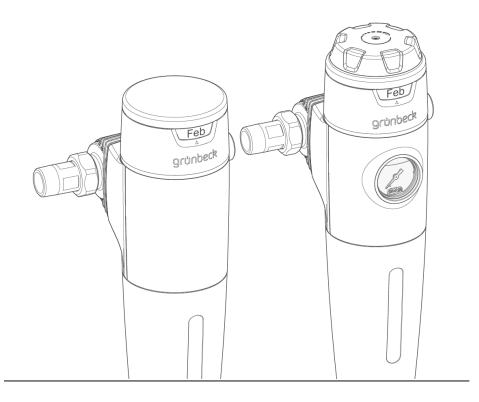
## We understand water.



## Fine filter | pureliQ:K, pureliQ:KD

Operation manual

# grünbeck

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Availability Monday to Thursday 7:00 am - 6:00 pm

Friday 7:00 am - 4:00 pm

> Subject to technical modifications. © by Grünbeck Wasseraufbereitung GmbH

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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 your product.
- Adhere to all safety instructions and instructions for action.
- 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 following products:

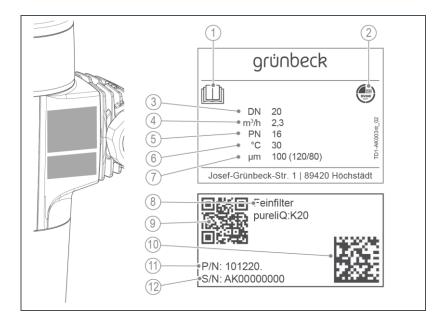
- Fine filter pureliQ:K20/KD20 (3/4", DN 20)
- Fine filter pureliQ:K25/KD25 (1", DN 25)
- Fine filter pureliQ:K32/KD32 (1<sup>1</sup>/<sub>4</sub>", DN 32)

## 1.2 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 side of the filter.



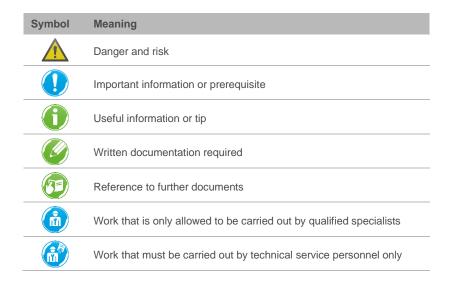
#### Designation

- 1 Obey the operation manual
- 2 DVGW test mark
- 3 Nominal connection diameter
- 4 Flow rate
- 5 Nominal pressure
- 6 Water temperature

#### Designation

- 7 Filter fineness
- 8 Product designation
- 9 QR code
- 10 Data matrix code
- 11 Order no.
- 12 Serial no.

### 1.3 Symbols used



## 1.4 Depiction of warnings

This manual contains information that you must comply with for your personal safety. The information is marked with 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 infor-<br>mation/instructions |  |
|------------------------------|---------|--|--|
|                              | DANGER  |  | Death or serious injuries  |
|                              | WARNING | Personal<br>injury   | Possible death or serious injuries   |
|                              | CAUTION |  | Possible moderate or minor injuries  |
|                              | NOTE    | Damage to property   | Possible damage to components, the<br>product and/or its functions, or any-<br>thing in its vicinity |

## 1.5 Requirements for personnel

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

### 1.5.1 Qualification of personnel

| Personnel   | Prerequisites   |  |
|---|---|--|
| Operator/user   | <ul> <li>No special expertise</li> <li>Knowledge of the tasks assigned</li> <li>Knowledge of possible dangers in the case of inappropriate conduct</li> <li>Knowledge of the necessary protective equipment and protective measures</li> <li>Knowledge of residual risks</li> </ul> |  |
| Owner/operating com-<br>pany  | <ul> <li>Product-specific expertise</li> <li>Knowledge of statutory regulations for safety and accident prevention</li> </ul>   |  |
| <ul> <li>Qualified specialist</li> <li>Electrical engineering</li> <li>Sanitary engineering<br/>(HVAC and plumbing)</li> <li>Transport</li> </ul> | <ul> <li>Professional training</li> <li>Knowledge of relevant standards and regulations</li> <li>Knowledge of detection and prevention of possible risks</li> <li>Knowledge of statutory regulations on accident prevention</li> </ul>  |  |

| Personnel  | Prerequisites   |
|--|---|
| Technical service<br>(Grünbeck's technical<br>service/authorised ser-<br>vice company) | <ul><li>Extended product-specific expertise</li><li>Trained by Grünbeck</li></ul> |

### 1.5.2 Authorisations of personnel

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

|                           | Opera-<br>tor/user | Owner/op-<br>erating<br>company | Qualified specialist | Technical service |
|---------------------------|--------------------|---------------------------------|----------------------|-------------------|
| Transport and storage     |                    | Х                               | Х                    | Х                 |
| Installation and mounting |                    |                                 | Х                    | Х                 |
| Start-up                  |                    |                                 | Х                    | Х                 |
| Operation and handling    | Х                  | Х                               | Х                    | Х                 |
| Cleaning                  | Х                  | Х                               | Х                    | Х                 |
| Inspection                | Х                  | Х                               | Х                    | Х                 |
| Mainte- semi-annually     |                    | Х                               | Х                    | Х                 |
| nance Annually            |                    |                                 | Х                    | Х                 |
| Troubleshooting           |                    | Х                               | Х                    | Х                 |
| Repair                    |                    |                                 | Х                    | Х                 |
| Shutdown and restart      |                    |                                 | Х                    | Х                 |
| Dismantling and disposal  |                    |                                 | Х                    | Х                 |

### 1.5.3 Personal protective equipment

You do not need any protective equipment to operate the product.

