

Installation and Maintenance Manual

Stormwise - Rain Garden



0000122120 EN

© Georg Fischer Piping Systems Ltd

Ebnatstrasse 111

8201 Schaffhausen

Switzerland

Original installation and maintenance manual

Disclaimer

The technical data within this document is not binding. It does not constitute expressly warranted characteristics, guaranteed properties or guaranteed durability. It is subject to modification. Our General Terms of Sale apply.

Observe the installation and maintenance manual

The installation and maintenance manual is part of the product and an important element within the safety concept.

- ▶ Read and observe the installation and maintenance manual.
- ▶ Always have the installation and maintenance manual available by the product.
- ▶ Give this installation and maintenance manual to all subsequent users of the product.

Issue history

Version	Date	Changes
1.0	2026/02	First edition

Table of contents

1	About this document	6
1.1	Target group	6
1.2	Notes on technical documentation	6
1.3	Customer service	6
1.4	Copyright	6
1.5	Related standards and regulations	7
1.6	Notes on reading this manual	7
2	Safety information	8
2.1	Purpose of safety information	8
2.2	Meaning of signal words	8
2.3	Intended use	8
2.4	Reasonably foreseeable misuse	9
2.5	Obligations of the operator	9
2.6	Personnel requirements	9
2.7	Protective equipment	10
2.8	Safety equipment	10
2.9	Safety and responsibility	10
2.10	General safety information	11
2.11	Residual risks	11
2.12	Product specific warnings	11
3	Product description	12
3.1	Functional description	12
3.2	Technical data	16

4	Transport and storage	17
4.1	Safety instructions	17
4.2	Loading and unloading	17
4.3	Transporting	18
4.4	Storing	18
5	Installation	19
5.1	Safety instructions	19
5.2	Before installation	19
5.3	Installation procedure	20
6	Maintenance	23
6.1	Safety instructions	23
6.2	Rain Garden maintenance	23
6.3	Service log	24
7	Troubleshooting	25
7.1	Detecting a fault	25
7.2	Correcting a fault	25
8	Disposal	26
9	Spare parts and accessories	27
9.1	Spare parts	27
9.2	Accessories	27

1 About this document

This installation and maintenance manual describes the lifecycle of the rain garden from transport, installation and operation to maintenance, troubleshooting and disposal as well as safety information.

1.1 Target group

The following persons must read and observe this installation and maintenance manual:

- Persons who transport and install the rain garden
- Persons who maintain or troubleshoot the rain garden
- Persons who dispose of the rain garden

1.2 Notes on technical documentation

The technical documentation comprises the following documents:

Document
Installation and maintenance manual
Technical drawing
Fact sheet

These documents are available at www.gfps.com or from the representative of GF Industry and Infrastructure Flow Solutions.

The following rules apply to technical documentation:

- ▶ Replace old versions with new versions.
- ▶ Include all additional documentation.
- ▶ Pass documentation on to the new owner.

1.3 Customer service

- Information regarding warranty is included in the GF terms and conditions.
- Visit our webpage to get in touch with your local specialist regarding any questions about your GF solution, required trainings or any form of customer service: www.gfps.com/our-locations

1.4 Copyright

Without express written consent from GF Industry and Infrastructure Flow Solutions no part of this document may be copied, transmitted by photographic means, reproduced, translated and stored on another electronic medium.

1.5 Related standards and regulations

Standard	Content	Application
DIN 16961	Classification, dimensions, tolerances & delivery conditions for thermoplastic profile-wall pipes	Sewer pipes, wastewater
DIN EN 13476	Requirements & testing for structured-wall plastic pipes (PVC U, PP, PE)	Sewer pipes, wastewater
EN 13598	Specifies requirements, testing procedures, materials, sizes, performance, and labeling for inspection chambers and manholes	Gravity sewer and drainage systems located underground and outside of buildings
EN 1610	Installation and testing of wastewater pipes and sewers	Wastewater construction and testing
EN 12201	PE piping systems for water supply and pressure sewerage	Water supply and pressure sewer systems
DIN 18300	Technical rules for earthworks, soil/rock classification, excavation requirements	Earthworks, trenching, pipe bedding
DWA-A 139	National rules for installation & testing of wastewater pipelines (supplement to EN 1610)	Sewer construction, quality assurance
DVS 2207	Welding procedures for PE pipes (butt, socket, electrofusion)	PE pipe welding for water, gas, wastewater
ISO 12176	Requirements for equipment used for PE welding	Quality assurance of welding equipment
DVS 2202	Evaluation of welded joints, defect classification, acceptance criteria	Inspection & quality control of PE welds
DIN EN 1917	Requirements for concrete inspection chambers	Sewer manholes, access structures

1.6 Notes on reading this manual

Symbols

Symbol	Meaning
•	Listed in no particular order
▶	Call for action: here, something has to be done
1.	Call for action in a pre-defined order: here, something has to be done in the specified order

Abbreviations

Abbreviation	Indication
GF	GF Industry and Infrastructure Flow Solutions

2 Safety information

2.1 Purpose of safety information

Safety information warns of hazards that could lead to bodily injury and damage to property. Always observe and follow safety instructions to prevent accidents and injuries from occurring.

The safety instructions apply to the intended use of the product (see page 8).

The safety instructions do not cover the following:

- Incidental events occurring during installation, operation and service
- Local and site-related safety regulations

2.2 Meaning of signal words

In this installation and maintenance manual, warnings are used, which warn the user of death, injuries or material damage. Always read and observe these warnings!

DANGER!

Imminent danger!

Non-observance may result in major injuries or death.

- ▶ Measures to avoid the danger.

WARNING!

Possible danger!

Non-observance may result in serious injuries.

- ▶ Measures to avoid the danger.

CAUTION!

Dangerous situation!

Non-observance may result in minor injuries.

- ▶ Measures to avoid the danger.

NOTICE!

Avoid the situation!

Non-observance may result in property damage.

2.3 Intended use

The Stormwise rain garden is a complete solution for green water treatment in the urban environment. The plants and filter material retain and purify the stormwater runoff so it can safely be discharged to the stormwater network.

