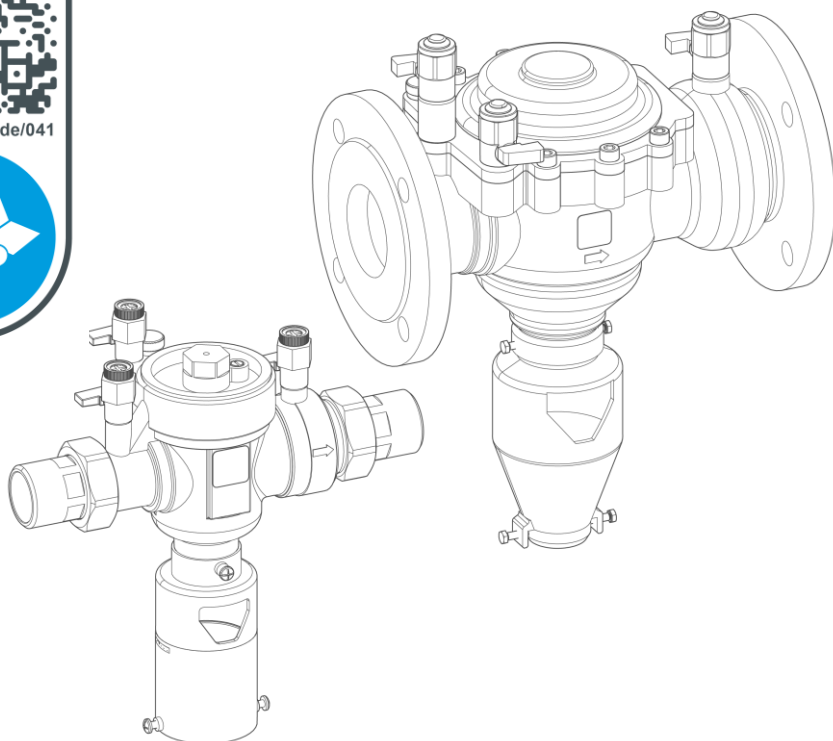




We understand water.



System separator | GENO-DK 2, DK 2-Maxi

Operation manual

grünbeck

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Subject to technical modifications.
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1 Introduction

This manual is intended for owners/operators/operating companies and 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 component instructions contained therein before you operate your product.
- Comply with all safety information and handling instructions.
- Keep this manual and all other applicable documents, so that they are available when needed.

Figures 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:

- System separator GENO-DK 2
(Order no. 132 510 – 132 570)
- System separator GENO-DK 2 Maxi
(Order no. 132 460 – 132 475)
- System separator GENO-DK Maxi
(Order no. 132 720 – 132 730)
- Special versions, which essentially correspond to the indicated standard products. Information on changes can be found on the respective information sheet that will be enclosed in these cases.

1.2 Other applicable documents



In the interests of sustainability, we provide the product data sheet and this manual on our homepage for downloading.

- Product data sheet GENO-DK 2
- Product data sheet GENO-DK 2-Maxi, GENO-DK-Maxi



You have the following options for accessing other applicable documents:

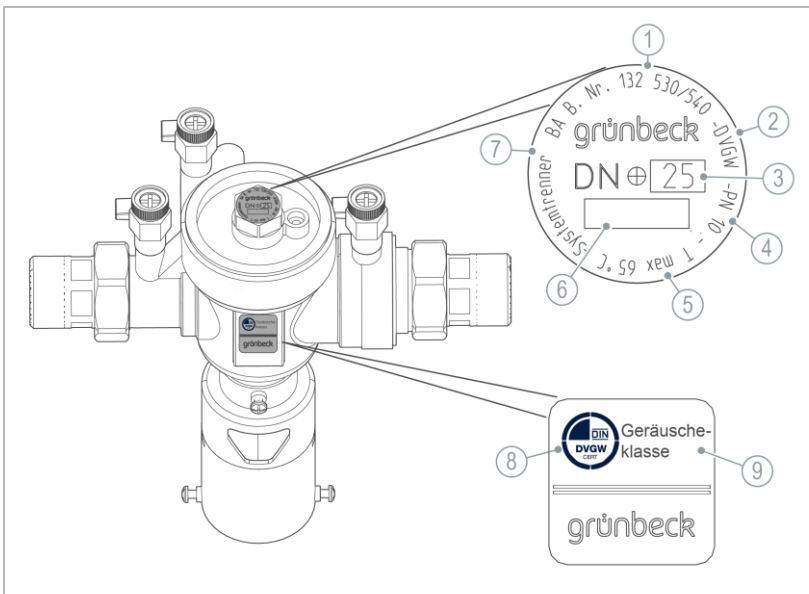
- Scan this QR code
- Use this link: gr.gruenbeck.de/041

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 housing.



Designation	
1	Order no.
2	Tested according to the DVGW's (German Association of the Gas and Water Industry) test standard
3	Nominal connection diameter
4	Nominal pressure

Designation	
5	Media temperature
6	Serial no.
7	Design
8	DVGW test mark
9	Noise rating

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 may only be carried out by qualified specialists
	Work that may only be carried out by qualified electricians
	Work that may only be carried out by technical service personnel

1.5 Depiction of warnings

This manual contains information and instructions that you must observe for your personal safety. The information and instructions are highlighted by a warning symbol and are structured as shown below:



SIGNAL WORD

Type and source of the hazard

- Possible consequences
- Preventive measures

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

Warning sign and signal word		Consequences when ignoring the information	
	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 for personnel

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

1.6.1 Qualification of personnel

Personnel	Prerequisites
User	• No special expertise required • Knowledge of the tasks assigned • Knowledge of possible dangers in case of inappropriate behaviour • Knowledge of the necessary protection devices and protective measures • Knowledge of residual risks
Owner/operator/operating company	• Product-specific expertise • Knowledge of statutory regulations on work safety and accident prevention
Qualified specialist • Electrical engineering • Sanitary engineering (HVAC) • Transport	• Professional training • Knowledge of relevant standards and regulations • Knowledge of detection and prevention of potential hazards

Personnel	Prerequisites
	Knowledge of statutory regulations on accident prevention
Technical service (Grünbeck's technical service/authorised service company)	- Extended product-specific expertise - Trained by Grünbeck

1.6.2 Authorisations of personnel

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

	User	Owner/operator/operating company	Qualified specialist	Technical service
Transport and storage		X	X	X
Installation and mounting			X	X
Commissioning			X	X
Operation and handling	X	X	X	X
Cleaning	X	X	X	X
Inspection		X	X	X
Maintenance		X	X	X
semi-annually				
Annually			X	X
Troubleshooting		X	X	X
Repair				X
Decommissioning and re-commissioning			X	X
Dismantling and disposal			X	X

1.6.3 Personal protective equipment

- As the operating company, make sure that the required personal protective equipment is available.

The following components fall under the heading of personal protective equipment (PPE):



Protective gloves



Protective footwear

2 Safety

2.1 Safety measures

- Only operate your product if all components are installed properly.
- Obey the local regulations on drinking water protection, accident prevention and occupational safety.
- Do not make any changes, alterations, extensions or program changes on your product.
- Only use genuine spare parts for maintenance or repair.
- Keep the premises locked to prevent unauthorised access and to protect endangered or untrained persons from residual risks.
- Comply with the maintenance intervals (refer to chapter 8.2). Failure to comply can result in the microbiological contamination of your drinking water system.
- Be aware of a possible risk of slipping due to leaking water on the floor.
- Risk of scalding due to escaping hot heating water.

2.1.1 Mechanical dangers

- Safety devices must never be removed, bridged, or otherwise tampered with.
- Make sure that the product is securely attached in the pipe to avoid it falling.

2.1.2 Pressure-related hazards

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

2.1.3 Group of persons requiring protection

- Children must not play with the product.
- This product must not be used by persons (including children) with limited capabilities, lack of experience or knowledge.
- Cleaning and maintenance must not be carried out by children.

2.2 Conduct in emergencies

2.2.1 In case of water leaks

1. Close the shut-off valves upstream and downstream of the product.
2. Locate the leak.
3. Eliminate the cause of the water leak.

3 Product description

3.1 Intended use

- The Euro system separator GENO-DK 2, GENO-DK 2-Maxi and GENO-DK-Maxi is a safety device to be installed in water pipes if downstream withdrawal points or systems are connected to the drinking water supply.
- The BA design system separator in accordance with DIN EN 12729 protects drinking water from impurities up to and including liquid category 4 (according to DIN EN 1717, Part 5.2).
- The system separator prevents the backflow, back pressure and back suction of modified drinking water into the drinking water network.