Recommendation: Use hygienic gloves when replacing the filter element and cleaning the support mesh in order to prevent bacterial growth.



Protective gloves

## 2 Safety

### 2.1 Safety measures

- Only operate your product if all components are installed properly.
- Adhere to the applicable local guidelines on drinking water protection, accident prevention and occupational safety.
- Do not make any changes, alterations or extensions on your product. Only use genuine spare parts for maintenance or repair.
- Keep the premises locked to prevent unauthorised access and to protect endangered/non-instructed people from residual risks.
- Observe the maintenance intervals (refer to chapter 8.2). Failure to comply can result in microbiological contamination of your drinking water system.

### 2.1.1 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. Check the pressure lines and the product for leaks at regular intervals.
- Before starting repair and maintenance work, make sure that all affected components are depressurised.

### 2.1.2 Group of persons requiring protection

- Children must not play with the product.
- This product is not designed to be used by persons (including children) with reduced capabilities, lack of experience or lack of knowledge. Unless they are supervised, have been instructed on 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



WARNING E

Excessive contamination of the filter element

- Health risk due to contamination of the drinking water
- Observe the intervals for inspection and replacement of the filter cartridge (according to DIN EN 806-5 every 6 months at the latest).

## 2.3 Conduct in an emergency

- 2.3.1 If there is a water leak
  - 1. Close the shut-off valves for the water flow upstream and downstream of the filter.
  - 2. Locate the leak.
  - 3. Eliminate the cause of the water leak.

## 3 Product description

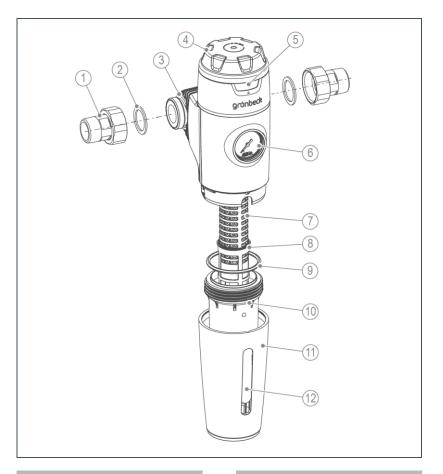
### 3.1 Intended use

- The fine filters pureliQ:K and pureliQ:KD are designed for the filtration of drinking water.
- The fine filter pureliQ:KD with pressure reducer in addition is suitable for the adjustment of the outlet pressure on the withdrawal side in order to maintain the max. admissible operating pressure stipulated in DIN EN 806-2. The adjustment of the after-pressure on the withdrawal side, however, only works when applied in the positive pressure range.
- The filters can be used for positive pressure and negative pressure applications.
- The filters are designed according to the stipulations of DIN EN 13443-1 and DIN 19628 and are intended for installation into the drinking water system according to DIN EN 806-2 (installation immediately downstream of the water meter).
- They protect the water pipes and connected water-carrying system parts from disturbances and corrosion damage due to undissolved impurities (particles) such as rust particles, sand, etc.

### 3.1.1 Foreseeable misuse

- The filters are not suitable for circulation water that is treated with chemicals.
- The filters are neither suitable for oils, greases, solvents, soaps and other lubricating media, nor for the separation of water-soluble substances.

### 3.2 Product components



#### Designation

- 1 Water meter screw connection
- 2 Seal
- 3 Click connection flange
- 4 Pressure reducer handwheel Maintenance ring with month
- 5 indicator
- 6 Pressure gauge

#### Designation

- 7 Support mesh
- 8 Filter element
- 9 O-ring filter cylinder
- 10 Filter cylinder
- 11 Filter bell cover
- 12 Inspection window

## 3.3 Functional description

The unfiltered drinking water flows into the filter through the inlet side and from the outside in through the filter element and to the pure water outlet. Thus, foreign particles of a size > 100  $\mu$ m are retained.

Depending on their size and weight, the foreign particles either stick to the filter cartridge or they fall straight down into the filter cylinder.

In the fine filter pureliQ:KD, the flow-optimised pressure reducer, which is designed according to DIN EN 1567, additionally enables the outlet pressure on the withdrawal side to be set to 1 - 6 bar (factory setting: 4 bar).