GF Industry and Infrastructure Flow Solutions accepts no liability for damage resulting from incorrect handling of the product and product components (see page 9).

Use is only considered intended if the operator observes the following:

- ▶ Use the product as described in the installation and maintenance manual
- ▶ Use within the limits specified in the technical data
- ▶ Only qualified and trained personnel carry out all activities
- ▶ Keep persons who are not working on the product at a safe distance from hazardous and operating areas

2.4 Reasonably foreseeable misuse

Any use other than that described for the intended use is not in accordance with the intended use and is therefore not permitted.

The following actions are considered misuse:

- Any use above and beyond intended use
- Alterations or modifications without the knowledge and consent of GF Industry and Infrastructure Flow Solutions
- Circumventing or removing protective equipment and safety measures
- Installing or using unsuitable products in safety-relevant applications

GF Industry and Infrastructure Flow Solutions accepts no liability for damage resulting from improper use. The risks associated with improper use are the sole responsibility of the user.

2.5 Obligations of the operator

The operator undertakes to implement measures arising from content in the technical documentation. This includes in particular:

- Ensuring compliance with laws and regulations currently applicable at the site
- Clearly marking hazardous areas
- Training and instructing personnel
- Providing personal protective equipment
- Enforcing prohibitions and mandatory requirements
- Ensuring devices to secure the shut-off elements are fitted
- Ensuring signs warning against uncontrolled reactivation are provided

2.6 Personnel requirements

Personnel who carry out installation, operation and maintenance are subject to strict requirements.



WARNING!

Injury because of insufficient personnel qualification!

Danger of injury when unqualified personnel carry out installation, operation and maintenance.

- ▶ Only qualified personnel carry out all work.

NOTICE!

Property damage because of insufficient personnel qualification!

Danger of property damage when unqualified personnel carry out installation, operation and maintenance.

- ▶ Only qualified personnel carry out all work.

This installation and maintenance manual assigns activities to the following personnel:

- Installation personnel
- Operating personnel
- Maintenance personnel
- GF personnel

Only persons who meet the following requirements are authorized as personnel:

- They are qualified within the required field (e.g. welding, piping construction, loading). The customer is responsible that the qualifications are sufficient.
- They carry out all work according to currently applicable local standards and regulations.

2.7 Protective equipment

Persons remaining or working in the vicinity of hazardous and operating areas are required to wear general or special personal protective equipment.

WARNING!

Injury due to personal protective equipment not being worn!

Unprotected body parts may be injured.

- ▶ Wear the mandatory personal protective equipment.

During installation, operation and maintenance procedures, the following personal protective equipment must be used:



Protective gloves when required by the conditions



Steel toe-cap safety shoes with non-slip soles



Workwear and high-visibility warning clothing



Protective goggles or a face shield when required by the conditions



Safety helmet at constructions sites and in the water compartment



Safety belt in the water compartment

Other personal protective equipment (e.g. respiratory protection) must always be selected according to the task being performed.

2.8 Safety equipment

Safety equipment can be installed in the product. Contact your local GF representative to customize your product accordingly.

Examples of safety equipment are:

- Emergency stop switches
- Level sensors
- Measuring devices for oxygen measuring

2.9 Safety and responsibility

- ▶ Only use the product as intended (see page 8).
- ▶ Do not use a damaged or defective product or component.
- ▶ Immediately report any damages or defects to GF Industry and Infrastructure Flow Solutions.
- ▶ Make sure that the piping system has been installed or repaired professionally and that it is inspected regularly.

2.10 General safety information

Observe the installation and maintenance manual

- This installation and maintenance manual is part of the product and an important element within the safety concept.
- Only qualified personnel, who have the required training, knowledge or experience, are allowed to commission, install, operate, maintain, and disassemble the product.
- ▶ Read and observe the installation and maintenance manual.
- ▶ Provide the installation and maintenance manual to all current and subsequent users of the product.
- ▶ Regularly instruct personnel on all questions regarding the local regulations applying to occupational safety and environmental protection, especially for pressurized pipes.

WARNING!

Injury due to damaged products!

Danger of injury due to the use of defective or damaged products.

- ▶ Do not use a damaged or defective product.
- ▶ Replace any damaged or defective products immediately.

CAUTION!

Injury due to product modifications!

Risk of injury due to product modifications or incompatible spare parts.

- ▶ Do not modify the product or its internal and external components.
- ▶ Only use original spare parts from GF Industry and Infrastructure Flow Solutions or approved third-party components.

NOTICE!

Property damage due to product modifications!

Risk of property damage due to product modifications or incompatible spare parts.

- ▶ Do not modify the product or its internal and external components.
- ▶ Only use original spare parts from GF Industry and Infrastructure Flow Solutions or approved third-party components.

NOTICE!

Property damage due to damaged products!

Risk of property damage due to the use of defective or damaged products.

- ▶ Do not modify the product or its internal and external components.
- ▶ Only use original spare parts from GF Industry and Infrastructure Flow Solutions or approved third-party components.

2.11 Residual risks

In spite of structural and control-related measures, there may be residual risks even if the product is used as intended.

The following section identifies residual risks that have been determined by GF Industry and Infrastructure Flow Solutions.

To minimize residual risks, observe the following points:

- General legal and company safety regulations
- Recognized technical rules for safe and proper practices
- All safety instructions contained in this installation and maintenance manual
- All safety instructions contained in the bought-in part documentation
- All accident prevention regulations currently in effect in the country of installation

2.12 Product specific warnings

WARNING!

Injury due to incompatible materials!

Incompatible materials can be attacked by aggressive media, which can cause injuries.

- ▶ Confirm chemical compatibility before use.