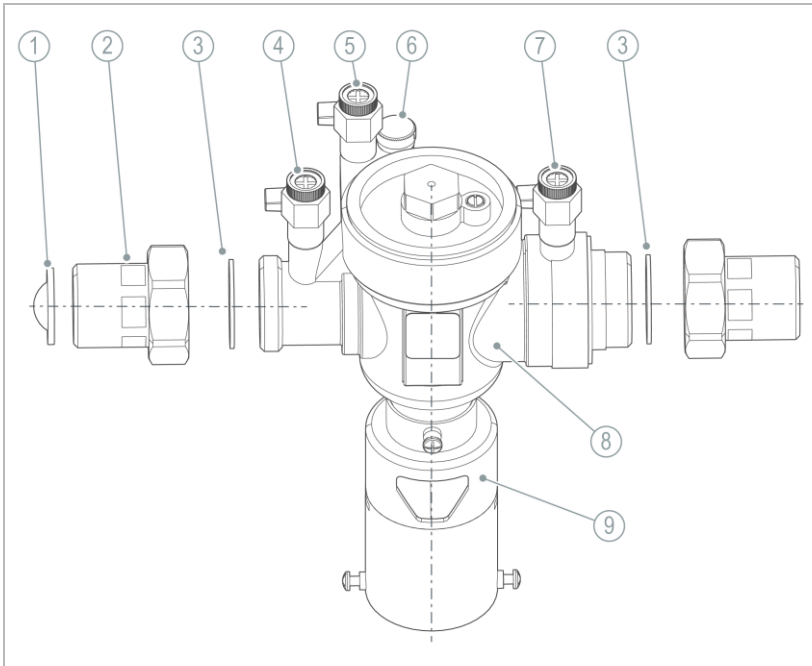
System separator designs

- GENO-DK 2 with screw connection ($\frac{1}{2}$ " – 2")
- GENO-DK 2-Maxi with flange connection (DN 50 – DN 100)
- GENO-DK-Maxi with flange connection (DN 150 – DN 250)

3.2 Product components

The components vary in shape and size depending on the design of the system separator, but they all have the same function.

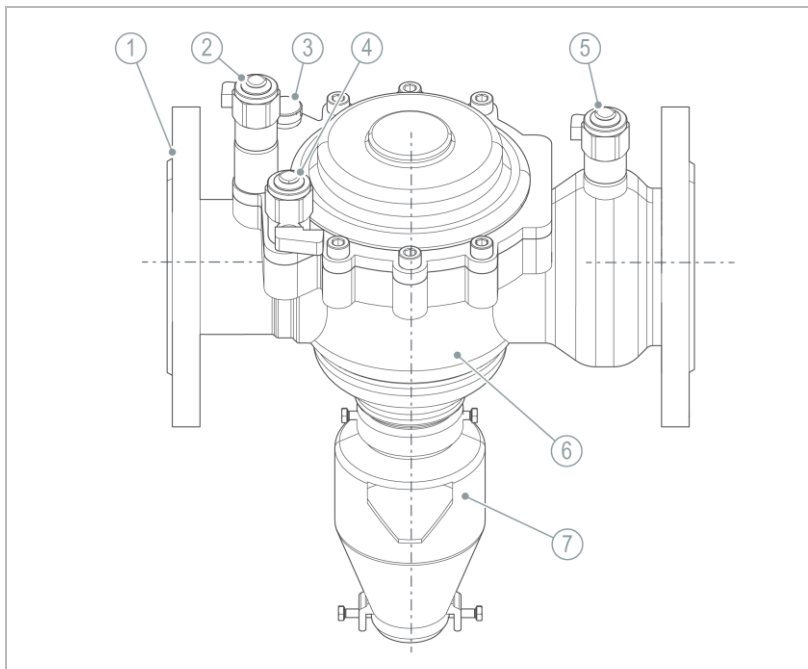
GENO-DK 2 (screw connection)



Designation	
1	Strainer insert with a coarse dirt filter
2	Water meter screw connection
3	Seal
4	Shut-off valves with screw plug, test connection upstream pressure zone
5	Shut-off valves with screw plug, test connection intermediate pressure zone

Designation	
6	Vent valve
7	Shut-off valves with screw plug, test connection downstream pressure zone
8	Housing
9	Drain connection

GENO-DK 2-Maxi (flange connection)



Designation

- | | |
|----------|---|
| 1 | Connection flange acc. to DIN EN 1092-1 |
| 2 | Shut-off valves with screw plug, test connection upstream pressure zone |
| 3 | Vent valve |

Designation

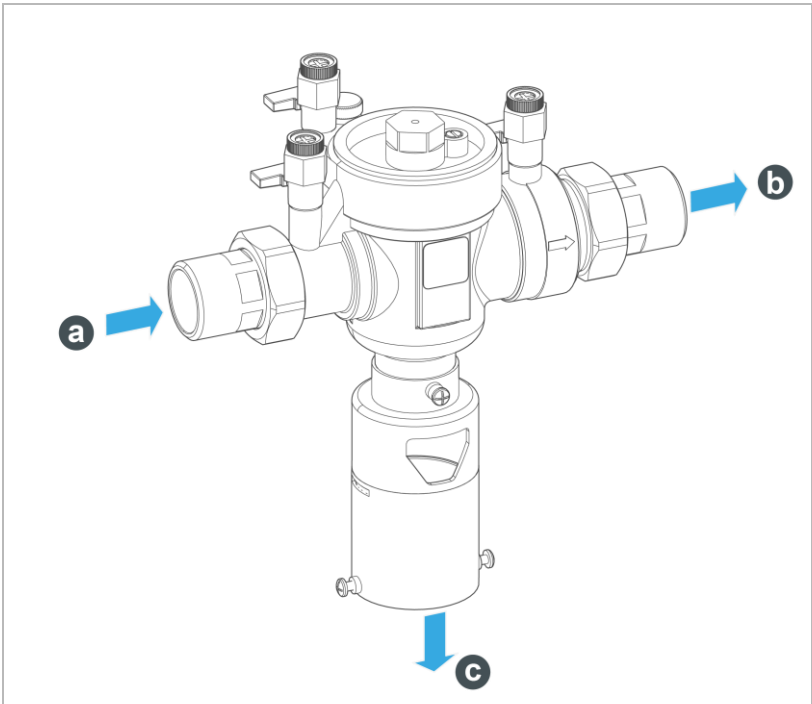
- | | |
|----------|---|
| 4 | Shut-off valves with screw plug, test connection intermediate pressure zone |
| 5 | Shut-off valves with screw plug, test connection downstream pressure zone |
| 6 | Housing |
| 7 | Drain connection |

3.3 Connections



For connection dimensions, refer to the Technical Specifications in the product data sheet.

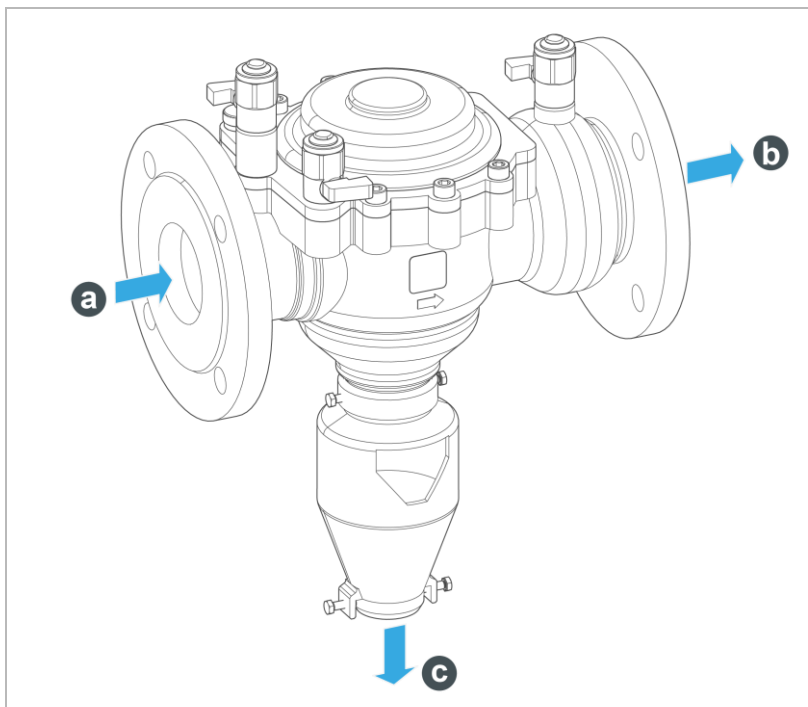
GENO-DK 2 (screw connection)



Designation

- | | |
|----------|------------------------------|
| a | Raw water inlet |
| b | Raw water output |
| c | Outlet of water to the drain |

GENO-DK 2-Maxi (flange connection)



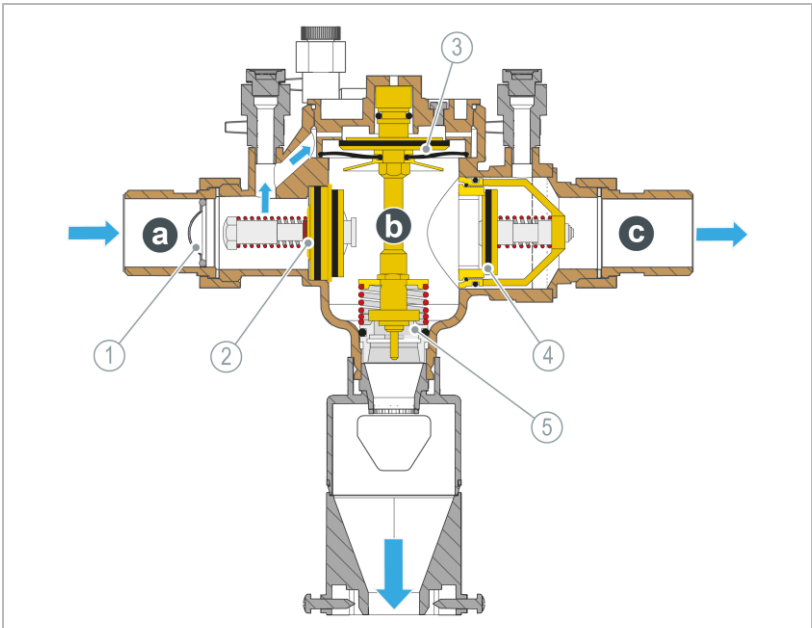
Designation

- | | |
|----------|------------------------------|
| a | Raw water inlet |
| b | Raw water output |
| c | Outlet of water to the drain |

3.4 Functional description

The system separator consists of two non-return valves and a central chamber with a diaphragm-controlled relief valve.