### 3.4 Accessories

Your product can be retrofitted with accessories. Please contact your local Grünbeck representative or Grünbeck's headquarters in Hoechstaedt for details.

| Illustration | Product   | Order no. |
|--------------|---|-----------|
|              | 50 µm filter element (2 pieces)   | 103 068   |
|              | 20 µm filter element (2 pieces)   | 103 071   |
|              | 5 µm filter element (2 pieces)  | 103 081   |
|              | According to DIN EN 13443-1, filter elements with 5 μm, 20 μm and 50 μm are not permissible for drinking water systems. |           |

## 4 Transport and storage

### 4.1 Transport

► Transport the product in its original packaging only.

### 4.2 Storage

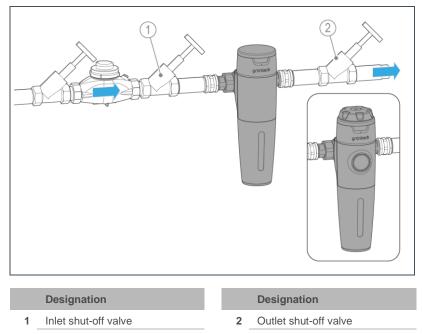
- Protect the product from the following impacts when storing it:
  - Moisture, wetness
  - Environmental impacts such as wind, rain, snow, etc.
  - Frost, direct sunlight, severe heat exposure
  - · Chemicals, dyes, solvents and their vapours

## 5 Installation

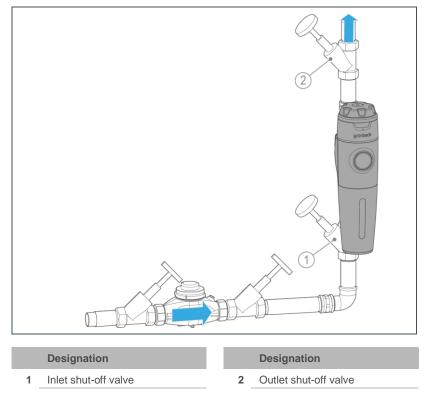


The installation of the product represents a major intervention into the drinking water system and must be carried out by a qualified specialist only.

In accordance with DIN EN 806-2 and DIN EN 1717, the product is installed in the cold water pipe downstream of the water meter and upstream of distribution pipes and the appliances to be protected.



#### Installation example in horizontal pipe



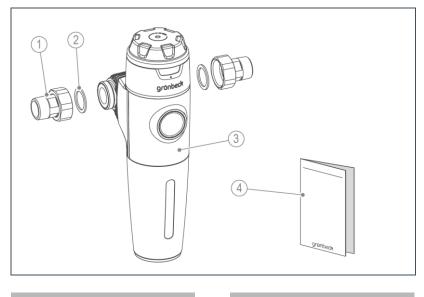
#### Installation example in vertical pipe

### 5.1 Requirements for the installation site

- The installation site must be frost-proof and ensure the filter's protection from chemicals, dyes, solvents and their vapours as well as from direct sunlight.
- The installation site must be away from heat sources (e.g. washing machines, boilers and hot water pipes).
- The installation room must provide a floor drain. If none is available, an appropriate safety device has to be installed to avoid water damage.

- The installation site must be adequately illuminated and ventilated.
- The installation site must be easily accessible for maintenance purposes.

### 5.2 Checking the scope of supply



#### Designation

- 1 Water meter screw connection
- 2 Seal

#### Designation

- 3 Fine filter pureliQ:K or pureliQ:KD
- 4 Quick reference manual

• Check the scope of supply for completeness and damage.

The transparent plastic film serves as transport and dirt protection.

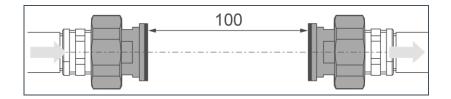
Leave it on the product during assembly and the construction phase to prevent soiling of the white housing.

#### Water installation 5.3



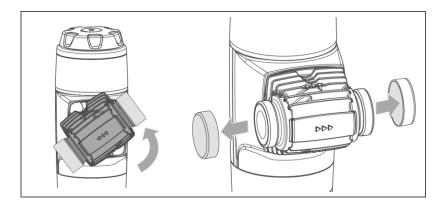
The rotatable click-type connection flange allows the filter to be adapted to any flow direction given on site. The filter can be mounted in a horizontal or vertical pipe.

### 5.3.1 Preparing the pipe

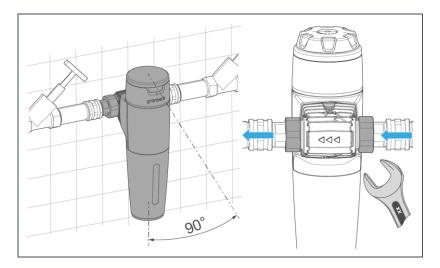


Install the water meter screw connection in the pipe.

