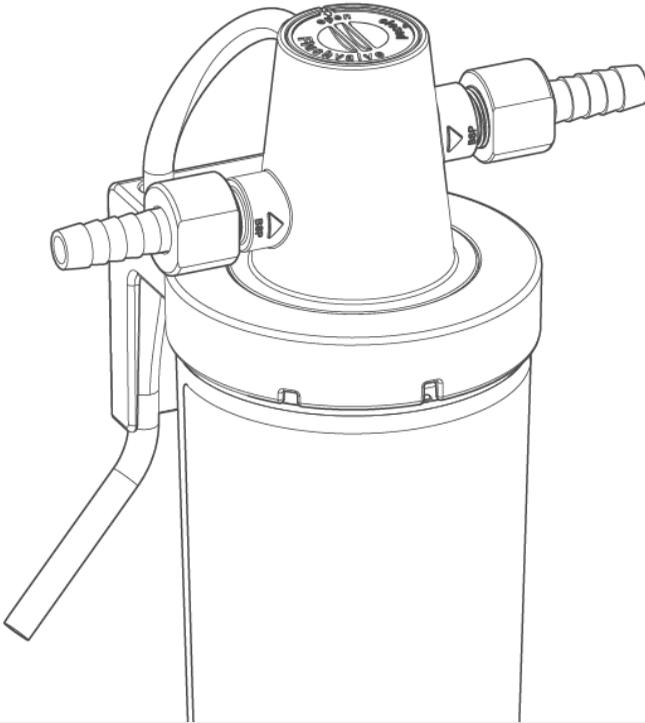


We understand water.



Water filter | clearliQ travel

Operation manual

produced for **ERWIN HYMER GROUP**

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1 Introduction

This manual is intended for owners/operating companies, operators, users as well as qualified specialists and ensures the safe and efficient handling of the product. The manual is an integral part of the product.

- ▶ Carefully read this manual and the instructions contained within it on the components before you operate the product.
- ▶ Adhere to all safety information and handling instructions given in this manual.
- ▶ Keep this instruction and all other applicable documents, so that they are available when needed.

Illustrations in this manual are for basic understanding and may differ from the actual version.

1.1 Validity of the manual

This manual applies to the following products:

- Water filter clearliQ travel

1.2 Other applicable documents

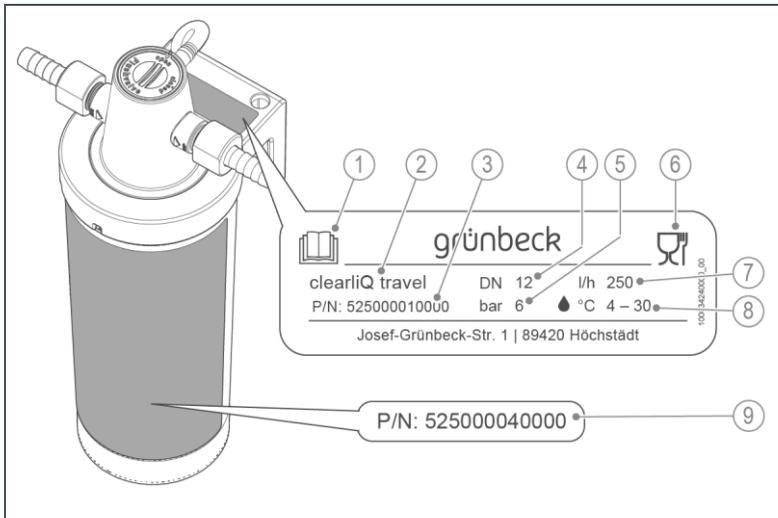
- Quick reference manual, order no.: 100039800000

1.3 Product identification

You can identify your product by means of the product designation and the order number on the type plate.

- ▶ Check whether the products indicated in chapter 1.1 correspond to your product.

The type plate is located on the mounting bracket on the filter head.



Item	Designation	Item	Designation
1	Observe operation manual	2	Product designation
3	Product no. Water filter as installation kit	4	Nominal connection diameter
5	Max. operating pressure	6	Food-safe label
7	Nominal flow	8	Water temperature
9	Product no. or order no. for filter cartridge or replacement cartridge		

1.4 Symbols used

Symbol	Meaning
	Danger and risk
	Important information or prerequisite
	Useful information or tip
	Written documentation required
	Reference to further documents
	Work that is only allowed to be carried out by qualified specialists

1.5 Depiction of warnings

This manual contains information that you must comply with for your personal safety. This information is highlighted by a warning sign and has the following structure:



SIGNAL WORD

Type and source of danger

- Possible consequences
- ▶ Preventive measures

The following signal words are defined depending on the degree of danger and may be used in this document:

Warning sign and signal word		Consequences when disregarding the information/instructions
 DANGER	Personal injuries	Death or serious injuries
 WARNING		Possible death or serious injuries
 CAUTION		Possible moderate or minor injuries
NOTE	Damage to property	Possible damage to components, the product and/or its functions, or anything in its vicinity.

1.6 Requirements on personnel

During the individual life cycle phases of the product, different people carry out activities on the product. The respective activities require different qualifications.

1.6.1 Qualification of personnel

Personnel	Prerequisites
Operator (vehicle driver)	<ul style="list-style-type: none"> • No special expertise • Knowledge of the tasks assigned • Knowledge of possible dangers in the case of incorrect behaviour • Knowledge of the necessary protection devices and protective measures • Knowledge of residual risks
Operator (vehicle owner)	<ul style="list-style-type: none"> • Product-specific expertise • Knowledge of statutory regulations for safety and accident prevention

Personnel	Prerequisites
Qualified specialist (automotive engineering)	<ul style="list-style-type: none"> • Professional training • Knowledge of relevant standards and regulations • Knowledge of detection and prevention of possible risks • Knowledge of statutory regulations on accident prevention • Extended product-specific expertise

1.6.2 Authorisations of personnel

The following table describes which activities are allowed to be performed by whom.