GENO-DK 2 (screw connection)

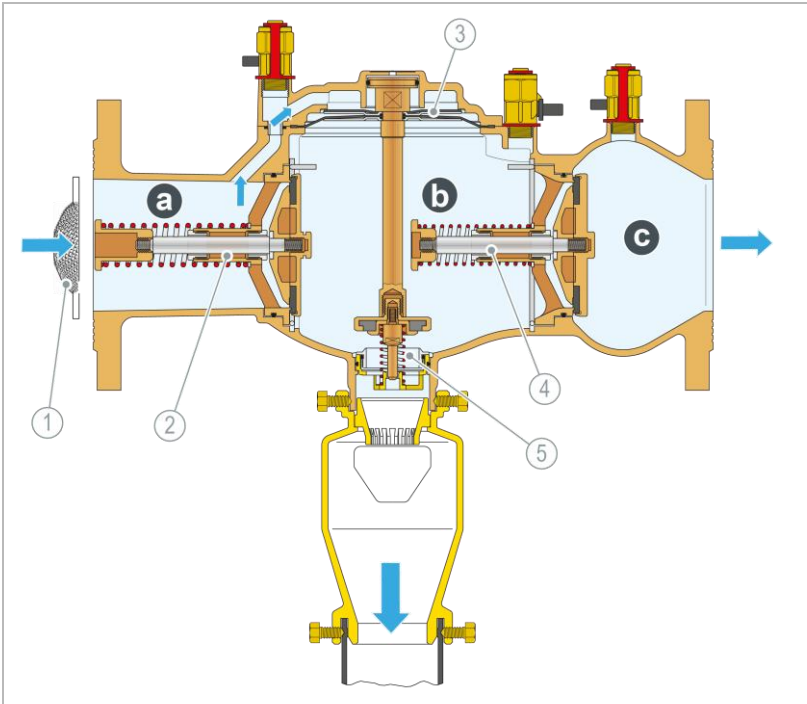


Designation

- 1 Strainer insert with a coarse dirt filter
- 2 Non-return valve inlet side
- 3 Diaphragm in the intermediate pressure zone
- 4 Non-return valve outlet side
- 5 Relief valve

- a** Upstream pressure zone (inlet)
- b** Intermediate pressure zone
- c** Downstream pressure zone (outlet)

GENO-DK 2-Maxi (flange)



Designation

- 1 Strainer insert with a coarse dirt filter
- 2 Non-return valve inlet side
- 3 Diaphragm in the intermediate pressure zone
- 4 Non-return valve outlet side
- 5 Relief valve

- a** Upstream pressure zone (inlet)
- b** Intermediate pressure zone
- c** Downstream pressure zone (outlet)

The system separator consists of an upstream, an intermediate and a downstream pressure zone. The water flows through the upstream pressure zone with an inlet-side non-return valve to the intermediate pressure zone.

If pressure fluctuations occur in the system and the upstream pressure thus drops below the downstream pressure, the intermediate pressure zone is emptied via the relief valve.

During standard operation, the pressure in the intermediate pressure zone is at least 140 mbar lower than the pressure in the upstream pressure zone. This prevents the backflow, back pressure or back suction of water.

The non-return valve on the outlet side additionally secures this.

3.5 Accessories



Accessories for your product can be found in the product data sheet.

Take into consideration that the availability of accessories can differ from country to country.

Please contact your local Grünbeck representative or Grünbeck's headquarters in Hoechst/ Germany for details.

4 Transport and storage

4.1 Dispatch/delivery/packaging

The product is protected in the factory in original packaging.

- ▶ Check immediately upon receipt for completeness and transport damage.
- ▶ In case of visible transport damage, proceed as follows:
 - Do not accept the delivery or only accept it under reserve.
 - Take note of the extent of damage on the transport documents or on the delivery note of the carrier.

4.2 Transport/installation

- ▶ Transport the product in its original packaging only.
- ▶ Use protective shoes and gloves during transport.

GENO-DK 2-Maxi and DK-Maxi



The system separators with flange are heavy and must be moved to the installation site with at least one helper and a suitable means of transport.

- ▶ Place the packages on a level and stable surface. Take the weight of the packages into account.

NOTE

Improper transport



- Damage due to falling
- The product does not feature any lifting points for lifting by means of a crane and a lifting strap.
- ▶ Do not lift the product with a crane or lifting device.
- ▶ Load/unload the secured product on a pallet with a forklift and suitable pallet forks.



CAUTION

Awkward size during transport

Transport over stairs and inclines

- Crushing due to slipping and falling
- ▶ Transport or lift the product with a minimum of two persons.
- ▶ Keep unauthorised persons away during transport and installation.
- ▶ Use suitable transport equipment (e.g. a forklift) when transporting the product to the installation site via inclines.
- ▶ Do not use any self-rolling transport equipment (e.g. Pallet trucks, trolleys without automatic braking function).

4.3 Storage

- ▶ Store the product protected from the following effects:
 - Dampness, moisture
 - Environmental impacts such as wind, rain, snow, etc.
 - Frost, direct sunlight, severe heat exposure
 - Chemicals, dyes, solvents and their vapours

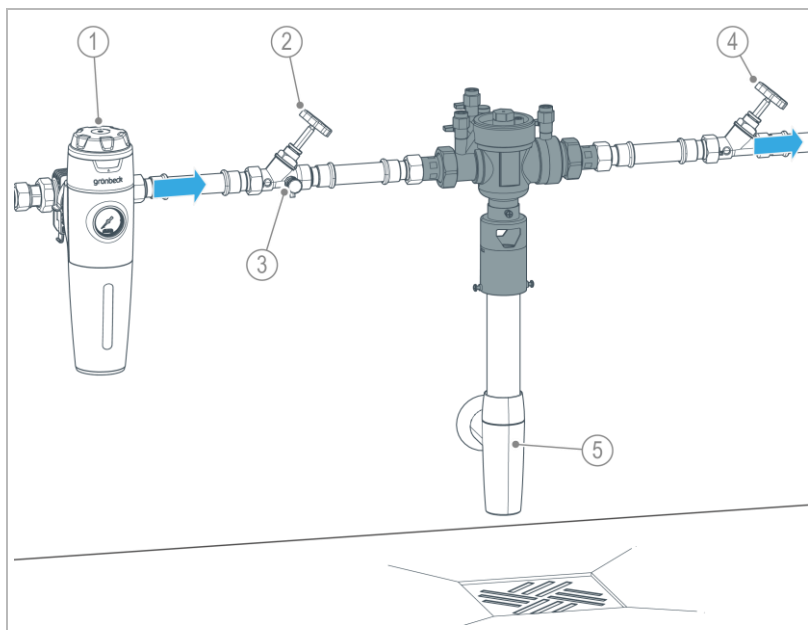
5 Installation



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

5.1 Installation example

GENO-DK 2 (screw connection)



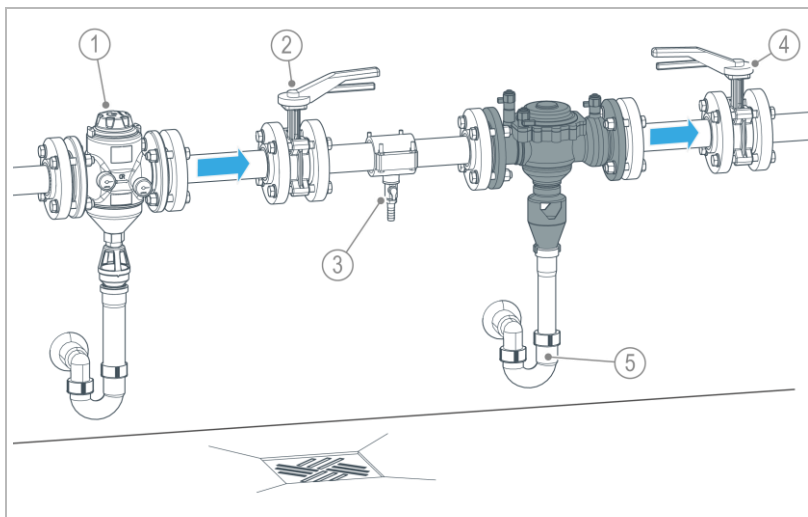
Designation

- 1 pureliQ-X drinking water filter series
- 2 Inlet shut-off valve
- 3 Draining valve

Designation

- 4 Outlet shut-off valve
- 5 Drain connection DN 40/50 acc. to DIN EN 1717

GENO-DK 2-Maxi (flange connection)



Designation

- 1 Drinking water filter e. g. MR backwash filter
- 2 Butterfly valve inlet
- 3 Draining valve

Designation

- 4 Butterfly valve outlet
- 5 Drain connection acc. to DIN EN 1717 (DN size according to the design of the drain connection)

5.2 Requirements for the installation site

Obey the local installation directives, general guidelines and technical specifications.