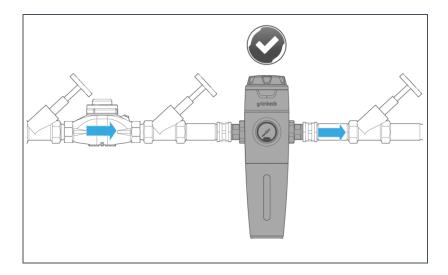
- The distance between the two seals must be 100 mm. »
- 5.3.2 Installing the connection flange
  - 1. Check the flow direction given on site.
  - **2.** Leave the protective caps on the threads.



- **3.** Rotate the click-type connection flange to the position suitable for your flow direction (refer to marking on the click-type connection flange).
- » The arrow must match the water flow direction.
- 4. Remove the protective caps.



**5.** Tighten the click-type connection flange with the union nuts without applying tension.



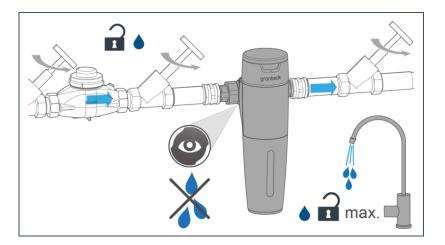
» The filter is mounted.

## 6 Start-up



The initial start-up of the product is only allowed to be carried out by the customer service.

### 6.1 Checking the product



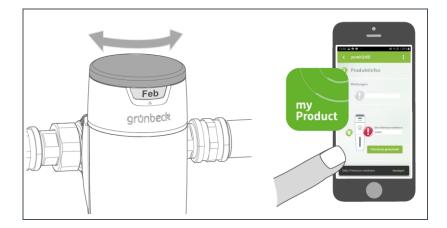
- 1. Open the shut-off valves.
- 2. Open the nearest water withdrawal point after the filter as far as it will go.
- » The filter is vented.
- 3. Check the filter for leaks.
- **4.** Enter the initial start-up/commissioning in the operation log (refer to chapter 13).
- » The filter is in operation.

-

## 6.2 Setting the month indicator



Via Grünbeck's myProduct app, you will receive a message about the timely replacement of the filter element (refer to chapter 7.1).

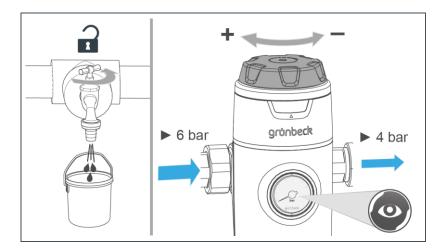


Set the maintenance ring to the month of the next maintenance (alternatively, to the month of the next replacement of the filter element – every six months at the latest).

## 6.3 Setting the pressure reducer (pureliQ:KD)

The factory setting for the pressure reducer is 4 bar.

You can change this value as follows:



- Set the desired holding pressure on the handwheel for pressure reducer (turn anti clockwise = pressure increase, turn clockwise = pressure reduction).
- 2. Open and close a water withdrawal point.
- » The holding pressure adjusts itself.
- **3.** Read off the actual holding pressure at the pressure gauge.
- 4. Repeat steps 1. 3. until the desired pressure is reached.
- » The desired outlet pressure is set.



The outlet pressure is set according to DIN EN 806-2.

• Comply with the max. admissible operating pressure.

-

### 6.4 Handing over the product to the owner/operating company

- Explain to the owner/operating company how the product works.
- Use the manual to brief the owner/operating company and answer any questions.
- Inform the owner/operating company about the need for inspections and maintenance.
- Hand over all documents to the owner/operating company for keeping.
- 6.4.1 Disposal of packaging
  - Dispose of packaging material as soon as it is no longer needed (refer to chapter 11.2).

## 7 Operation/Handling

The filter is operated automatically and does not require any manual operation.

- ▶ Inspect the filter at regular intervals (refer to chapter 8.3).
- Replace the filter element at regular intervals (refer to chapter 8.4.1).
- Flush the filter after a temporary shutdown (refer to chapter 10.1).

### 7.1 Installing Grünbeck's myProduct app



You can register your product using Grünbeck's myProduct app.

That way, you will receive a reminder to replace the filter element as well as additional information on your product

- Download Grünbeck's myProduct app and install it on your mobile device.
- » Registering your product extends your warranty by 1 year.

## 8 Maintenance and repair

Maintenance and repair includes cleaning, inspection and maintenance of the product.



The responsibility for inspection and maintenance is subject to local and national requirements. The owner/operating company is responsible for compliance with the prescribed maintenance and repair work.



By concluding a maintenance contract you ensure that all maintenance work will be performed in due time.

▶ Only use genuine spare and wearing parts from Grünbeck.

## 8.1 Cleaning

NOTE

Do not clean the product with cleaning agents containing alcohol/solvents

- These substances damage the 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 surfaces with a damp cloth.

### 8.2 Intervals



By way of regular inspections and maintenance, malfunctions can be detected in time and product failures might be prevented.