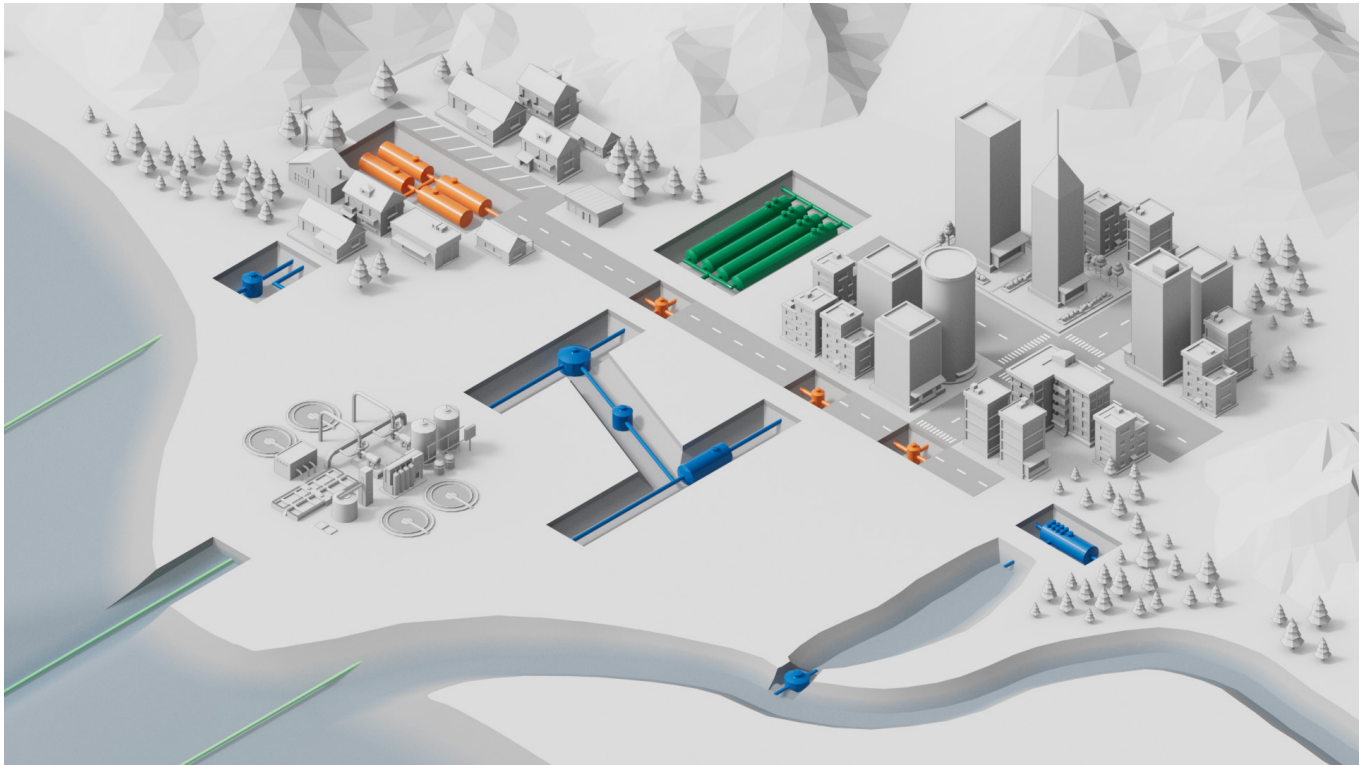
NOTICE!

Property damage due to incompatible materials!

Incompatible materials can be attacked by aggressive media, which can cause property damage.

- ▶ Confirm chemical compatibility before use.

3 Product description



Color	Designation	Color	Designation
Orange	Retention	Dark green	Harvesting
Blue	Treatment	Light green	Marine outfall

3.1 Functional description

Increased rainfalls and heavier storms have created a higher risk of city floodings. Uncontrolled runoffs can inundate our neighborhoods, create environmental and economical damages and contaminate precious water resources.

GF Stormwise is a complete stormwater management solution that helps urban planners and water network professionals designing sustainable projects to prevent flooding and pollution of water sources.

GF Stormwise provides a wide range of innovative products for stormwater handling and treatment including water reservoirs, flow regulation units, and water purification chambers.

GF Stormwise comprises the following functional entities:

Retention

Retention solutions help storing and delaying stormwater in reservoirs near the source, before forwarding the water into the municipal network, preventing capacity overload. Flow regulation managed safely keeps the size of the retention at an optimal and cost-efficient volume. Sustainability: efficient protection against floods that cause environmental and economic damage. The Stormwise retention tank and the technical chambers are described in a separate installation and maintenance manual.

Treatment

Pollution from traffic, buildings, material and other operations are accumulated on the ground in dry periods. In a thunderstorm, pollutants are washed off the ground and follow the stormwater system into the water bodies. Treatment solutions purify stormwater by removing a wide range of contaminants: waste, particles, oil, microplastics, etc. Sustainability: reducing pollutant concentrations and improving the status of water bodies. The rain garden, a solution for treatment is described in this installation and maintenance manual.

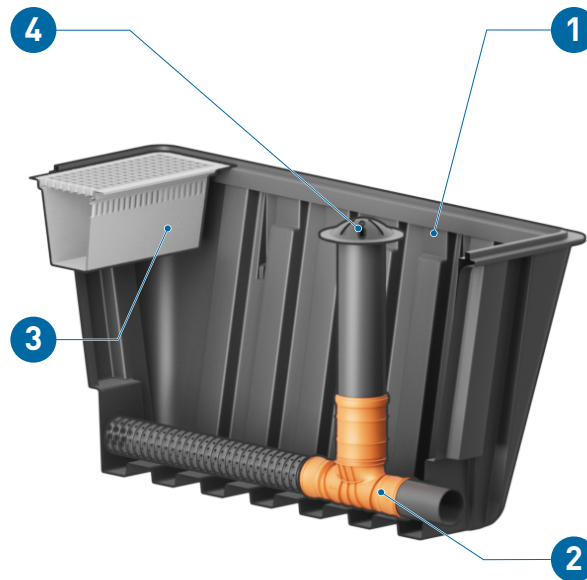
Harvesting

Harvesting is collecting and reusing stormwater for irrigation, flushing toilets or other usage where drinking water is not needed. Sustainability: using stormwater contributes positively to the reuse of resources for the local benefit. The Stormwise harvesting tank is described in a separate installation and maintenance manual.