- Protection from frost and severe heat exposure
- Protection from chemicals, dyes, solvents and their vapours
- Ambient temperature and radiation temperature in the immediate vicinity $\leq 60\text{ }^{\circ}\text{C}$
- Access for maintenance work (take required space into consideration)
- Sufficiently illuminated as well as aerated and ventilated
- Pipe with sufficient load-bearing capacity to support the operating weight of the product

Space required

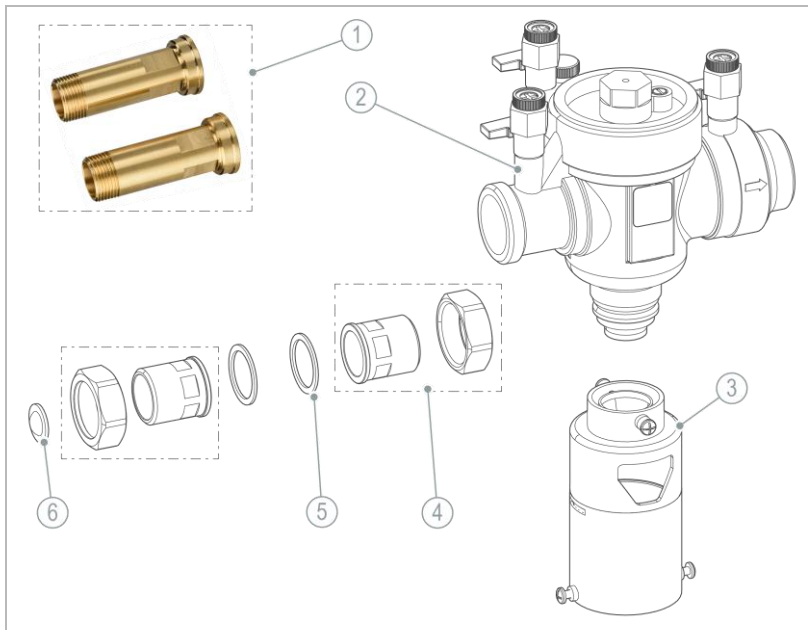
- For operation and maintenance, there must be an available space of 500 mm – 1000 mm in front of the product, depending on the product size.

Water installation

- Drinking water filter installed upstream
- Floor drain or safety device to prevent water damage
- Drain connection appropriate for the size of the system separator
- Shut-off valves upstream and downstream of the product
- Discharge valve in front of the product

5.3 Checking the scope of supply

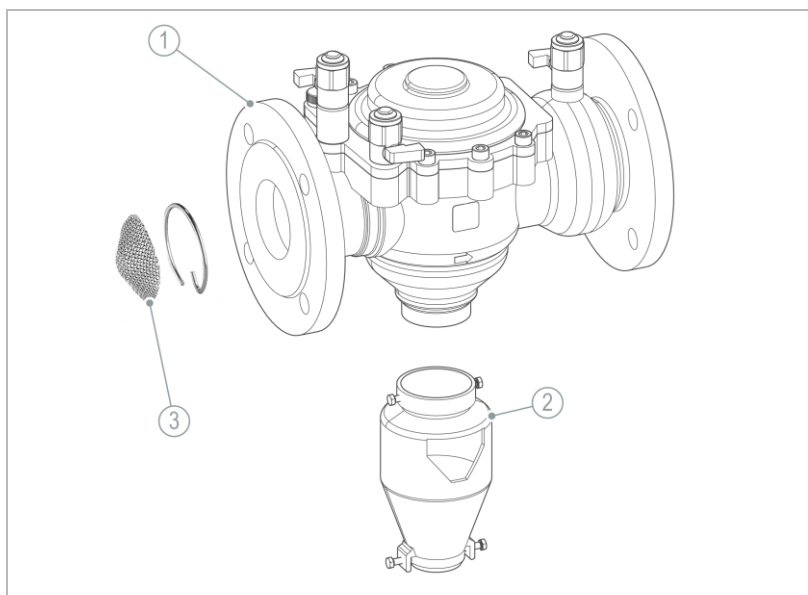
GENO-DK 2



Designation	Designation
1 Adapter kits	4 Water meter screw connection
2 Euro system separator	5 Seal
3 Drain connection	6 Strainer insert

- Check the scope of supply for completeness and damage.

GENO-DK 2-Maxi



Designation

1 Euro system separator

2 Drain connection

Designation

3 Strainer insert

► Check the scope of supply for completeness and damage.



The necessary flange connections in accordance with DIN EN 1092-1 (counterflanges, seals, fastening material) are not included in the scope of supply.

5.4 Water installation

NOTE

Dirt and corrosion particles in the pipe

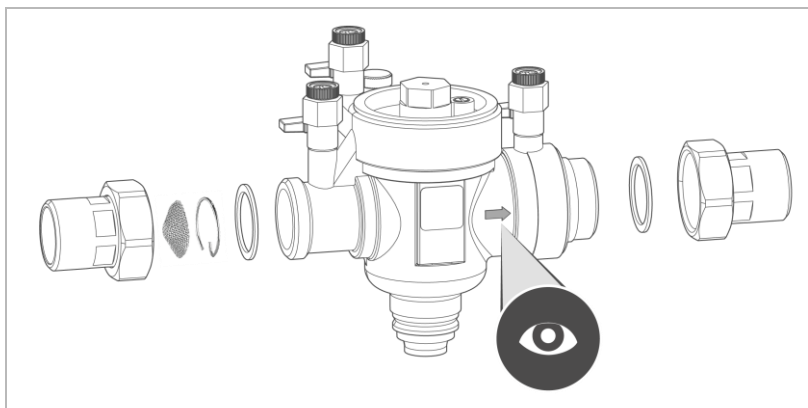
- Damage to the product
- Flush the pipe prior to installation.

5.4.1 Preliminary work



The product can be installed in a horizontal pipe.

GENO-DK 2

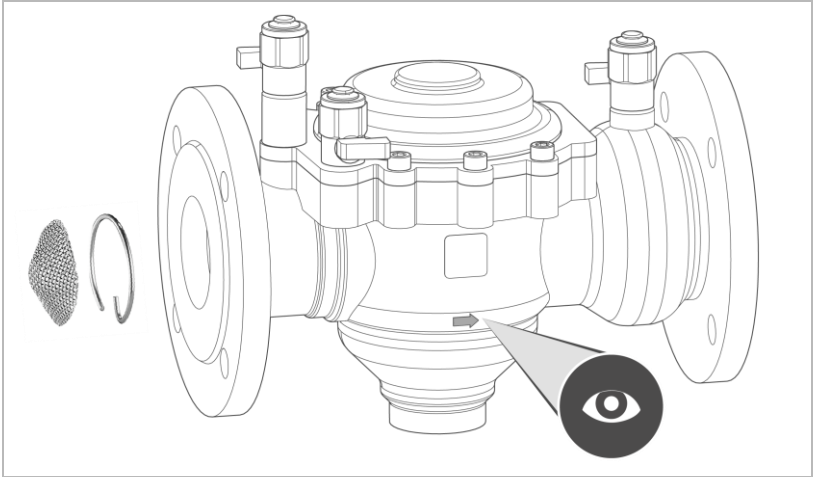


1. Determine the flow direction in the pipe.
2. Check which connection diameter is required.
 - a If necessary, use suitable adapter sets.

GENO-DK 2-Maxi



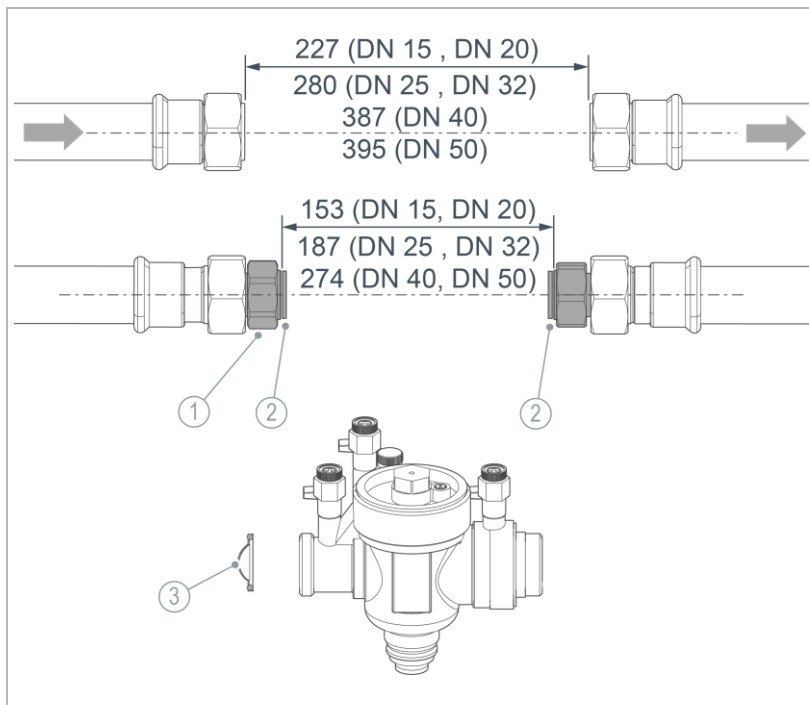
Fixtures installed upstream and downstream, e.g. butterfly valves, must not protrude into the system separator and damage internal components.



1. Determine the flow direction in the pipe.
2. Check which connection diameter is required.
3. Ensure that the pipe can bear the operating weight and that mounting free of mechanical stress is guaranteed.