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

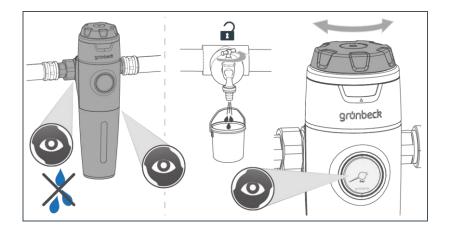
The following interval table shows the minimum intervals for the activities to be performed.

| Task        | Interval             | Activities  |
|-------------|----------------------|---|
| Inspection  | 2 months             | <ul><li>Visual/functional check</li><li>Read the pressure (for pureliQ:KD)</li></ul>  |
| Maintenance | 6 months             | <ul> <li>Replace the filter element</li> <li>Clean the support mesh (if needed)</li> <li>Condition and leak check</li> <li>Adjust the maintenance ring</li> </ul> |
|             | Annually as required | <ul> <li>Change filter element</li> <li>Check O-rings/flat seals for wear and tear</li> <li>Check for tight fit</li> </ul>  |
| Repair      | 5 years              | <ul> <li>Recommendation: Replace support mesh,<br/>pressure gauge, pressure reducer and<br/>seals</li> </ul>  |
|             | 10 years             | Recommendation: Replace the filter cylin-<br>der  |

## 8.3 Inspection

You as owner/operating company may perform the regular inspections yourself.

Conduct an inspection at least every 2 months as follows:



- 1. Check the installation for leaks and function.
- 2. For pureliQ:KD, read the static pressure (zero flow).
- **3.** Fully open a water withdrawal point (generate max. flow) and read the flow pressure.
- Replace the filter element in case of increasing contamination of the filter element and/or decreasing water pressure in the pipe network.

### 8.4 Maintenance

Regular work is necessary in order to ensure proper functioning of the product in the long term. DIN EN 806-5 recommends regular maintenance to ensure trouble-free and hygienic operation of the product.



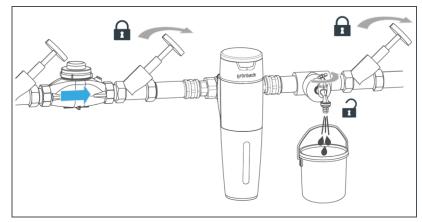
WARNING

Irregularly replaced filter element and contaminated support mesh

- Health risk due to contamination of the drinking water.
- Comply with the intervals for inspection and replacement of the filter element (according to DIN EN 806-5 every 6 months at the latest).
- Dispose of the used filter element.

### 8.4.1 Semi-annual maintenance

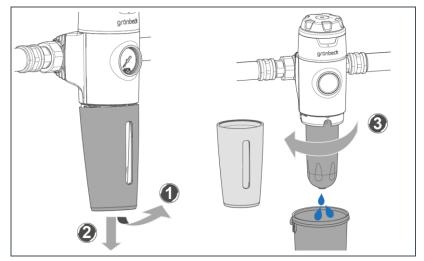
In order to carry out the semi-annual maintenance, proceed as follows:



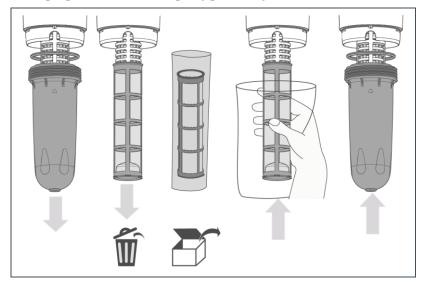
### 8.4.1.1 Preparation for replacing the filter element

- 1. Place a bucket (min. 10 l) under the filter.
- 2. Close the shut-off valves at the inlet and outlet.
- 3. Open a water withdrawal point and wait for a few seconds.
- » The pressure in the product and the pipe network is being relieved.

#### 8.4.1.2 Dismantling the filter cylinder



- 1. Tilt the filter cylinder cover forward.
- 2. Pull the filter cylinder cover downwards.
- **3.** Screw on the filter cylinder by hand. Use a strap spanner if required.
- » You have loosened the filter cylinder and can change the filter cartridge.



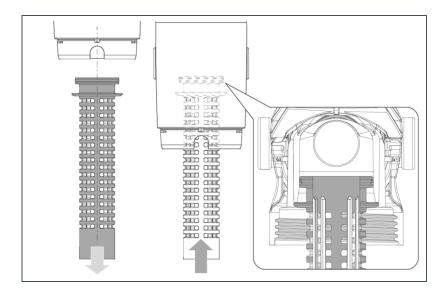
8.4.1.3 Changing the filter cartridge hygienically

- 1. Pull off the O-ring with filter cylinder.
- 2. Pull the used filter cartridge off the support fabric.
- 3. Dispose of the used filter element (refer to chapter 11.2).

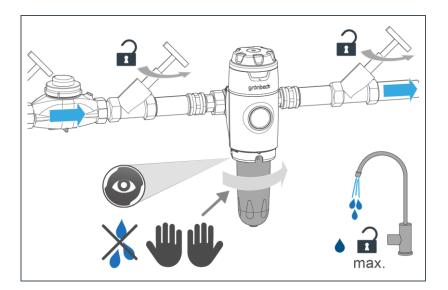


For hygienic reasons, do not touch the new filter element and the support mesh with bare hands.