Marine outfall

Marine outfall pipes efficiently discharge collected and purified stormwater from large paved areas such as city centers and commercial areas into nearby waterbodies. Sustainability: secures safe runoff and protects the constructed environment from floodings. The solutions for marine outfall are described in a separate manual.

3.1.1 Rain Garden

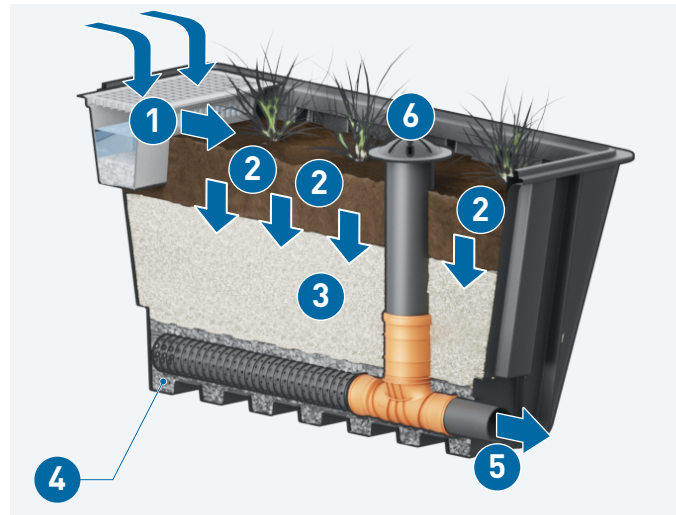


Pos.	Designation	Pos	Designation
1	Housing with filter material	3	Sandbox
2	Outflow	4	Overflow

The rain garden is a compact, prefabricated solution for green water treatment in urban environments. The rain garden collects, delays, and purifies stormwater runoff from heavy metals and oils, reducing the risk of watercourse pollution. The system is watertight, making it suitable for areas with challenging soil conditions such as high groundwater levels. Installation is quick and easy thanks to its modular design, which can be buried or partly above ground—for example, to collect roof water at foundation level. Units can be installed individually, in parallel, or in series.

Purification occurs in both the filter material and vegetation. Different substrates can be selected based on desired retention and purification capacity.

A rain garden is ideal for urban, retail, or residential areas and can be installed even where groundwater levels are higher than the outlet, provided water is diverted away from the site. One rain garden typically serves a drainage area of 130–150 m²



Pos.	Designation	Pos.	Designation
1	Sandbox	4	Water seeps through collection layer
2	Water seeps through filter substrate	5	Water outflow
3	Water seeps through filter layer	6	Overflow

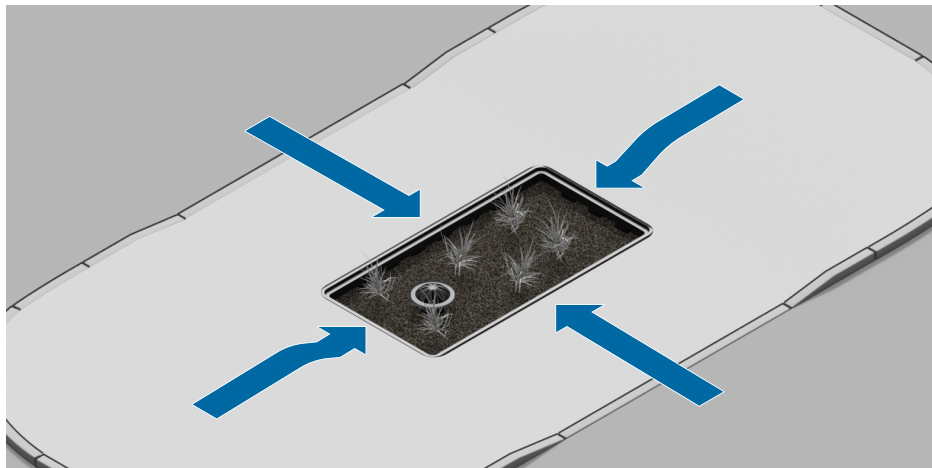
The water is collected at the sandbox or flows directly onto the rain garden. The water then seeps through the filter substrate and the filter layer before it seeps into the collection layer. From the collection layer, the filtrated water flow out of the water outflow. In case of an overflow, the water flows up and out of the overflow pipe.

Optional components:

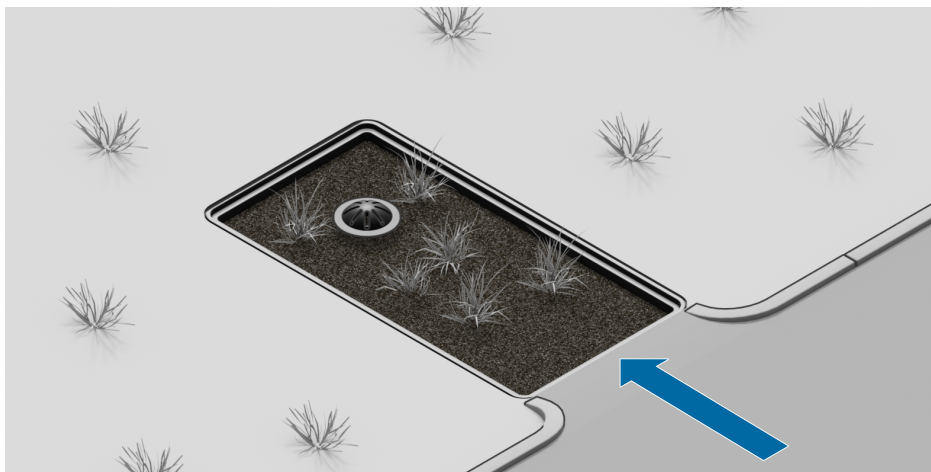
- Sandbox
- Anchoring system

There are different placement options possible:

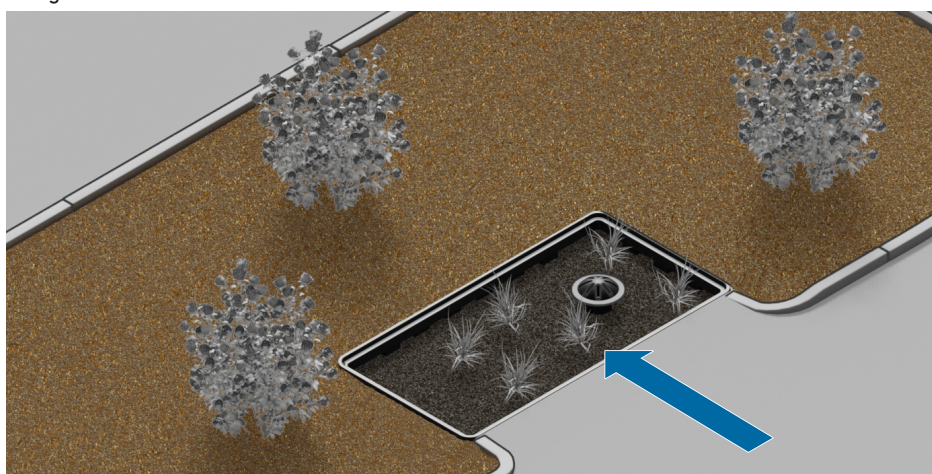
- Water flow from all sides:



- Water flow from the short side:



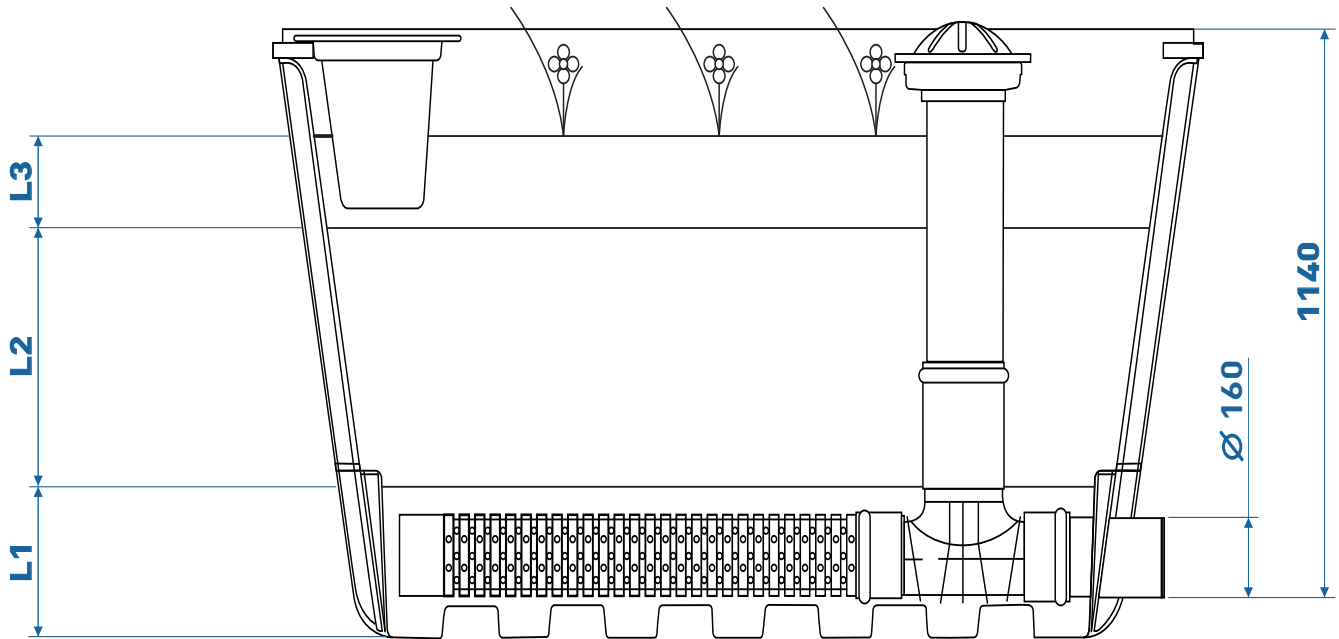
- Water flow from long side:



Key characteristics:

- Enables green water purification
- Reduces the risk of pollution
- Easy and fast to install
- Works with challenging soil conditions
- Easy to maintain

3.2 Technical data



Technical data

Application	Infiltration of Stormwater	
Material	Polyethylene (PE)	
Color	Black	
Medium	Stormwater	
Temperatures	Ambient	- 40 °C to 50 °C
	Medium	0 °C to 40 °C
Dimensions	2400 x 1300 x 1200 mm	
Growth layer (L3)	200 mm	
Filter layer (L2)	600 mm	
Collection layer (L1)	250 mm	
Installation depth from the bottom of the outlet	1140 mm	
Outlet and inlet pipe DN	160 mm	
Weight	17 kg	

4 Transport and storage

4.1 Safety instructions

- ▶ Only properly trained personnel carry out all loading and unloading work.
- ▶ Ensure that the personnel performing the work wear appropriate personal protective equipment.
- ▶ Ensure that the personnel performing the work are trained in health and safety.

NOTICE!

Risk of property damage!

Non-observance of guidelines can cause property damage.

- ▶ Observe the guidelines below for loading and unloading, transporting and storage.

The rain garden must be handled, transported and stored with care. Note the following points:

- The rain garden and its components must not be damaged either by mechanical or thermal influences.
- The machinery and equipment used for handling the rain garden must be technically flawless and adapted to the type of cargo.
- ▶ Transport and store the rain garden in its original packing.
- ▶ Protect the rain garden from harmful physical influences.
- ▶ Avoid contact of the rain garden with chemicals, gasoline, or diesel fuel.
- ▶ Avoid handling and transporting of the rain garden at air temperatures below -20 °C.

4.2 Loading and unloading

DANGER!

Risk of injury due to suspended loads!

Falling suspended loads can cause serious or fatal injuries.

- ▶ Never stand or walk under suspended loads.

NOTICE!

Rain garden damage while lifting!