5.4.2 Installation of the product in the pipe

GENO-DK 2 (screw connection)

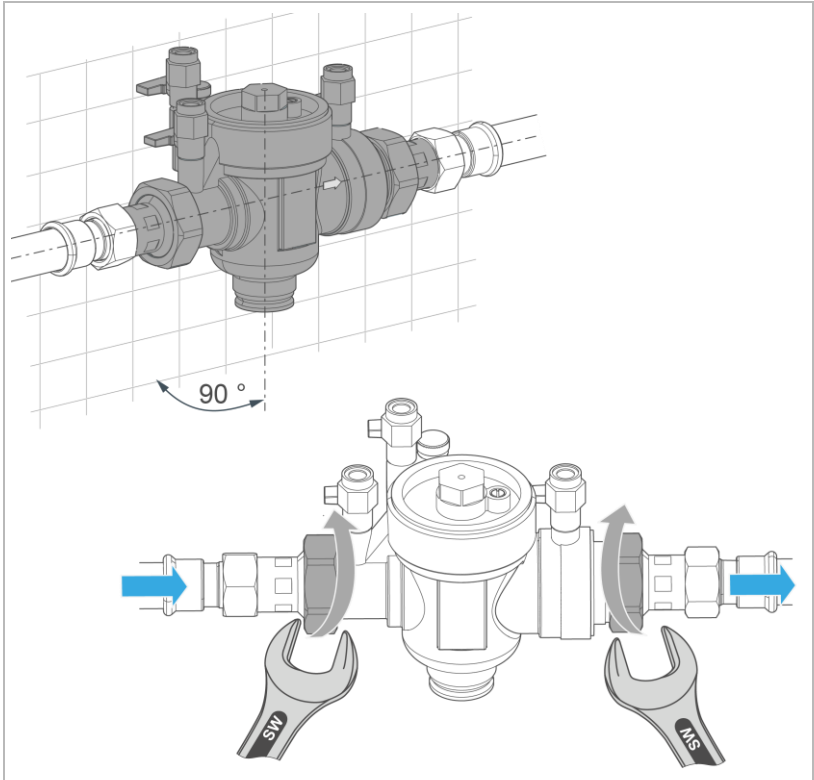


Designation	Designation
1 Water meter screw connection	3 Strainer insert (with outward bulge)
2 Seal	

1. Install the water meter screw connection with seals in the pipe.
2. Install the strainer insert at the input with the bulge facing away from the flow direction.



If the strainer insert with the bulge protrudes into the system separator, the non-return valve on the inlet side can be activated, releasing continuous draining.



3. Tighten the system separator with the union nuts free of mechanical stress.
 - a Ensure that the system separator is pointing vertically downwards at a 90° angle.

GENO-DK 2-Maxi (flange connection)

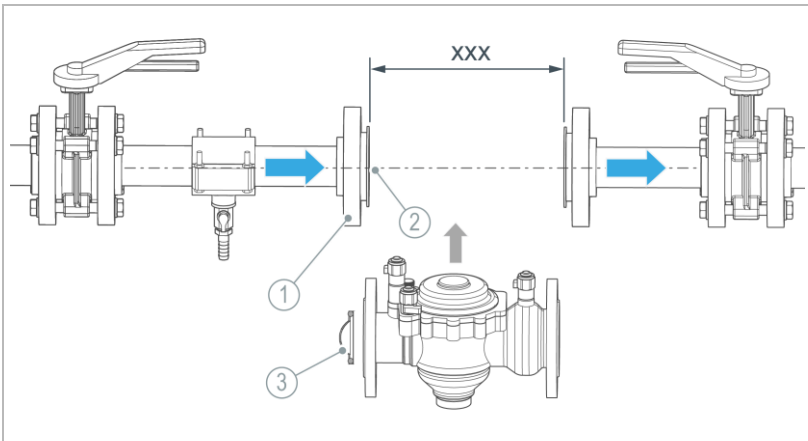
The follow system separators

DK 2-Maxi in sizes DN 50, DN 65, DN 80, DN 100 and

DK-Maxi in sizes DN 150, DN 200, DN 250

are designed with flange connection PN 10 according to DIN EN 1092-1.

- Comply with the technical specifications for the flange connection in the respective product data sheet.

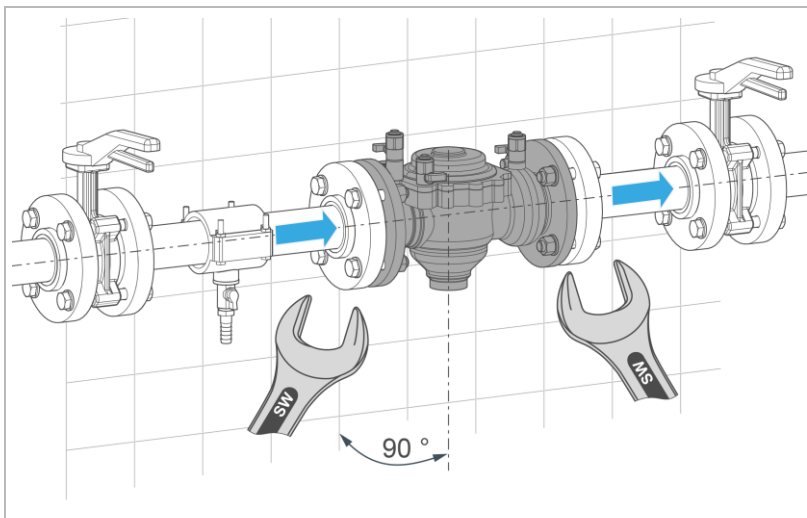


Designation	Designation
1 Flange provided by the client on site	3 Strainer insert (with outward bulge)
2 Seal	

1. Prepare the pipe with flange connection according to DIN EN 1092-1.

a Maintain the distance between the two seals (refer to the product data sheet).

2. Install the strainer insert at the input with the bulge facing away from the flow direction.



3. Tighten the system separator with the fastening devices provided by the client on site free of mechanical stress.
 - a Ensure that the system separator is pointing vertically downwards at a 90° angle.

5.4.3 Establishing the drain connection



According to DIN EN 1717, a free outlet and a backflow-free discharge of the water must be guaranteed.

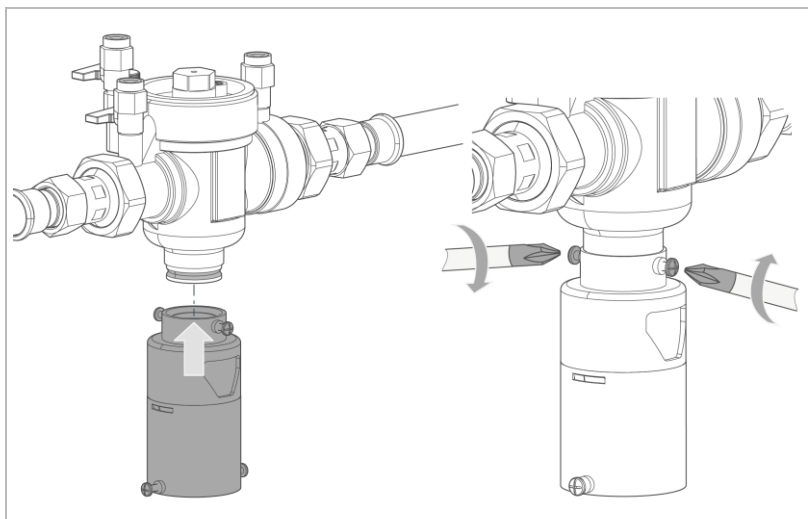
5.4.3.1 GENO-DK 2



Refer to the mounting instructions of the drain connection DN 50 according to DIN EN 1717 (order no. 188 875).

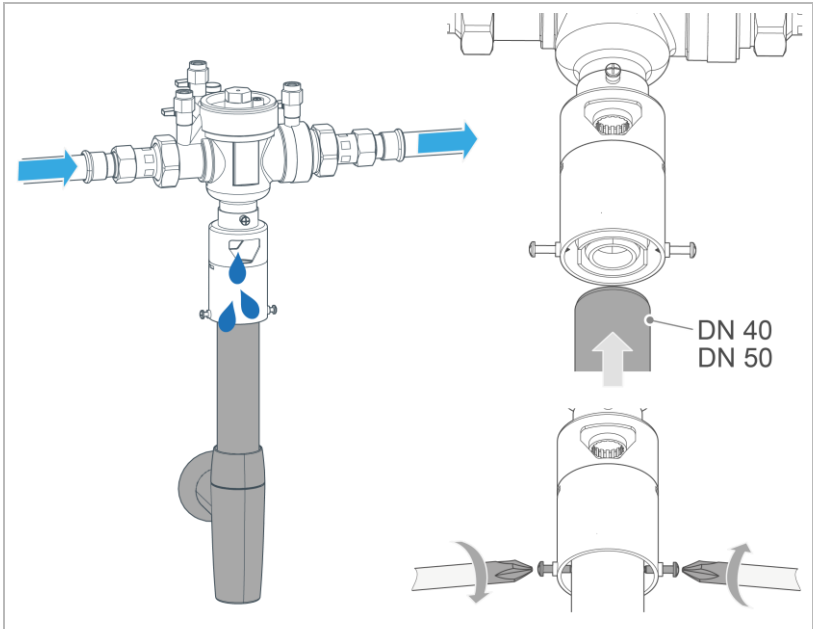
- Install the drain connection (not included in the scope of supply) provided by the client on site.

Fitting the drain connection



1. Place the drain connection on the system separator.
2. Fasten the drain connection using the side screws.
 - » The drain connection is now attached.