	Operator	Owner/operating company	Qualified specialist
Transport and storage		X	X
Installation and mounting			X
Start-up		X	X
Operation and handling	X	X	X
Cleaning	X	X	X
Inspection	X	X	X
Maintenance		X	X
Troubleshooting		X	X
Repair		X	X
Shutdown and restart		X	X
Dismantling and disposal		X	X

2 For your safety

2.1 Safety measures

- Only operate the product if all components are installed properly.
- Observe the installation regulations for the installation of fresh water installations in vehicles (caravans and motorhomes) according to the vehicle manufacturer.
- Observe the required installation dimensions according to the technical data.
- Do not make any changes or conversions to your product.
- Only use genuine spare parts for maintenance or repair. If unsuitable spare parts are used, the warranty for the product will be void.
- Observe the maintenance intervals (refer to chapter 8.2). Failure to comply can result in microbiological contamination of the fresh water installation in the vehicle.

2.1.1 Mechanical dangers

- Make sure that the product is installed or attached so that it cannot tip over and that the stability of the product is guaranteed at all times.

2.1.2 Hazards relating to pressure

- Components can be under pressure. There is a risk of injuries and damage to property due to escaping water and

unexpected movement of components. Regularly check the pressure lines and connections on the product for leaks.

- Before starting repair and maintenance work, make sure that all affected components are depressurised.

2.1.3 Group of persons requiring protection

- Children are not allowed to play with the product.
- This product is not intended to be used by persons (including children) with reduced capabilities, lack of experience or knowledge, unless they are supervised, have been instructed in the safe use of the product, and understand the resulting hazards.
- Cleaning and maintenance must not be carried out by children.

2.2 Product-specific safety instructions

- Only cold water of drinking water quality is allowed to be used to feed the fresh water system.
- The filter cartridge is not allowed to be opened or damaged.



WARNING

Contaminated drinking water due to stagnation

- Infectious diseases due to bacterial growth in the drinking water
 - ▶ Perform the following activities:
- The system must be flushed carefully after long periods of inactivity or after maintenance work (refer to chapter 7.1).
- If the water-carrying system of the recreational vehicle is taken out of service for a season, the complete system (fresh water tank, hose lines) must be drained (refer to chapter 10.1).
- If the water-carrying system of the recreational vehicle is taken out of service for a season, the filter cartridge must not be installed until the entire system has been put back into operation.

3 Product description

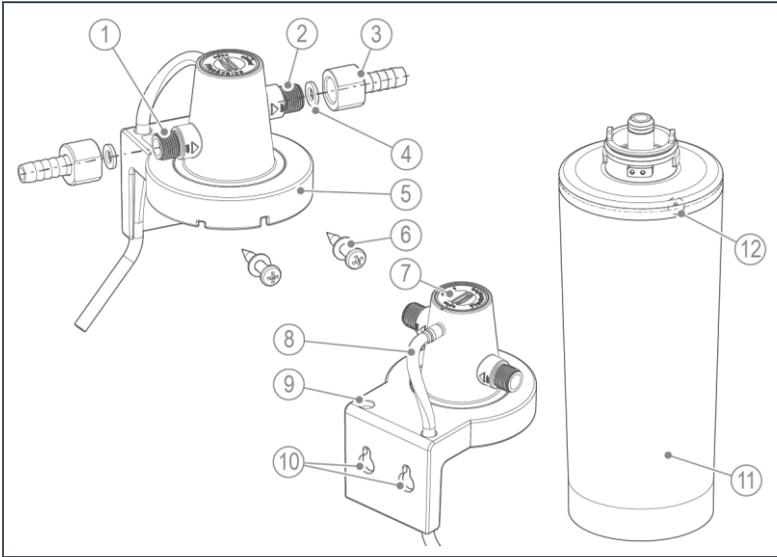
3.1 Intended use

- The water filter clearliQ travel is designed for the filtration of clear drinking water.
- The clearliQ travel produces hygienic fresh water in your caravan and motorhome.
- The functionality and service life of the clearliQ travel water filter are guaranteed when using drinking water in accordance with the German Drinking Water Ordinance (TrinkwV).

3.1.1 Foreseeable misuse

- The water filter clearliQ travel is not suitable for use in hot water.
- The clearliQ travel is not suitable for circulation water that is treated with chemicals.
- The clearliQ travel is neither suitable for oils, greases, solvents, soaps and other lubricating media, nor for the separation of water-soluble substances.
- The clearliQ travel is not suitable for generating drinking water from well water, river water or rainwater.

3.2 Product components



Item	Designation	Item	Designation
1	Water inlet (3/8")	2	Water outlet (3/8")
3	Hose fitting (3/8" x 12 mm)	4	Gasket
5	Filter head with mounting bracket	6	Fastening material
7	Flushing/pressure relief valve	8	Flushing hose
9	Hole for flushing hose	10	Fastening holes
11	Filter cartridge	12	Marking of the end position

3.3 Functional description

The water flows through the filter cartridge of the water filter, removing chlorine, discolouration, unpleasant odours and micro-organisms from the water.

Bacteria such as *Legionella pneumophila*, *Escherichia coli* and *Pseudomonas aeruginosa* are fixed to the hygiene element by electrostatic adsorption. This ensures germ removal with low pressure loss and energy input.

3.4 Accessories

Your product can be retrofitted with accessories. Erwin Hymer Group SE is at your disposal for further information.

Illustration	Product	Order no.
–	Individual adapters for other connections	please inquire

4 Transport and storage

4.1 Transport

- ▶ Transport the product in its original packaging only.