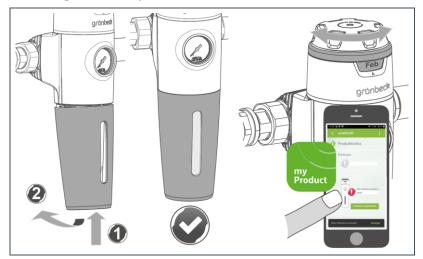
Use hygienic gloves.



- 4. Clean the support mesh in case of major impurities.
  - a Pull the support mesh downwards.
  - **b** Rinse the support mesh with water.
  - **c** Insert the support mesh into the filter head as far as it will go.
- 5. Slide the new filter element in its foil packaging over the support mesh.
- **6.** Check the sealing surfaces and the filter cylinder O-ring for cleanliness.
- 7. Replace the filter cylinder O-ring if required.



- 8. Clean the filter cylinder with clear water.
- **9.** Screw the filter cylinder in by hand up to the stop do not use a strap wrench.



8.4.1.4 Attaching the filter cylinder cover

- 1. Attach the filter cylinder cover.
- 2. Tilt the filter cylinder cover backwards.
- 3. Set the date for the next maintenance (refer to chapter 6.2).
- ▶ Put the filter into operation (refer to chapter 6.1).

### 8.4.2 Annual maintenance as required

If a leak or malfunction is detected, conduct a wear test in addition to the semi-annual maintenance:

- 1. Check the O-rings and flat seals for wear and tear.
- 2. Check the filter's tight fit in the pipe.
- 3. Replace worn components.

## 8.5 Consumables

NOTE

The filter element must not be cleaned.

- Risk of hygienic contamination.
- ► Dispose of the used filter element.

| Image | Product               | Quan-<br>tity | Order no. |
|-------|-----------------------|---------------|-----------|
|       | Filter element 100 µm | 2 pieces      | 101 272   |

### 8.6 Spare parts

For an overview of the spare parts, refer to our spare parts catalogue at <u>www.gruenbeck.com</u>. You can obtain the spare parts from your local Grünbeck representative.

## 8.7 Wearing parts



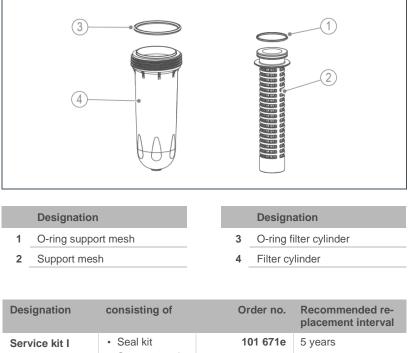
Wearing parts must be replaced by qualified specialists only.

Wearing parts are listed below:

- Seals (O-rings)
- Have the seals replaced in the event of leaks, damage or distortions.
- Have defective or worn components replaced (refer to chapter 8.8).

### 8.8 Service kits

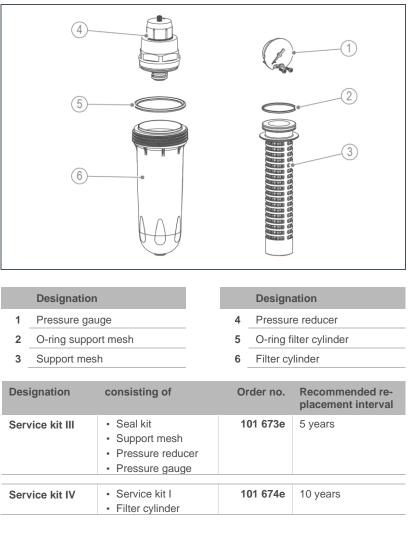
#### 8.8.1 Service kits for pureliQ:K



| Service kit I  | <ul> <li>Seal kit</li> <li>Support mesh</li> </ul> | 101 671e | 5 years  |
|----------------|--|----------|----------|
| Service kit II | Service kit I     Filter cylinder                  | 101 672e | 10 years |

| Tools required                               | Order no. |
|--|-----------|
| Strap wrench (to remove the filter cylinder) | 105 805   |

#### 8.8.2 Service kits for pureliQ:KD



| Tools required                                      | Order no. |
|---|-----------|
| Strap wrench (to remove the filter cylinder)        | 105 805   |
| Pipe socket wrench (for pressure reducer cartridge) | 104 805   |

## 9 Fault

<u>/!</u>`

WARNING

Contaminated drinking water due to stagnation

- Infectious diseases
- ► Have malfunctions eliminated immediately.