Establishing the waste water connection

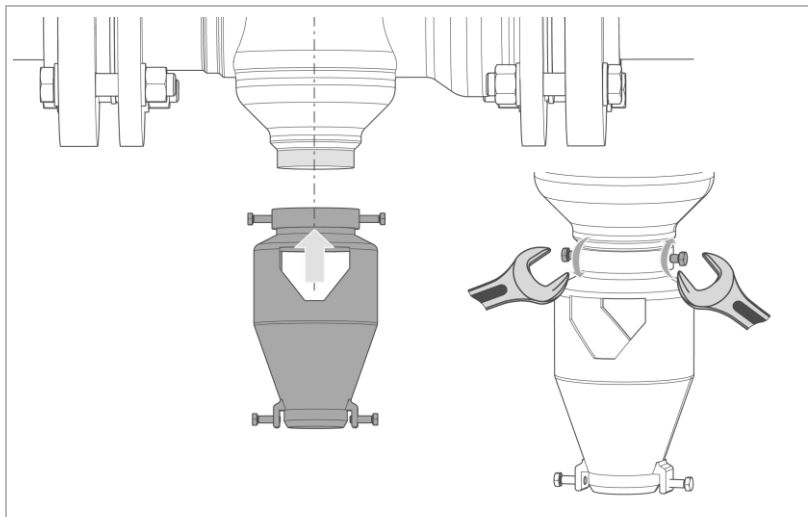


3. Install a waste water pipe DN 40 or DN 50 to the drain.
 - a Push the waste water pipe into the drain connection as far as it will go.
 - b Fit the waste water pipe using the side screws.
4. Ensure that an unrestricted outlet is guaranteed.

5.4.3.2 GENO-DK 2-Maxi

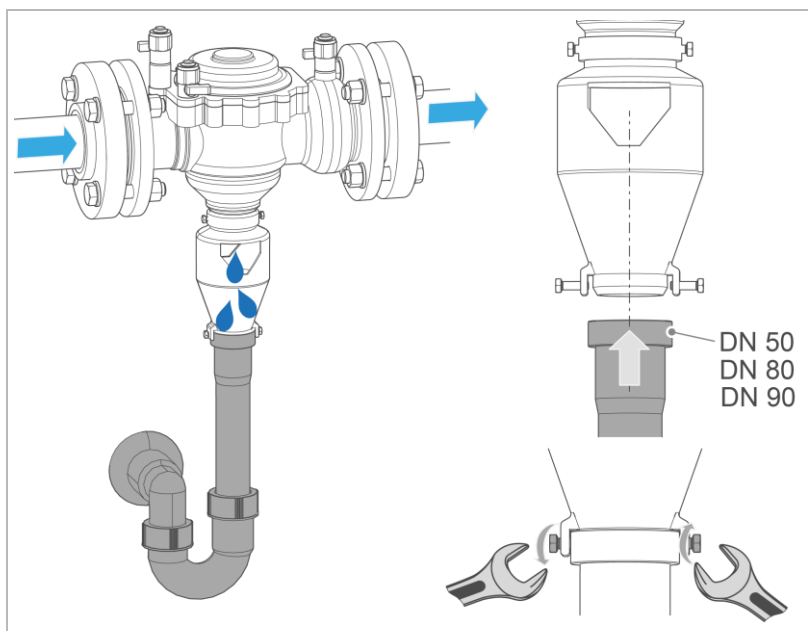
- Install the drain connection (not included in the scope of supply) provided by the client on site.

Fitting the drain connection



1. Place the drain connection on the system separator.
2. Fasten the drain connection using the side screws.
 - » The drain connection is now attached.

Establishing the waste water connection



3. Install a waste water pipe DN 50, DN 80 or DN 90 to the drain as per the system separator design.
 - a Push the waste water pipe into the drain connection as far as it will go.
 - b Fit the waste water pipe using the side screws.
4. Ensure that an unrestricted outlet is guaranteed.

6 Commissioning



The initial start-up of the product must be carried out by technical service personnel only.

6.1 Venting the product

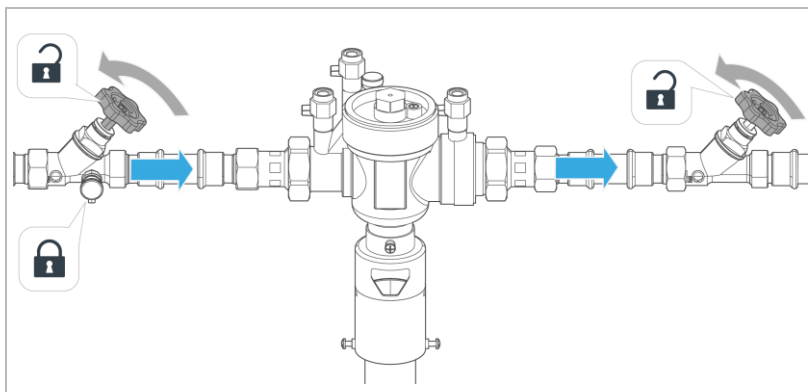


CAUTION

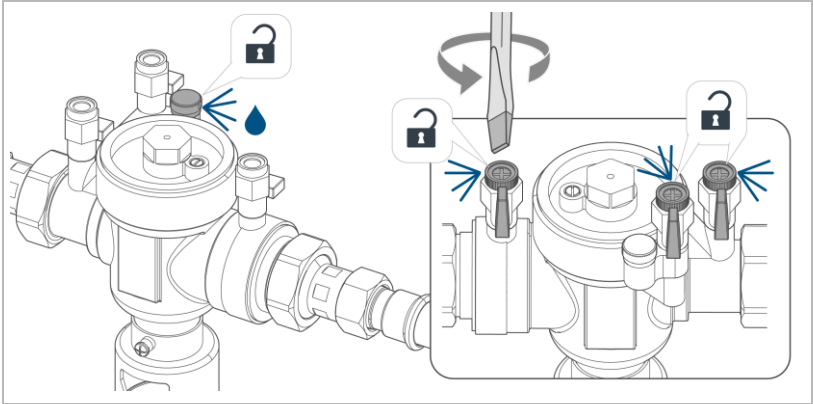
Escaping water on the floor

- Danger of falling by slipping
- ▶ Use personal protective equipment. Wear sturdy footwear.
- ▶ Immediately mop up escaped liquids.

GENO-DK 2



1. Slowly open the shut-off valves upstream and downstream of the product.
 - » The filling process begins.



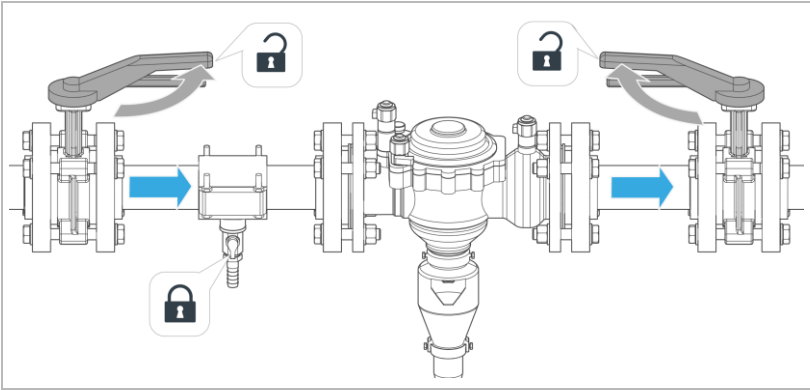
2. Open the vent valve.
3. Close the vent valve when no more air escapes.

Additional venting

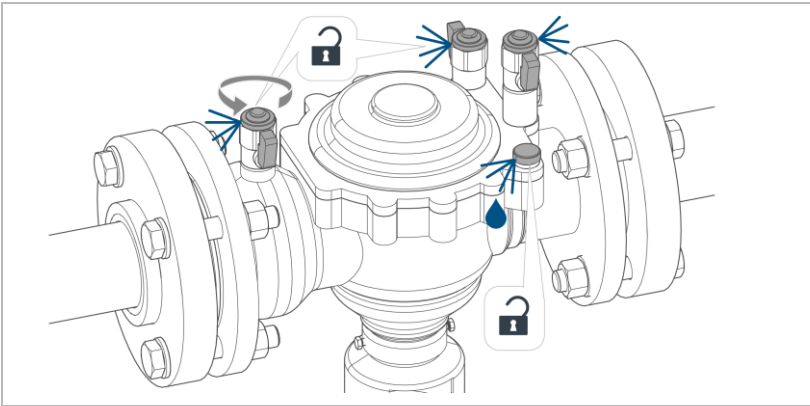
4. Open the screw plugs at the 3 test connections.
 - a Use a tool if necessary.
 - b Open the 3 shut-off valves on the test connections.

» The system separator is vented.
5. Close the screw plugs and shut-off valves when no more air is escaping.

GENO-DK 2-Maxi



1. Slowly open the butterfly valves upstream and downstream of the product.
» The filling process begins.



2. Open the vent valve.
3. Close the vent valve when no more air escapes.

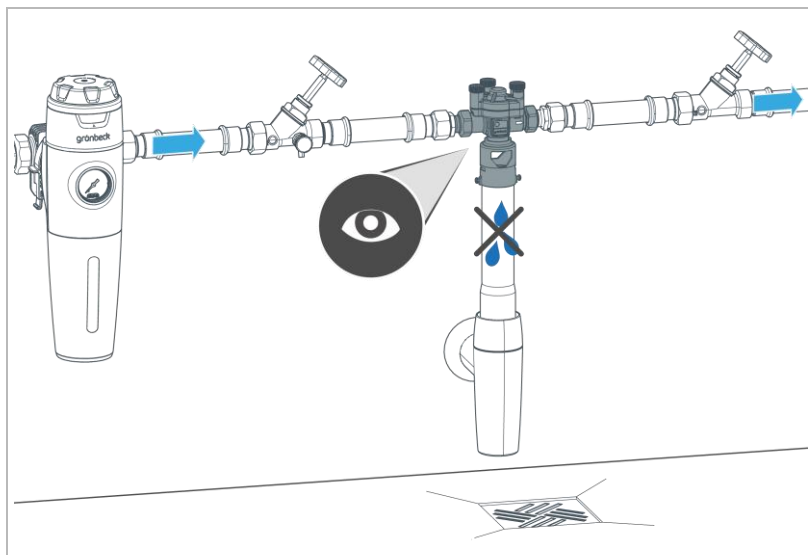
Additional venting

4. Open the screw plugs at the 3 test connections.
 - a Use a tool if necessary.
 - b Open the 3 shut-off valves on the test connections.