4.2 Storage

- ▶ Protect the product from the following impacts when storing it:
 - Moisture, wetness
 - Environmental impacts such as wind, rain, snow, etc.
 - Frost, direct sunlight, severe heat exposure
 - Chemicals, dyes, solvents and their vapours

5 Installation

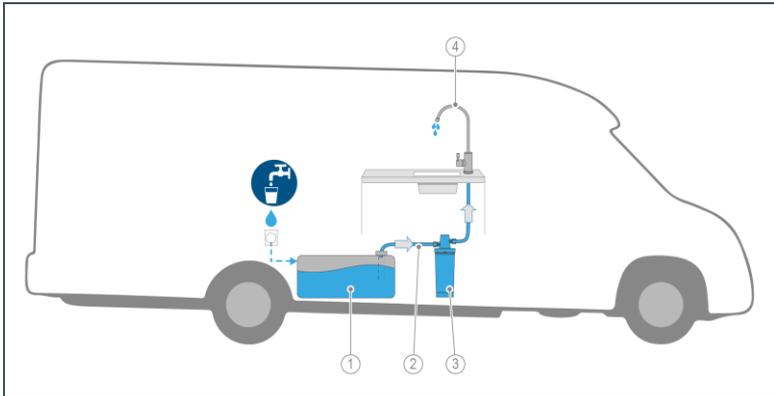


The installation of the water filter is only allowed to be performed by a qualified specialist from the recreational vehicle manufacturer.



Subsequent installation of the water filter is only allowed to be carried out by private persons in compliance with the regulations and specifications of this manual. The installer (as a private person) is responsible for the safety and functionality of the fresh water system.

The clearliQ travel water filter is installed in the cold water line after the fresh water tank and the pressure pump or immersion pump and before the distribution lines.

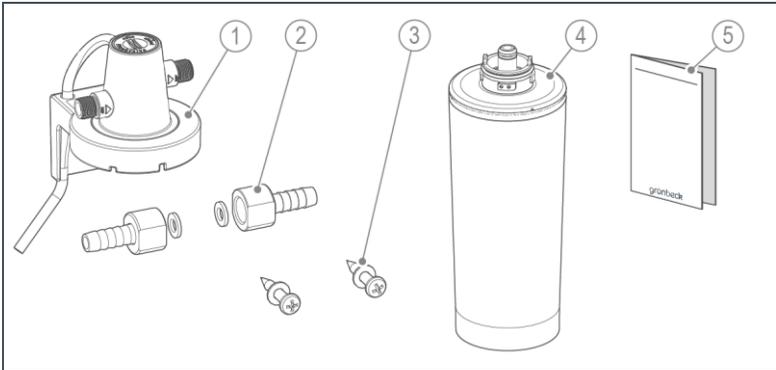


Item	Designation	Item	Designation
1	Fresh water tank	2	Cold water line
3	Water filter clearliQ travel	4	Water tap

5.1 Requirements with regard to the installation site

- The installation site must be frost-proof and ensure the system's protection from chemicals, dyes, solvents and their vapours as well as from direct sunlight.
- The installation site must be easily accessible for maintenance work (changing the filter cartridge).
- The installation location should have at least the following dimensions: Width = 150, height = 400, depth = 200 mm
- The water filter must not be installed next to a heat source (e.g. boiler, heater).

5.2 Checking the scope of supply



Item	Designation	Item	Designation
1	Filter head with holder and flushing hose	2	2x hose fitting with seal
3	2x fastening screw with washer	4	Filter cartridge
5	Quick reference manual		

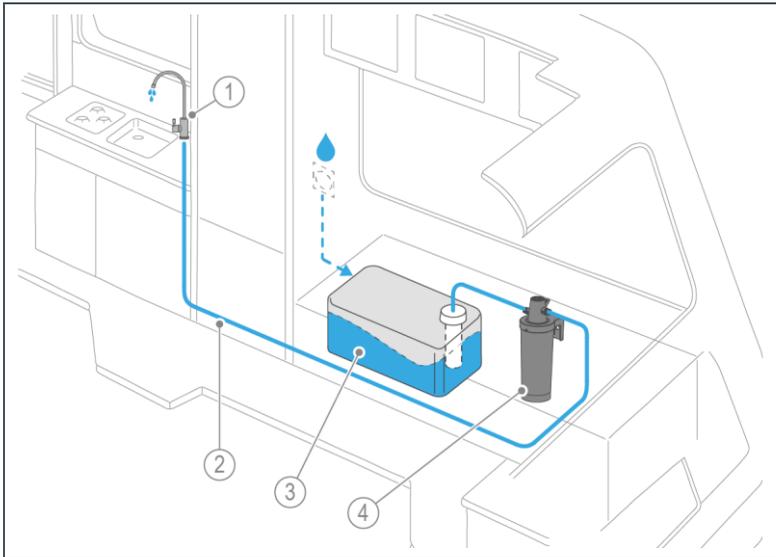
- Check the scope of supply for completeness and damage.

5.3 Installing the product



The filter head has an integrated shut-off valve. No additional shut-off valves have to be installed in the inlet and outlet.
The filter cartridge must always be installed.

Installation example in the caravan



Item	Designation	Item	Designation
1	Water tap	2	Cold water line
3	Fresh water tank	4	Water filter cleariQ travel



Impurities can lead to leaks.

- Pay attention to cleanliness and hygiene when installing the product.