### 9.1 Observations

| Observation  | Explanation   | Remedy   |
|--|---|--|
| Water pressure at the<br>withdrawal point too<br>low   | The shut-off valves are not fully open                                  | <ul> <li>Fully open the shut-off<br/>valves</li> </ul>   |
| (pressure loss too<br>high)                            | The filter element is dirty   | <ul> <li>Change filter element</li> </ul>  |
|  | The pressure reducer is<br>not set correctly or is de-<br>fective       | Have the pressure re-<br>ducer checked, adjusted<br>or replaced by the tech-<br>nical service. |
| Taste of the treated<br>water negatively af-<br>fected | Inappropriately long pe-<br>riod of non-use (down-<br>time)             | <ul><li>Withdraw water for several minutes</li><li>Change filter element</li></ul>             |
| Solids contained in the filtered water                 | Inappropriately high flow through the filter                            | <ul> <li>Check support mesh<br/>and filter element for<br/>damage or leaks</li> </ul>          |
|  | Filter element or support<br>mesh damaged or not<br>installed correctly | <ul> <li>Check the installation of<br/>the filter element and<br/>the support mesh</li> </ul>  |
|  |   | <ul> <li>Components: replace fil-<br/>ter element, support<br/>mesh and seals</li> </ul>       |

| Observation                             | Explanation  | Remedy  |
|---|--------------|---|
| Water loss in the sys-<br>tem (leakage) | Faulty joint | <ul> <li>Check O-rings and<br/>seals for deformations<br/>or wear and tear</li> </ul> |
|   |              | <ul> <li>Check filter head for<br/>damage</li> </ul>                                  |
|   |              | <ul> <li>Have leaky components<br/>replaced by a qualified<br/>specialist</li> </ul>  |



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

 Contact technical service (for contact details, refer to inside cover sheet).

## 10 Shut down

It is not necessary to put your product out of operation.



In case of longer absences, e.g. holidays, precautionary hygiene measures according to VDI 3810-2 and VDI 6023-2 must be taken in order to maintain drinking water hygiene after downtimes.

### **10.1 Temporary standstill**

Perform the activities below if the drinking water system has not been used for a longer period of time:

#### After a downtime of $\leq$ 4 weeks

Open a water withdrawal point and completely flush the filter and the pipes.

#### After a downtime of > 4 weeks

- 1. Change the filter cartridge (refer to chapter 8.4.1).
- **2.** Open a water withdrawal point and completely flush the filter and the pipes.

# **11** Dismantling and disposal

### 11.1 Dismantling



The work described herein represents an intervention into your drinking water system.

- ► Have this work performed by qualified specialists only.
- 1. Close the shut-off valves upstream and downstream of the filter.
- 2. Open a water withdrawal point and wait for a few seconds.
- » The pressure in the product and the pipe network is being relieved.
- 3. Close the water withdrawal point.
- **4.** Remove the filter cylinder and collect the escaping residual water in a container.
- 5. Remove the filter from the pipe.
- **6.** Close the gap in your drinking water pipes, e.g. by using an adjusting piece.

### 11.2 Disposal

► Comply with the applicable national regulations.

#### Packaging

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.
- ► Comply with locally applicable disposal regulations.
- If necessary, commission a specialist company with the disposal.

#### Filter element

 Dispose of the used filter element with your household waste.

#### Product

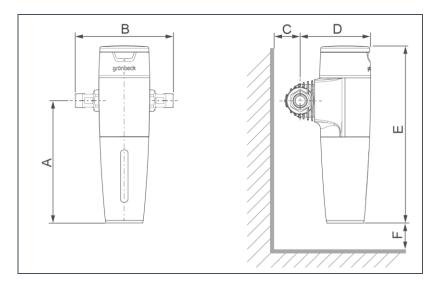
- Use the available collection points for the disposal of your product.
- If your product contains batteries or rechargeable batteries, dispose of them separately from your product.



For more information on take-back and disposal, go to <u>www.gruenbeck.com</u>.

# **12 Technical specifications**

### 12.1 pureliQ:K



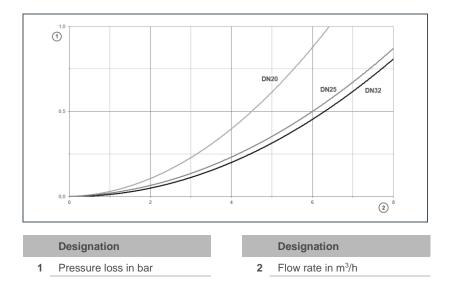
| Dim | Dimensions and weights                            |    |         | pureliQ K |         |  |
|-----|---|----|---------|-----------|---------|--|
|     |   |    | K20     | K25       | K32     |  |
| Non | ninal connection diameter                         |    | DN 20   | DN 25     | DN 32   |  |
| Con | nection diameter                                  |    | 3⁄4"    | 1"        | 11⁄4"   |  |
| A   | Installation height up to centre of connection    | mm |         | 235       |         |  |
| В   | Installation length with/without screw connection | mm | 185/100 | 182/100   | 191/100 |  |
| С   | Distance to wall                                  | mm |         | ≥ 50      |         |  |
| D   | Installation depth up to centre of connection     | mm | 135     | 135       | 145     |  |
| Е   | Total height                                      | mm |         | 335       |         |  |
| F   | Height required for replacement of filter element | mm |         | > 150     |         |  |