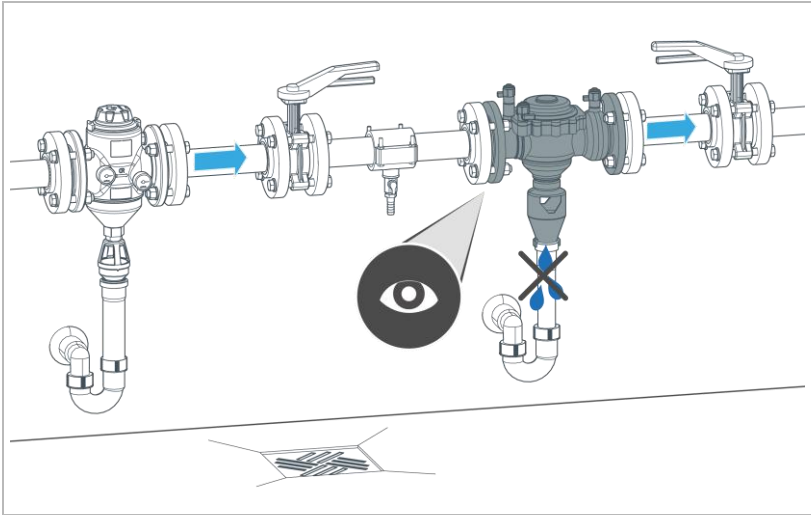
» The system separator is vented.
5. Close the screw plugs and shut-off valves when no more air is escaping.

6.2 Checking the product

GENO-DK 2



GENO-DK 2-Maxi



1. Visually check for leaks.
2. Check the system separator for function (refer to chapter 7.1).
3. Record the commissioning in the commissioning log (refer to chapter 12.1).

6.3 Handing over the product to the owner/operating company

- ▶ Explain how the product works to the owner/operator/operating company.
- ▶ Use the manual to brief the owner/operator/operating company and answer their questions.
- ▶ Inform the owner/operator/operating company regarding the need for inspections and maintenance.
- ▶ Hand over all documents to the owner/operator/operating company for safekeeping.

6.3.1 Disposal of packaging

- ▶ Dispose of packaging material as soon as it is no longer needed (refer to chapter 11.2).

6.3.2 Storage of accessories

- ▶ Keep the accessories supplied for the product in a safe place.

7 Operation/handling

Short-term, undefined water leakage at the relief valve of the system separator does not indicate a malfunction.



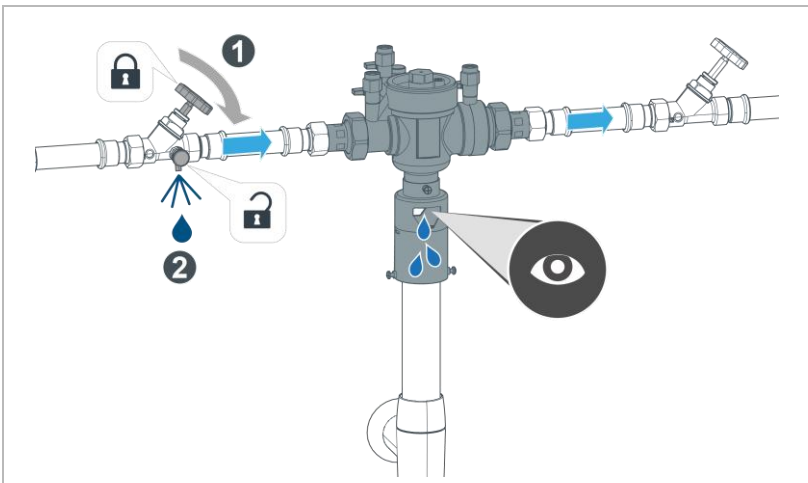
This is the normal operating performance of the system separator, caused by pressure fluctuations on the inlet side in the water supply system.

7.1 Checking the function of the system separator

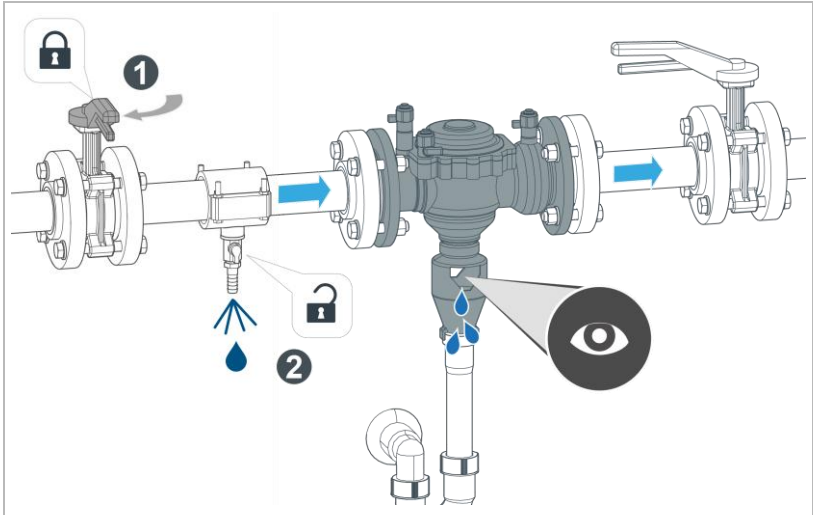
To guarantee that the system separator functions properly, the separation function and the function of the non-return valve must be checked regularly.

► Perform the functional check as follows:

GENO-DK 2



GENO-DK 2-Maxi



1. Close the shut-off valve upstream of the product.
 2. Reduce the inlet pressure.
 - a Open the draining valve upstream of the product.
- » The upstream pressure is being relieved.



The system separator must go into the separating position and completely drain the intermediate pressure zone.

- » The relief valve opens and water flows into the drain via the drain connection.
 - » The system separator works properly.
3. Close the draining valve upstream of the product.
 4. Open the shut-off valve upstream of the product.
 - » The system separator goes into the operating position.
 5. Visually check for leaks.
 - » There must not be any leaks.

8 Maintenance and repair

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



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



By concluding a maintenance contract you ensure that all maintenance work is performed on time.

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

8.1 Cleaning



Only allow cleaning work to be carried out by persons who have been instructed on the risks and dangers that can arise from the product.

NOTE

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

- Plastic components will suffer damage.
- Varnished surfaces are affected.
- ▶ Use a mild/pH-neutral soap solution.
- ▶ Use personal protective equipment.
- ▶ 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.

DIN EN 806-5 recommends regular maintenance to ensure trouble-free and hygienic operation of the product.

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

The interval table below shows the minimum intervals for the activities to be carried out.

Task	Interval	Activities
Inspection	6 months	• Visually check for leaks • Check components for damage and corrosion • Checking the function of the system separator
Maintenance	annually	• Condition and leak test • Clean strainer insert • Clean the drain connection • Perform measurements with the service kit • Check test connections • Checking the function of the system separator
	load-dependent	• See "annually"
Repair	5 years	• Recommendation: Change wearing parts

8.3 Inspection

As the owner/operator/operating company, you can carry out the regular inspection yourself. We recommend inspecting the product at shorter intervals initially and then as required.

- ▶ Carry out an inspection at least every 6 months.
 - 1. Check the product for leaks.
 - a Pay attention to leaks and puddles on the floor.
 - 2. Check all components for damage and corrosion.
 - 3. Check that the test connections are easy to operate.
 - 4. Check that the drain connection can accommodate the water and that the unrestricted outlet via the drain connection is ensured.
 - 5. Check the system separator for function (refer to chapter 7.1).
 - » No water is allowed to escape from the system separator to the drain connection.

8.4 Maintenance



Annual maintenance work requires expert knowledge. This maintenance work may only be carried out by technical service personnel.

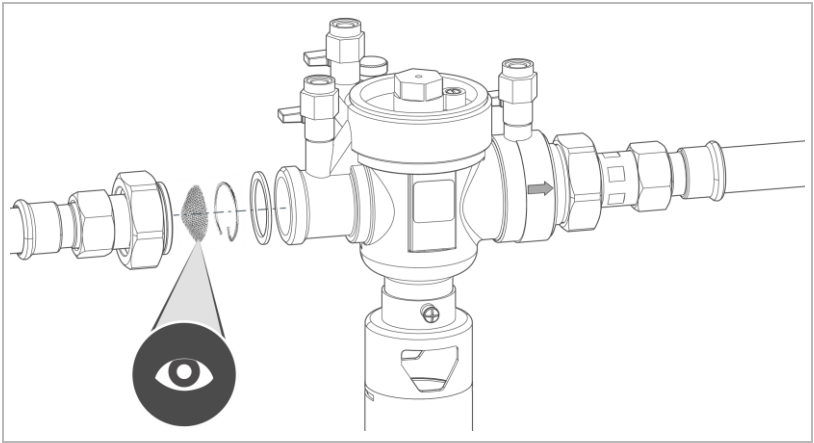


You can use the service kit for system separators (order no.132 095) to perform maintenance.