- ▶ Make sure that the lifting belts do not damage any protruding parts.
- ▶ Ensure availability of unloading equipment on the construction site.
- ▶ Before unloading, ensure that the rain garden is undamaged. Record any claims or complaints directly with the driver on the delivery documents
- ▶ Handle the rain garden with care.
- ▶ Rain gardens can be stacked on top of each other. Ensure that the load is secured properly.
- ▶ Always lift the rain garden with appropriate lifting gear, for example a forklift.
- ▶ For loading and unloading, only use approved, checked and intact gear and equipment.
- ▶ Only use lifting belts and hanging loops made of soft materials, e.g. nylon.
- ▶ Do not use cables, wires or chains that might scratch or harm the surface of the rain garden.
- ▶ Ensure that the lifting gear can handle the weight of the load.
- ▶ Ensure that the lifting belts do not damage any protruding parts.
- ▶ Do not slide the rain garden.
- ▶ Avoid sudden stress. This applies in particular at ambient temperatures below -20 °C, as the impact strength of plastics is significantly reduced at these temperatures.
- ▶ Do not turn the rain garden upside down to ensure that no loose parts fall out of the rain garden.

4.3 Transporting

- ▶ Ensure access to the construction site for the logistics company.
- ▶ Ensure proper preparation of the access route to accommodate trucks. Take into account the trucks' size and weight.
- ▶ Use a transportation platform, which is clean, flat and without any pointy or sharp objects.
- ▶ Rain gardens can be stacked on top of each other. Ensure that the load is secured properly.
- ▶ Use wide cargo straps to secure the load.
- ▶ Place the rain garden on the platform so that any protruding elements are protected from damage.
- ▶ Do not use cables, wires or chains to secure the load.
- ▶ Avoid contact of belt buckles and the rain garden, e.g. by using rubber pads.
- ▶ Cover all openings to prevent dirt from entering the rain garden.
- ▶ Ensure that loose parts inside of the rain garden are properly secured to not damage the rain garden walls.

4.4 Storing

- ▶ Choose a clean and even storage site.
- ▶ Store the rain garden in its original packing.
- ▶ Ensure that there are no sharp objects like nails or stones on the storage site bottom.
- ▶ Carefully inspect the rain garden at the time of delivery and notify and report any defects immediately.

5 Installation

5.1 Safety instructions

WARNING!

Injury because of insufficient personnel qualification!

Danger of injury when unqualified personnel carry out installation and maintenance.

- ▶ Only qualified personnel carry out all work.

NOTICE!

Buoyancy due to ground water!

If the rain garden is installed in an area of high ground water, the rain garden could be lifted by the groundwater.

- ▶ Use the GF anchoring kit to counteract the lifting force.

NOTICE!

Property damage because of insufficient personnel qualification!

Danger of property damage when unqualified personnel carry out installation and maintenance.

- ▶ Only qualified personnel carry out all work.

5.2 Before installation

The customer is responsible for handling the rain garden and other equipment and installing at the site.

The rain garden must be installed with care. Note the following points:

- ▶ Check the rain garden for general damage or flaws prior to installation.
- ▶ Avoid installation of the rain garden at air temperatures below -20 °C.
- ▶ Handle Weholite products as described in currently applicable standards and regulations.

5.2.1 Prerequisites

- Any work on site, including excavation and backfilling, must be done in compliance with the respective local regulations.
- ▶ Arrange a suitable installation location for the rain garden in cooperation with local authorities. The minimum distance to traffic areas is 0.5 m.
- ▶ Arrange and prepare a suitable storage site so that the rain garden can be placed on an even surface over its whole length.
- ▶ Ensure easy access for transport equipment to the installation site.
- ▶ Arrange suitable and adequate lifting gear on site.
- ▶ Arrange relevant connective work (drilling etc.).
- ▶ Arrange excavation and fill on site with suitable materials and by suitable methods (see page 22).
- ▶ When receiving the rain garden, handle carefully to avoid damage by lifting or other equipment.

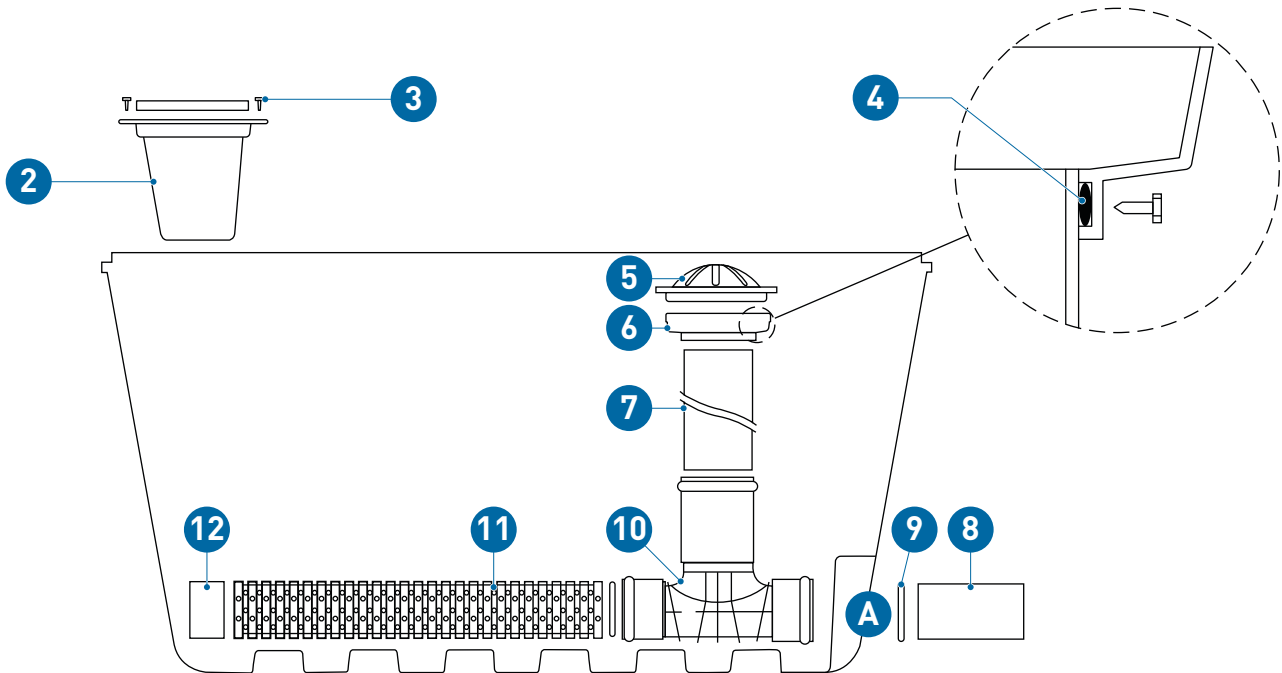
5.2.2 Required tools and materials

For the correct installation, the following equipment is required apart from standard tools:

- Proper lifting equipment
- Proper excavation equipment
- Proper tooling for the rain garden assembly

5.3 Installation procedure

5.3.1 Assembling the Rain Garden components



Pos.	Designation	Pos	Designation
A	Borehole position	7	Overflow pipe
1	Rain garden body	8	Outlet pipe
2	Sandbox	9	Wall penetration sealing
3	Screw	10	Rodding tee
4	Seal ring	11	Drainage pipe
5	Cast-iron dome	12	End plug
6	Connector		

- ▶ Drill a hole at the borehole position of the size of the outlet pipe (160 mm).
- ▶ Lubricate all necessary parts for assembly.
- ▶ Push the outlet pipe with the wall penetration sealing through the borehole and connect it with the rodding tee inside the rain garden body.
- ▶ Assemble the pipes and overflow components in the rain garden according to the image above.
- ▶ Fasten the screws according to the image above. If a sandbox is included, fasten the screws after positioning (see page 21) and filling the rain garden (see page 22).
- ▶ Cover the overflow pipe temporarily to prevent filler material falling in the overflow during the filling of the rain garden body.

5.3.2 Digging the Rain Garden pit

- ▶ Ensure that the bottom and walls of the pit are free of stones, bricks, debris, and other objects that may cause mechanical damage to the rain garden.
- ▶ Size the pit so that there is space enough to anchor the rain garden properly (see page 21).
- ▶ If the surrounding soil is wet and/or poorly water permeable (solid rock, clay, etc.), it is recommended to drain the pit if possible.

5.3.3 Preparing the bottom layer

The rain garden is laid on a bottom layer that eliminates unevenness and ensures even support.

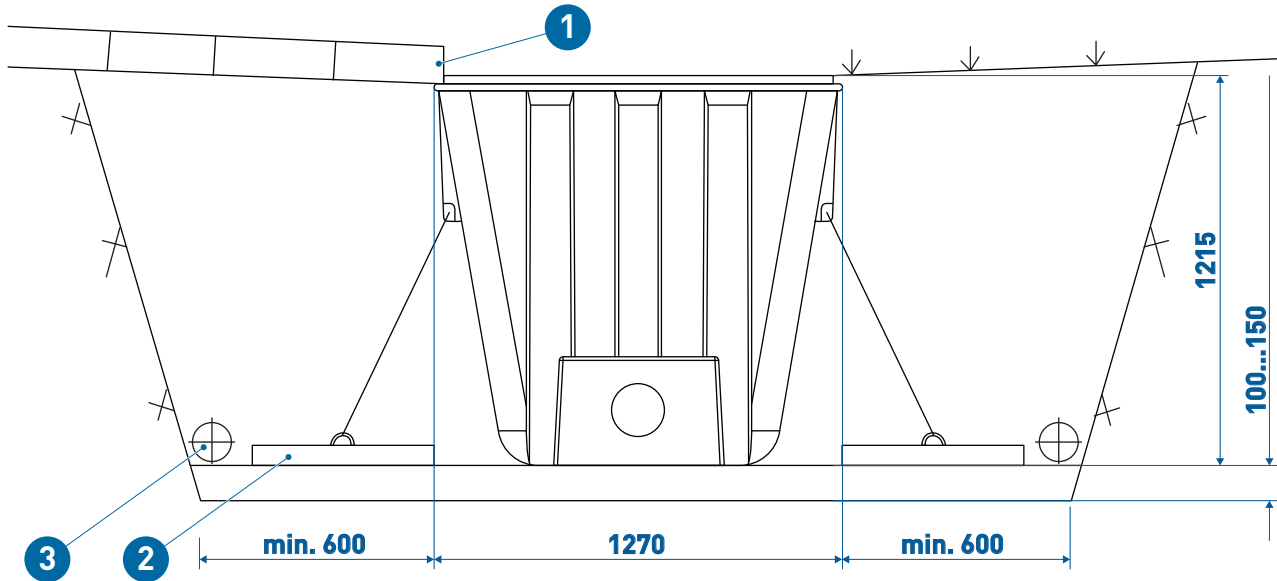
- ▶ Do not install the rain garden directly onto a concrete base or solid rock.

1. Prepare the pit with a bottom layer of at least 20 cm of sand, gravel or crushed stone (maximum grain size 32 mm).
2. Make sure that the floor is level.

5.3.4 Positioning the Rain Garden on the bottom layer

- Rain garden lifting must be carried out following the instructions for loading and unloading (see page 17).
 - The stressing of connections and other structural parts must be prevented.
1. Place the rain garden on the bottom layer.
 2. Level the rain garden. The basis for the proper functioning of the rain garden is its proper leveling.
 3. Make sure that the connections are at the correct height.
 4. Remove any temporary supports used during transport after the rain garden is in its required position and adequately supported.