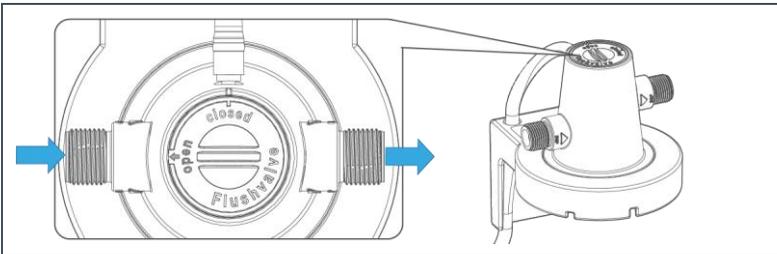
5.3.1 Fastening the water filter



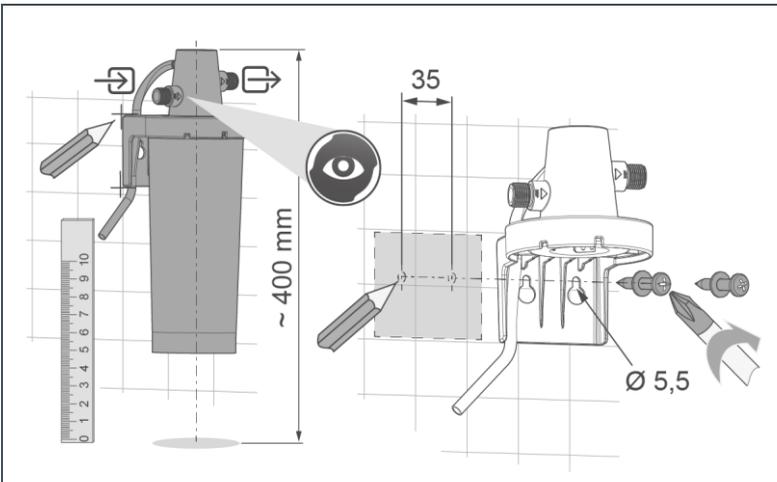
The filter head must be fastened according to the on-site situation. A solid fastening must be provided by the customer.

Prerequisite for small space conditions

If the flushing/pressure relief valve (flush valve) will not be accessible after installation, the flush valve must be set as follows before installation.

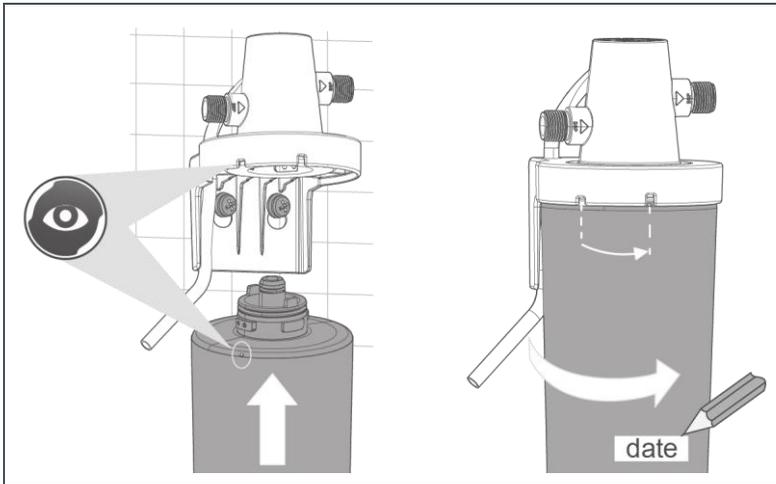


5.3.1.1 Fastening filter head



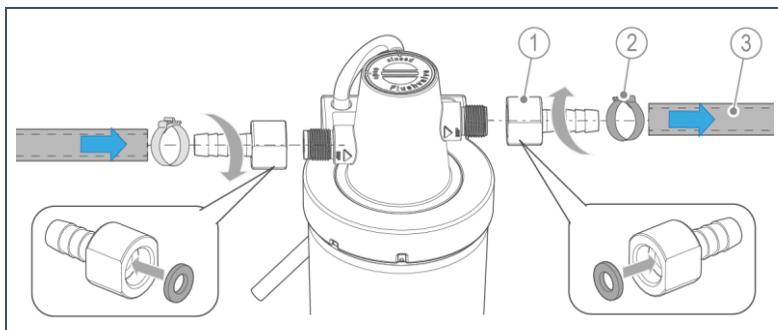
1. Determine the position of the filter head according to the installation conditions.
2. Observe the flow direction marking on the filter head.
3. Mark the position.
4. Fasten the filter head with fastening screws and washers.
 - » The filter head is solidly fixed and accessible for connection and maintenance work.

5.3.1.2 Inserting filter cartridge



5. Insert the filter cartridge – observe the markings.
6. Turn the filter cartridge clockwise as far as the stop.
 - » The marking can be seen on the front end.
7. Note the date on the filter cartridge.

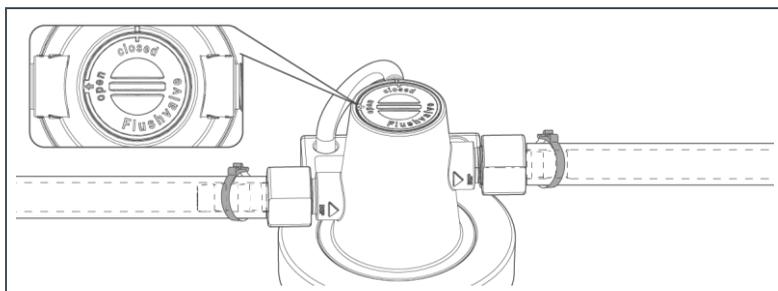
5.3.1.3 Connecting water pipes



Item	Designation	Item	Designation
1	Hose fitting with seal	2	Hose clamp (on-site)
3	Water pipe (on-site)		

8. Screw the assembled hose fitting with inserted seal firmly into place.

» The screw connections must be tight.