In addition to the semi-annual inspection, the following work needs to be done:

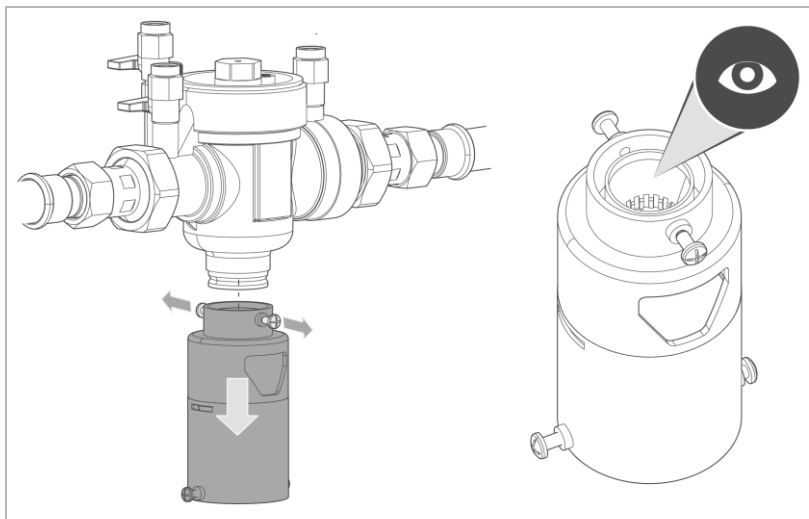
8.4.1 Clean strainer insert

If no drinking water filter is installed or as required:



1. Close the shut-off valves upstream and downstream of the product.
2. Ensure that the product and water pipe are depressurised.
3. Disassemble the assembly and check the filter insert in the raw water input for impurities.
 - a Clean the strainer insert or replace it if heavily soiled.

8.4.2 Clean the drain connection



1. Clean the drain connection (unrestricted outlet) and the ventilation openings.

8.4.3 Measuring rest, flow and differential pressure

A test in accordance with DIN EN 12729 can be carried out using the service kit (order no. 132 095).

1. Refer to the operation manual for the service kit for GENO-DK system separators for the necessary test steps.
2. Check the test connections for wear in the upstream, intermediate and downstream pressure zones.

8.4.4 Check the system separator for proper function

- ▶ Perform the functional check of the system separator (refer to chapter 7.1).

8.4.5 Concluding work

- ▶ Enter the measured values in the maintenance log in accordance with DIN EN 12729.
- ▶ Enter all work in the operation log (refer to chapter 12).

8.5 Spare parts

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

8.6 Wearing parts



Wearing parts must be replaced by qualified specialists only.

Wearing parts are listed below:

- Seals
- Non-return valve
- Relief valve
- ▶ Have the seals replaced in the event of leaks, damage or deformations.
- ▶ Have defective or worn components replaced.

9 Fault



Short-term, undefined water leakage at the relief valve of the system separator does not indicate a malfunction.

This is the normal operating performance of the system separator, caused by pressure fluctuations on the inlet side in the water supply system.

9.1 Quick check

If you notice a constant water leak at the relief valve of the system separator in the drain connection, you can use this quick check to identify the malfunction.

Observation	Explanation	Remedy
Constant dripping at the drain connection	Foreign matter, e.g. sand, impurities in the system separator	► Open the withdrawal points fully according to the product and ensure a strong flow » Foreign matter will be flushed out

- If the water continues to leak, proceed as follows:

Action	Observation	Explanation	Remedy
Step 1: Close the shut-off valve downstream of the product	Continuous water leak	Non-return valve on inlet side or relief valve leaky	► Disassembly and check
	No water leak		► Step 2
Step 2: Close the shut-off valve upstream of the product and open the draining valve	The relief valve does not open or the water leak is minimal and takes longer than 1 minute	Relief valve blocked	► Disassembly and check
	The relief valve opens immediately and the system separator is drained promptly.		► Step 3
Step 3: Open the shut-off valve downstream of the product	Continuous draining	Outlet-side non-return valve leaking	► Disassembly and check
	No draining		► Put system separator into operation again.

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

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



10 Decommissioning

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

10.1 Decommissioning



The work below must be carried out by a qualified specialist only.

1. Drain the product.
2. Leave the shut-off valves closed.

10.2 Recommissioning

- Put the product into operation again (refer to chapter 6).

10.3 Final shutdown

The final shutdown of the system constitutes an intervention in your drinking water system.

- Check whether discontinuing the product will affect the functional integrity of your drinking water system.
- Have the product dismantled by a qualified specialist.

11 Dismantling and disposal

11.1 Dismantling



The following work must only be carried out by a qualified specialist.

1. Close the shut-off valve provided by the client on site upstream of the product.
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. Close the shut-off valve provided by the client on site downstream of the product.
5. Remove the product from the pipe.
6. Close the gap in the pipe, e.g. by using an adjusting piece.

11.2 Disposal

- ▶ Comply with the applicable national regulations.

Packaging

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

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 environmental hazards.
- ▶ Dispose of packaging material in an environmentally sound manner.
- ▶ Comply with locally applicable disposal regulations.
- ▶ If necessary, commission a specialist company with the disposal.

Product



If this symbol (crossed-out wheellie bin) is on the product, this product or its electrical and electronic components, must not be disposed of as household waste.

- ▶ Dispose of electrical and electronic products or components in an environmentally sound manner.
- ▶ 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 www.gruenbeck.com.

12 Operation log



- ▶ Document the initial start-up and all maintenance activities.
- ▶ Copy the maintenance report.

System separator | GENO-DK _____

Serial no.: _____

12.1 Commissioning log

Customer			
Name			
Address			
Installation location			
Installed by/date			

Installation/accessories			
Connection diameter screw connection	☐ 1/2"	☐ 1"	☐ 1 1/2"
	☐ 3/4"	☐ 1 1/4"	☐ 2
with reducers to size	☐		
Nominal diameter flange connection according to DIN EN 1092-1	☐ DN 50	☐ DN 80	☐ DN 150
	☐ DN 65	☐ DN 100	☐ DN 200
		☐ DN 250	
Temporary strainer as coarse dirt trap in the inlet	☐ Yes		☐ No
Drain connection acc. to DIN EN 1717	☐ Yes		☐ No
Drinking water filter	☐ Yes		☐ No
Floor drain	☐ Yes		☐ No
Safety device	☐ Yes		☐ No

Water pipe		
Water pipe material	☐ Miscellaneous:	
	☐ Galvanised steel	☐ Copper
	☐ Plastic	☐ Stainless steel
Earthing for metal water pipe	☐ Yes, position:	
	☐ No	

Operating values		
Room temperature	°C	
Water pressure inlet (upstream pressure)	bar	
Water pressure outlet (downstream pressure)	bar	
Differential pressure Δp upstream/intermediate pressure zone > 0.2	bar	
Differential pressure Δp_p intermediate/downstream pressure zone > 0.1	bar	
Domestic water meter reading	m ³	

Remarks

Start-up confirmation

Person	
Name/date	
Position	
Signature	

Instructed persons

Person(s)	
Instructed person(s)	

Contact data

Person(s)	Name	Phone/email
Owner/operator/operating company		
Signature/date		
HVAC and plumbing engineer		
Electrical engineer		
Technical service		

Maintenance no.: _____



Enter all maintenance work carried out according to the intervals.
Observe the chapter “Maintenance and repair”.

Intervals		
☐ as required: _____	☐ Repair work	
☐ 6 months	☐ 12 months	☐ After standstill

► Record the values before and after maintenance work.

Operating values		before	after
Water pressure (as flow pressure)	bar		
Residential water meter reading (before/after maintenance)	m³		

► Perform the measurements using the service kit in accordance with DIN EN 12729.

Functional check/measurement values	before	after
Measurement 1 static differential pressure Upstream and intermediate pressure zone min. 0.2 bar		
Measurement 2 static differential pressure Intermediate and downstream pressure zone min. 0.1 bar		
Measurement 2 pressure > 2 min constant	☐ Yes	☐ No
Functional check of the system separator performed	☐ Yes	☐ Yes

Maintenance work	yes	no
Visual check		
Product checked for damage, corrosion and tight fit in the water pipe.	☐	☐
Product checked for leaks	☐	☐
Product checked for hygienic condition	☐	☐
Cleaning/maintenance and repair		
Housing cleaned on the outside	☐	☐
Strainer insert cleaned ☐ replaced	☐	☐
Relief valve cleaned ☐ replaced	☐	☐

Maintenance work	yes	no
Non-return valve at the inlet cleaned ☐ replaced	☐	☐
Non-return valve at the outlet cleaned ☐ replaced	☐	☐
Drain connection cleaned	☐	☐
Free outlet to the drain checked	☐	☐
On-site drain connection cleaned	☐	☐
Test connection upstream pressure zone checked for wear	☐	☐
Test connection intermediate pressure zone checked for wear	☐	☐
Test connection downstream pressure zone checked for wear	☐	☐

Description

Maintenance confirmation

Person

Name

Date

Position

Signature

Publisher's information

Technical documentation

If you have any questions or suggestions regarding this operation manual, please contact the Technical Documentation Department at Grünbeck

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