5.3.5 Anchoring



Pos.	Designation	Pos	Designation
1	Paving	3	Drainage
2	Anchor plate		

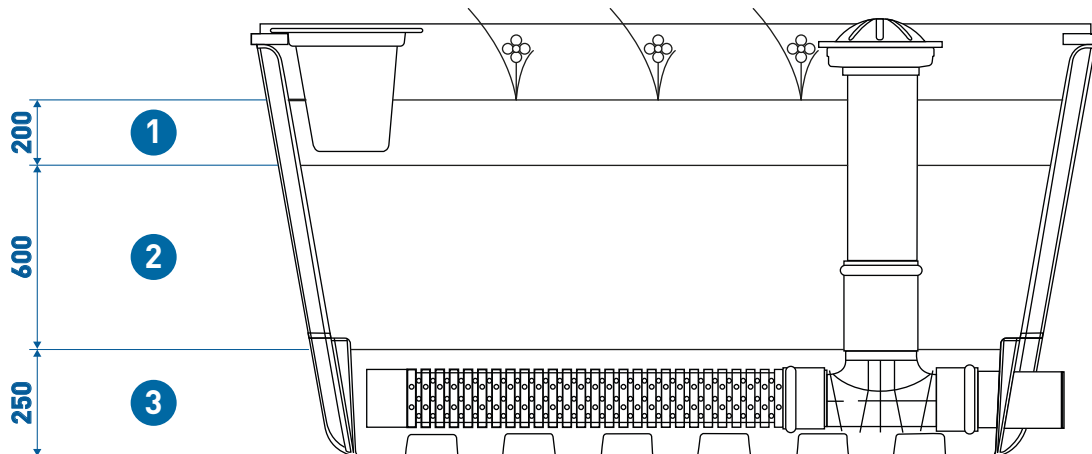
The rain garden can be anchored to counteract buoyancy caused by groundwater. A specially designed and dimensioned anchoring kit is available for this purpose:

- ▶ Place the anchor plates wider than the rain garden and connect them with the rain garden body.
- ▶ If the soil surface around the rain garden is paved with stones, the paving stones can be installed to rest on the rain garden rim after backfilling (see page 21).

5.3.6 Backfilling around the Rain Garden

- ▶ Fill up the pit with stone free sand or gravel.
- ▶ Compact the backfilling material in 20-30cm layers.
- ▶ If necessary, install paving stones to rest on the rain garden rim (see page 21).

5.3.7 Filling the infiltration materials



Pos.	Designation	Pos.	Designation
1	Growth layer	3	Collection layer
2	Filter layer		

1. Fill up the collection layer with gravel sized 8-16 mm to a height of 25 cm.
2. Level the outflow pipe horizontally.
3. Ensure that the outflow pipe is covered.
4. Fill up the filter layer with filter sand and a 10 % biochar mixture to a height of 60 cm.
5. Fill up the growth layer with soil appropriate for the chosen vegetation to a height of 20 cm.

5.3.8 Planting the Rain Garden

- ▶ Choose plants that can tolerate both standing water and periods. Plants should also withstand road salt from meltwater.
- ▶ Choose vegetation from various shrubs, grasses or perennials.
- ▶ Plant the vegetation in the soil of the growth layer.

6 Maintenance

6.1 Safety instructions

WARNING!

Injury because of insufficient personnel qualification!

Danger of injury when unqualified personnel carry out installation and maintenance.

- ▶ Only qualified personnel carry out all work.

NOTICE!

Property damage because of insufficient personnel qualification!

Danger of property damage when unqualified personnel carry out installation and maintenance.

- ▶ Only qualified personnel carry out all work.

To ensure the safety of personnel maintaining a rain garden, the following rules must be strictly followed:

- If applicable, employers are responsible for ensuring that all maintenance personnel are properly trained and are equipped with the necessary personal protective equipment (PPE).
- Failure to comply with safety requirements voids any liability or damage claims.

6.2 Rain Garden maintenance

- ▶ Check for litter and debris around the inflow and remove them.
- ▶ After some years in use, the rain garden body can be filled with roots. When there are signs of clogging, exchange the filling material.

7 Troubleshooting

7.1 Detecting a fault

- The rain garden does not work properly.

7.2 Correcting a fault

- ▶ Always work systematically and purposefully, even when under time pressure. Random, thoughtless disassembly might result in an inability to determine the original cause of the error.
- ▶ Get a general idea of the function of the product in conjunction with the overall system.
- ▶ Try to find out whether the product or a functional part of it worked properly in conjunction with the overall system before the error occurred.
- ▶ Try to clarify the cause of the error.
- ▶ Check whether any changes were made immediately before the error occurred.
- Were there any changes to the conditions or the area of application of the rain garden?
- Were any changes (e.g. refitting) or repairs carried out on the overall system or on the rain garden?
- Was the rain garden used as intended?
- Have the environmental conditions changed?
- How did the fault become apparent?

Fault	Recommended action
The water does not infiltrate.	▶ Exchange the filling material.

- ▶ For support regarding any fault, visit the website www.gfps.com/our-locations to contact your local GF specialist.

8 Disposal

- ▶ Before disposal, separate the individual materials into recyclable materials, normal waste and hazardous waste.
- ▶ For questions concerning the disposal of the rain garden, contact your local representative of GF Industry and Infrastructure Flow Solutions.
- ▶ Observe local regulations, standards and guidelines.
- ▶ Consult the technical data sheet of the rain garden.
- ▶ A component marked with this symbol must be taken to separate collection of electrical and electronic equipment:



The full plastic rain garden body can be recycled as such by companies specialized in recycling plastic complexes into products, that don't require drinking water approval and allow using recycled raw materials. Up-to-date lists of such companies can be viewed from local plastic manufacturers associations web pages.

9 Spare parts and accessories

9.1 Spare parts

Contact your GF representative for information on spare parts for your GF product.

9.2 Accessories

Contact your GF representative for information on accessories for your GF product.

Excellence in Flow

Visit our webpage to get in touch with your local specialist:

www.georgfischer.com/locations



The information and technical data (altogether "Data") herein are not binding, unless explicitly confirmed in writing. The Data neither constitutes any expressed, implied or warranted characteristics, nor guaranteed properties or a guaranteed durability. All Data is subject to modification. The General Terms and Conditions of Sale of Georg Fischer Piping Systems apply.



0000122120 EN
© Georg Fischer Piping Systems Ltd
8201 Schaffhausen/Switzerland, 2025