9. Plug the water pipes onto the hose fittings with the hose clamps pushed on.

10. Tighten the hose clamps.

» The clearliQ travel is installed.

6 Start-up



The water filter is only allowed to be commissioned by the owner of the recreational vehicle.

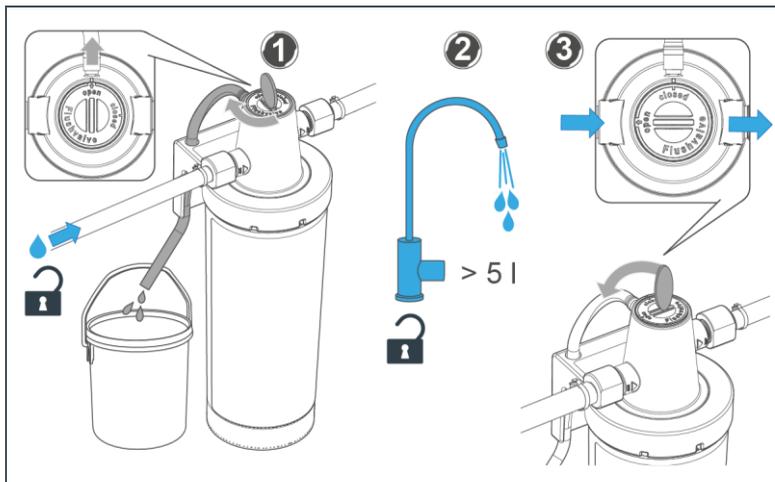
6.1 How to start up the product

6.1.1 Venting the system



When the filter cartridge is inserted and changed, a small amount of water may escape from the filter head once.

- ▶ Keep a cloth ready to absorb any leaking water immediately.
- ▶ Fill drinking water into your fresh water tank.



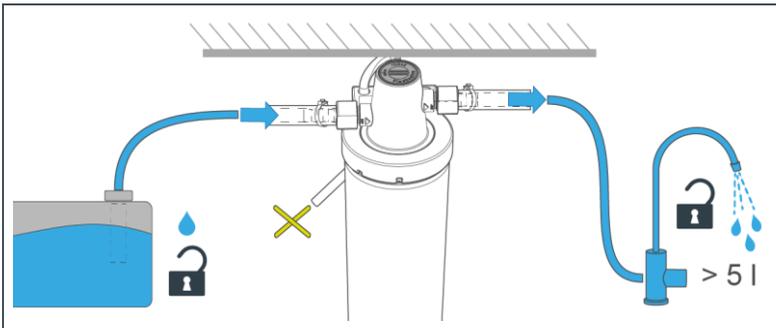
1. Open the flushing/pressure relief valve (flush valve) on the filter head – **open** position.
 - a Place the end of the flushing hose into a receptacle.
2. Open a withdrawal point (water tap) after the water filter.
 - b Run about 5 litres of water through it.
 - c Check the connections and the filter cartridge for leaks.

» The filter cartridge is flushed and the system is vented.
3. Close the flushing/pressure relief valve – **closed** position.

6.1.2 Alternative venting



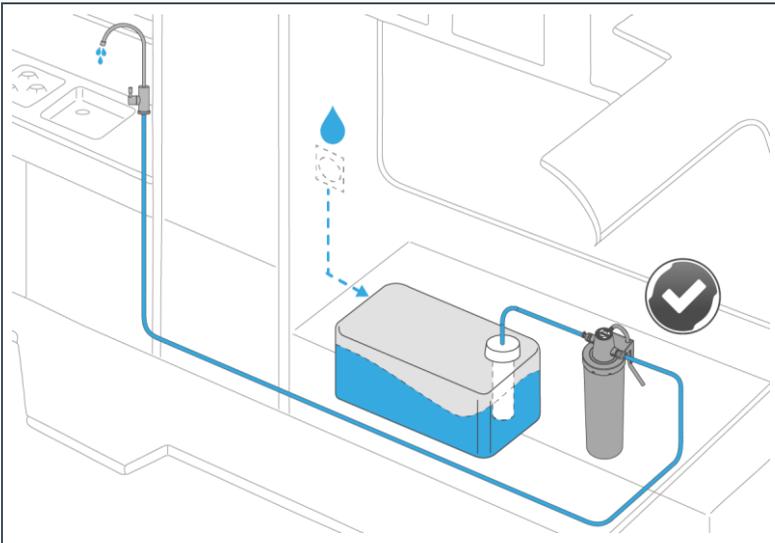
In case of limited space in which case the flush valve is not accessible, the venting process can be carried out alternatively as follows:



- » The flushing/pressure relief valve (flush valve) is in the **closed** position – the filter cartridge can be flushed.
1. Open a withdrawal point (water tap) after the water filter.
 - a Run about 5 litres of water through it.

- b** Check the connections and the filter cartridge for leaks.
 - » The filter cartridge and filter head are flushed via the water tap and the system is vented.

6.1.3 Flushing the system



- 1.** Backwash the system with at least 2 litres.
 - » The water filter clearliQ travel and the water pipe to the water withdrawal point are completely flushed.
- 2.** Make a note of the initial start-up (refer to chapter 13).

6.2 Handing over the product to the owner/operator/end user

- ▶ Explain to the owner/operator/end user how the product works.
- ▶ Use this manual to brief the owner/operator/end user and answer any questions.
- ▶ Inform the owner/operator/end user about the need for inspections and maintenance.
- ▶ Hand over all documents to the owner/operator/end user for storage.

6.2.1 Disposal of packaging

- ▶ Dispose of packaging material as soon as it is no longer needed.

NOTE

Risk to the environment due to incorrect disposal

- Packaging materials are valuable raw materials and can be reused in many cases.
- Incorrect disposal can cause environment pollution.
 - ▶ Dispose of packaging material in an environmentally sound manner.
 - ▶ Observe the locally applicable disposal regulations.
 - ▶ If necessary, commission a specialist company with the disposal.