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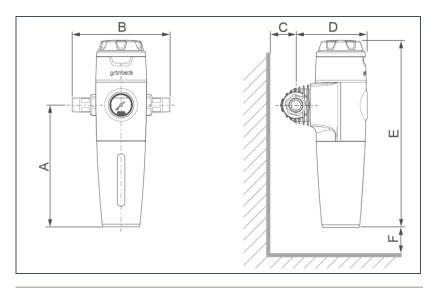
| Dimensions and weights   |      |  | pureliQ K |           |
|--|------|--|-----------|-----------|
| Empty weight   | kg   | 1.4                                    | 1.6       | 1.8       |
| Operating weight   | kg   | ~ 1.9                                  | ~ 2.1     | ~ 2.3     |
| Performance data   |      | K20                                    | K25       | K32       |
| Nominal flow at $\Delta p$ 0.2 (0.5) bar   | m³/h | 2.8 (4.5)                              | 3.7 (6.0) | 4.0 (6.3) |
| K <sub>v</sub> value   | m³/h | 6.5                                    | 8.5       | 9.1       |
| Filter fineness  | μm   | 100                                    |           |           |
| Largest/smallest pore size   | μm   | 120/80                                 |           |           |
| Operating pressure   | bar  | 2 – 16                                 |           |           |
| Nominal pressure   |      | PN 16                                  |           |           |
| General data   |      | K20                                    | K25       | K32       |
| Water temperature  | °C   | 5 - 30                                 |           |           |
| Ambient temperature  | °C   |  | 5 - 40    |           |
| DVGW registration number   |      | NW-9301DL0140                          |           |           |
| SVGW certificate number  |      | 2006-6953                              |           |           |
| ÜA registration number<br>The Office of the Vienna Provincial Govern-<br>ment – City of Vienna |      | R-15.2.3-21-17496<br>R-15.2.1-22-17624 |           |           |
| Order no.  |      | 101 220                                | 101 225   | 101 230   |

### 12.2 Pressure loss curves pureliQ:K



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### 12.3 pureliQ:KD



| Dimensions and weights |  | pureliQ:KD |         |         |         |
|------------------------|--|------------|---------|---------|---------|
|                        |  |            | KD20    | KD25    | KD32    |
| Non                    | ninal connection diameter                              |            | DN 20   | DN 25   | DN 32   |
| Con                    | nection diameter                                       |            | 3⁄4"    | 1"      | 11⁄4"   |
| А                      | Installation height up to centre of connection         | mm         |         | 235     |         |
| В                      | Installation length with/without screw connection      | mm         | 185/100 | 182/100 | 191/100 |
| С                      | Distance to wall                                       | mm         |         | ≥ 50    |         |
| D                      | Installation depth up to centre of connection          | mm         | 135     | 135     | 145     |
| Е                      | Total height   | mm         | 335     |         |         |
| F                      | Height required for replace-<br>ment of filter element | mm         | n > 150 |         |         |
|                        | Empty weight   | kg         | 1.6     | 1.8     | 2.0     |
|                        | Operating weight                                       | kg         | ~ 2.1   | ~ 2.3   | ~ 2.5   |

| Performance data   |      | KD20          | KD25                         | KD32    |
|--|------|---------------|------------------------------|---------|
| Flow rate as per DIN EN 1567   | m³/h | 2.3           | 3.6                          | 5.8     |
| Filter fineness  | μm   |               | 100                          |         |
| Largest/smallest pore size   | μm   |               | 120/80                       |         |
| Operating pressure   | bar  |               | 2 – 16                       |         |
| Nominal pressure   |      |               | PN 16                        |         |
| General data   |      | KD20          | KD25                         | KD32    |
| Water temperature  | °C   |               | 5 - 30                       |         |
| Ambient temperature  | °C   | 5 - 40        |                              |         |
| DVGW registration number   |      | NW-9311DL0141 |                              |         |
| SVGW certificate number  |      | 2006-6954     |                              |         |
| ÜA registration number<br>The Office of the Vienna Provincial Govern-<br>ment – City of Vienna |      |               | 15.2.3-21-17<br>15.2.1-22-17 |         |
| Order no.  |      | 101 270       | 101 275                      | 101 290 |

# 13 Operation log



Document the initial start-up and all maintenance activities.

Fine filter pureliQ: \_\_\_\_\_

| Serial | no.: |  |
|--------|------|--|
|        |      |  |

### 13.1 Start-up log

| Customer                        |     |       |      |
|---------------------------------|-----|-------|------|
| Name                            |     |       |      |
| Address                         |     |       |      |
| Installation/accessories        |     |       |      |
| Floor drain available           |     | 🗌 Yes | 🗌 No |
| Safety device                   |     | ☐ Yes | 🗌 No |
| Operating values                |     |       |      |
| Water pressure raw water inlet  | bar |       |      |
| Water pressure raw water outlet | bar |       |      |
| Residential water meter reading | m³  |       |      |
| Start-up                        |     |       |      |
| Company                         |     |       |      |
| Service technician              |     |       |      |
| Work time certificate (no.)     |     |       |      |
| Date/signature                  |     |       |      |

### 13.2 Maintenance

| Date | Work performed | Signature |
|------|----------------|-----------|
|      |                |           |
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