7 Operation/handling

The operation of the water filter clearliQ travel is automatic and requires no operator intervention.



No water can flow through the filter head if the filter cartridge is not installed.

- ▶ Regularly inspect the water filter for function and tightness (refer to chapter 8.3).
- ▶ Change the filter cartridge regularly (refer to chapter 8.4.1).

7.1 Temporary standstill

NOTE

Longer downtime when not in use

- Danger of bacterial growth due to stagnation.
- ▶ Flush the water filter with the a corresponding flushing volume.

Downtime	Flushing volume
≤ 7 days	> 2 litres
8 – 30 days	> 10 litres
> 30 days	Carry out disinfection flushing of the fresh water system in accordance with the vehicle manufacturer's instructions

- ▶ Take the water filter out of operation if it is not used over winter or for a downtime > 5 months (refer to chapter 10.1).
- ▶ Put the water filter back into operation when the season starts (refer to chapter 10.2).

8 Maintenance and repair

Maintenance includes cleaning, inspection and servicing of the product.



WARNING

Contaminated drinking water if the work is not carried out properly.

- Infectious diseases due to bacterial growth
 - ▶ Pay attention to hygiene when working on the product.

Regular maintenance ensures trouble-free, hygienic operation.

- ▶ Only use genuine spare and wearing parts from Grünbeck.

8.1 Cleaning

NOTE

Do not clean the system with cleaning agents containing alcohol/solvents.

- These substances will damage plastic components.
 - ▶ Use a mild/pH-neutral soap solution.
- ▶ Only clean the outside of the product.
- ▶ Do not use any strong or abrasive cleaning agents.
- ▶ Wipe the housing with a damp cloth.

8.2 Intervals



Faults can be detected in time by regular inspection and maintenance, and product failures can be avoided.

- ▶ As owner/operating company, determine at which intervals (load-dependent) the product has to be inspected and maintained. This is subject to the actual conditions: Water condition, degree of impurities, environmental influences, consumption, etc.

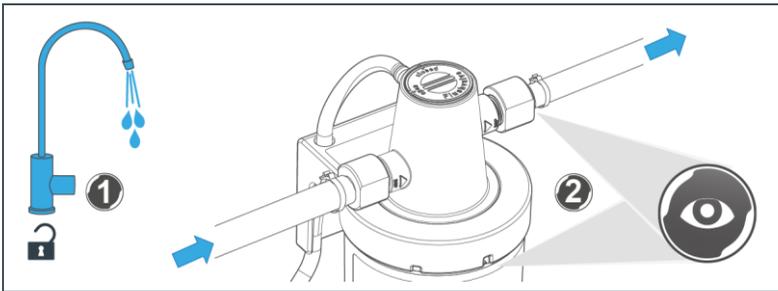
The following interval table shows the minimum intervals for the activities to be performed.

Task	Interval	Execution
Inspection	Before a long trip 2 months	<ul style="list-style-type: none">• Visual inspection for leaks
Maintenance	6 months or after 5000 l consumption Demand-oriented in case of contamina- tion	<ul style="list-style-type: none">• Check the state and seal tightness of the entire system• Change filter cartridge (after commissioning of the filter cartridge)

8.3 Inspection

You as the operator may perform the regular inspections yourself. We recommend inspecting the product at shorter intervals initially and later on as required.

- ▶ Conduct an inspection at least every 2 months:



1. Open the water withdrawal point completely.
 2. Check the system for leaks.
 3. Check that the water pressure is not reduced.
 - a If there is a visible drop in water pressure, the filter cartridge could be exhausted.
 - b Change the filter cartridge, if necessary.
- » The filter cartridge and the connections must not show any leakage.

8.4 Maintenance

Some regular work is necessary in order to ensure proper functioning of the product in the long term.

- ▶ Perform the following activities in addition to the inspection work:
 1. Check the hose clamps of the water hoses for firm seating.
 2. Check the firm seating of the filter head.
 3. Check all system components for damage.

8.4.1 Change filter cartridge



Change the filter cartridge after 6 months or 5000 litres of treated water from commissioning, whichever comes first. The filter cartridge can be changed at any time (as required).

When the filter cartridge is changed, small amounts of water may escape from the filter head.

- ▶ Keep a cloth ready to absorb any leaking water immediately.



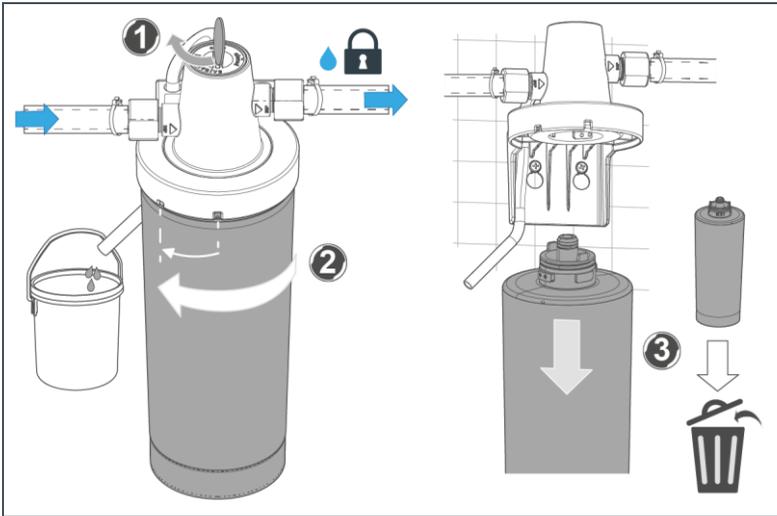
Recommendation:

- ▶ Empty the fresh water tank before changing the filter cartridge.

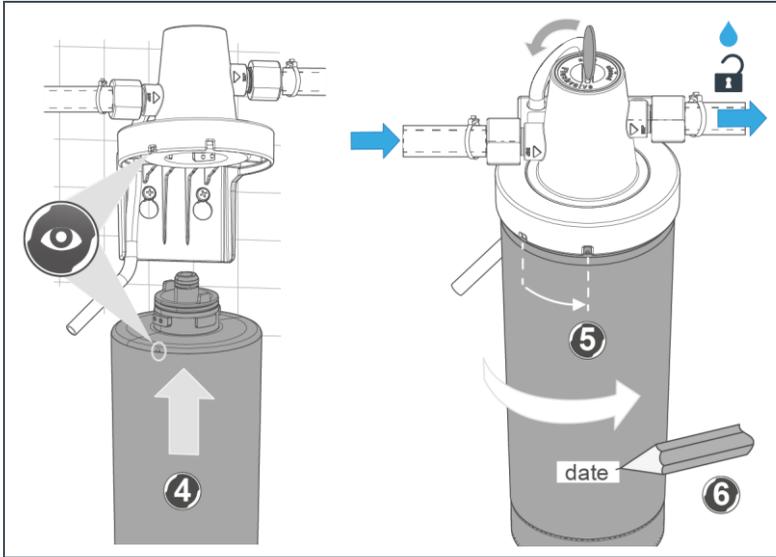


In case of limited space in which case the flush valve is not accessible, it is possible to change the filter cartridge without venting the filter head (refer to chapter 6.1.2).

- ▶ Check that the water withdrawal point is closed.



1. Release water pressure – set flush valve to **open** and take up water (max. 100 ml) into the container via the flushing hose.
 2. Turn the filter cartridge anticlockwise and pull it out downwards.
 3. The used filter cartridge can be disposed of with household waste.
- ▶ Pick up the new filter cartridge.



4. Insert the new filter cartridge into the filter head – observe the marking.
5. Turn the filter cartridge clockwise as far as the stop.
 - » The filter cartridge is engaged.
6. Note the date on the filter cartridge.
7. Fill the fresh water tank with drinking water.
8. Open a withdrawal point.
9. Vent the filter cartridge (refer to chapter 6.1.1).
10. Backwash the system with at least 2 litres.
11. Check the complete system for leaks.
 - » The water filter is ready for operation again.

8.5 Consumables

You can order the consumables with the part no. from your Erwin Hymer Group specialist dealer.

Product		Quantity	Product no. (P/N)	Part no. (B/N)
Replacement cartridge	piece	1	525000020001	3345958
Replacement cartridge Double	piece	2	525000030001	3345960

8.6 Spare parts

The Grünbeck head office is at your disposal for further information.

Spare parts are available from your Erwin Hymer Group specialist dealer.

8.7 Wearing parts

Wearing parts are listed below:

- Seals
- Hose fittings

9 Fault



WARNING

Contaminated drinking water due to stagnation

- Infectious diseases due to bacterial growth
 - ▶ Have malfunctions remedied immediately.

Observation	Explanation	Remedy
The water pressure at the withdrawal point is too low (pressure loss too high)	The filter cartridge is contaminated	▶ Change filter cartridge
	Defective immersion pump	▶ Check functioning of the immersion pump
Taste of the treated water negatively affected	Inappropriately long period of non-use (downtime)	▶ Draw off water for a few minutes
		▶ Clean and disinfect the fresh water tank and the pipe system
Solids in the filtered water	Inappropriately high flow rate through the filter cartridge	▶ Check filter cartridge for damage or leakage
	Filter cartridge damaged or not properly installed	▶ Change filter cartridge
Water loss from the system	Faulty joints	▶ Check O-rings and seals for deformation or wear and tear
		▶ Check filter cartridge for damage
		▶ Change filter cartridge



If a fault cannot be rectified, further measures can be taken by the technical service or a qualified specialist.

- ▶ Contact customer service.

10 Decommissioning

10.1 Seasonal decommissioning

NOTE

Danger of frost with fully filled water filter

- The water can freeze at low temperatures and damage the water filter.
 - ▶ Drain the fresh water system completely.
 - ▶ Remove the filter cartridge.

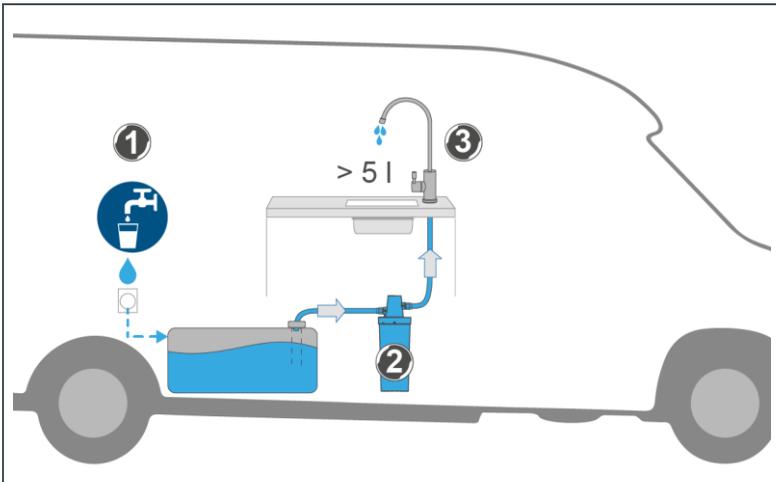


To avoid bacterial growth caused by stagnation of the water, the fresh water system of the recreational vehicle must be completely drained during seasonal decommissioning.

The new filter cartridge is only allowed to be inserted shortly before recommissioning.

1. Drain the complete fresh water system.
 - a Drain the fresh water tank and hose lines.
2. Remove the filter cartridge (refer to chapter 8.4.1).
 - b Let the fresh water system dry.
3. If necessary, disinfect the fresh water system according to the vehicle manufacturer's instructions – pay attention to material compatibility.

10.2 Restart



1. Channel drinking water into the fresh water tank.
2. Insert a new filter cartridge.
3. Put the entire system into operation (refer to chapter 6.1).

11 Disposal

11.1 Dismantling

1. Drain the complete fresh water system.
2. Remove the filter cartridge (refer to chapter 8.4.1).
3. Loosen the hose clamps and remove the connected water pipes.
4. Loosen the screw connections of the filter head.
5. Dismantle the filter head.

11.2 Disposal

- ▶ Comply with the applicable national regulations.

Packaging

- ▶ Dispose of the packaging in an environmentally sound manner.

Filter cartridge

- ▶ Dispose of the filter cartridge with your household waste.

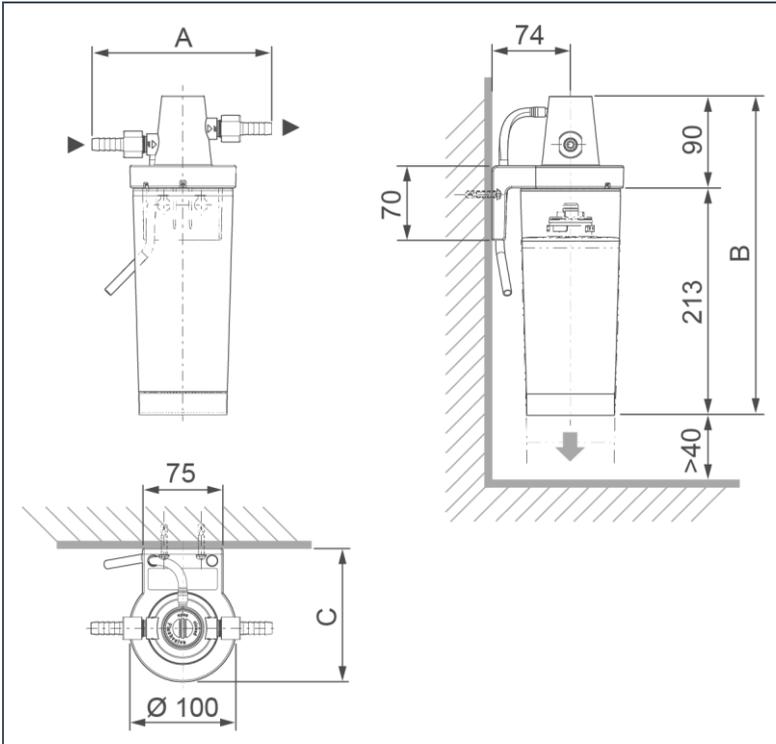
Product

- ▶ Use the available collection facilities for the disposal of your product.



Information on collection points for your product can be obtained from your local council, the public waste disposal authority or your waste collection service.

12 Technical specifications



Dimensions and weights

A	Width	mm	170
B	Height	mm	300
C	Depth	mm	125
Operating weight, approx. (incl. water)		kg	1.8
Shipping weight, approx.		kg	0.8

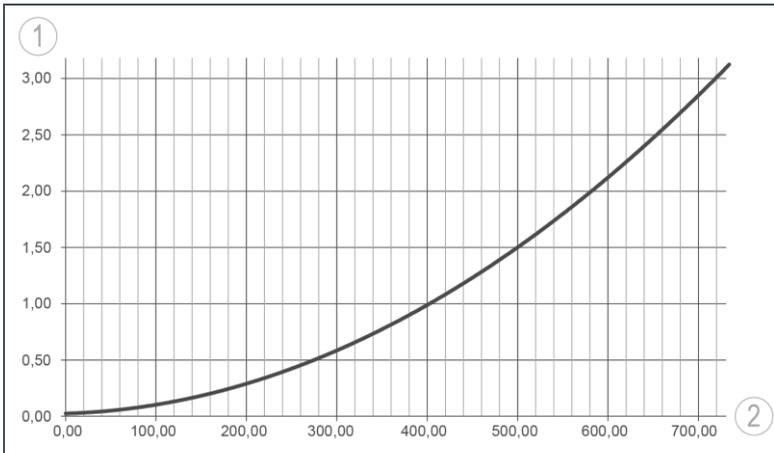
Connection data

Hose fitting	mm	12
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• Technical specifications

Performance data		
Nominal flow	l/min	4.0
	l/h	250
Operating pressure	bar	≤ 6.0
Filter cartridge change interval after commissioning (recommended) after max. up to	months	6
	l	5000
General data		
Water temperature	°C	4 – 30
Ambient temperature	°C	5 – 40
Product no. (P/N)		525000010000
Part no. (B/N)		3345951

Pressure loss curve



Item	Designation	Item	Designation
1	Differential pressure in bar	2	Flow in l/h

13 Operation log for owner/operating company



► Document the initial start-up and all maintenance activities.

Water filter | clearliQ travel

Serial no.: _____

13.1 Start-up log

Customer	
Name	_____
Address	_____
Installation/accessories	
Water pump (make, type)	_____
Installation site of the clearliQ travel	_____
Material of water pipes	_____
Operating values	
Water flow rate at withdrawal point	_____ l/h
Number of withdrawal points	_____
Fresh water tank size	_____ l
Disinfectant	_____
Remark	

Start-up	
Installer/owner/operating company	_____
Company	_____
Work time certificate (no.)	_____
Date/signature	_____

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