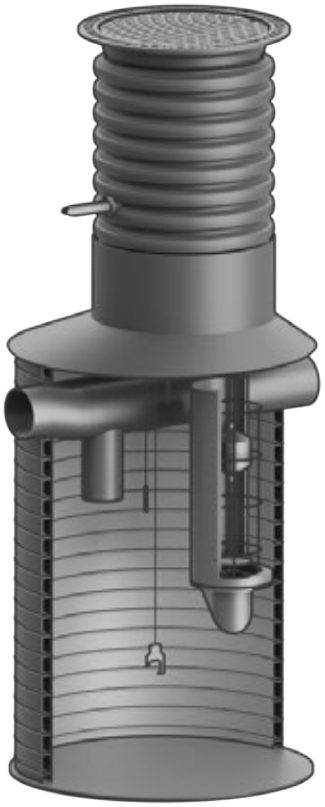
GF Industry and Infrastructure Flow Solutions

Installation and Maintenance Manual

Stormwise - Oil Separators



0000122119 EN
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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
2.0	2026/04	Second edition
3.0	2026/07	Updated DoP; minor drawing revisions.

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1 About this document

This installation and maintenance manual describes the lifecycle of a Stormwise oil separator 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 oil separator
- Persons who operate, maintain or troubleshoot the oil separator
- Persons who dispose of the oil separator

1.2 Notes on technical documentation

The technical documentation comprises the following documents:

Documents
Installation and maintenance manual
Technical drawings
Fact sheets

These documents are available at www.gfps.com or from the local 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.
► Regularly check for the latest version.

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
DIN 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
DIN EN 858	Design and performance requirements for oil separators	Treatment of stormwater and wastewater

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	Georg Fischer

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 use of the product as described under “Intended use” (see page 10).
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 GF Stormwise oil separator is used for separating sedimenting mineral suspensions, oil and gasoline substances from rainwater, which cannot be discharged to the receiver, sewage system or local sewage treatment plants. The oil separator is used for treating rainwater from the drainage of streets and car parks, in the treatment of technological sewage from machinery industry plants, gas stations, manual and automatic car washes, repair workshops, etc.

GF Industry and Infrastructure Flow Solutions accepts no liability for damage resulting from incorrect handling of the product and product components (see page 11).

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

- Use the product as described in the operating instructions
- 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
- Use spare and wear parts that comply with original part specifications
- Replace wear parts within the specified intervals

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
- limit switches

2.9 Safety and responsibility

- ► Only use the product as intended, see “Intended use” (see page 10).
- ► 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!

Risk 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.

⚠ WARNING!

Injury due to hazardous media!

Risk of injury because of hazardous chemicals or solvents.

- ► Wear the mandatory personal protective equipment.

⚠ 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.

⚠ CAUTION!

Risk of electric shock!

Internal components may carry hazardous voltages that can cause serious injury or death if touched.

- ► Before working on wiring or terminals, always ensure the power supply is completely disconnected (zero potential).
- ► Installation, handling, and servicing must be performed only by qualified personnel trained in electrical safety and authorized to work on industrial instrumentation.

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

⚠ WARNING!

Danger of drowning!

High water pressure can pose a risk of personal injury.

► Close all closing valves when working inside the product.
► Wear a safety belt when working inside the product.

⚠ WARNING!

Danger of suffocation!

Lack of oxygen inside the product can pose a risk of personal injury.

► Ensure sufficient air ventilation when working inside the product.
► Install or wear oxygen monitoring sensors.
► Do not work alone inside the product.

⚠ CAUTION!

Danger of falling over!

The inside of the product can still be slippery because of residual water, even if the product was drained or due to a biofilm or grease from equipment after maintenance.

► Wear safety shoes with non-slip soles.
► Do not step into residual puddles.

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.

⚠ WARNING!

Injury due to high pressures!

Excessive pressure can pose a risk of injury.

► Do not exceed maximum temperature/pressure specifications.

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.

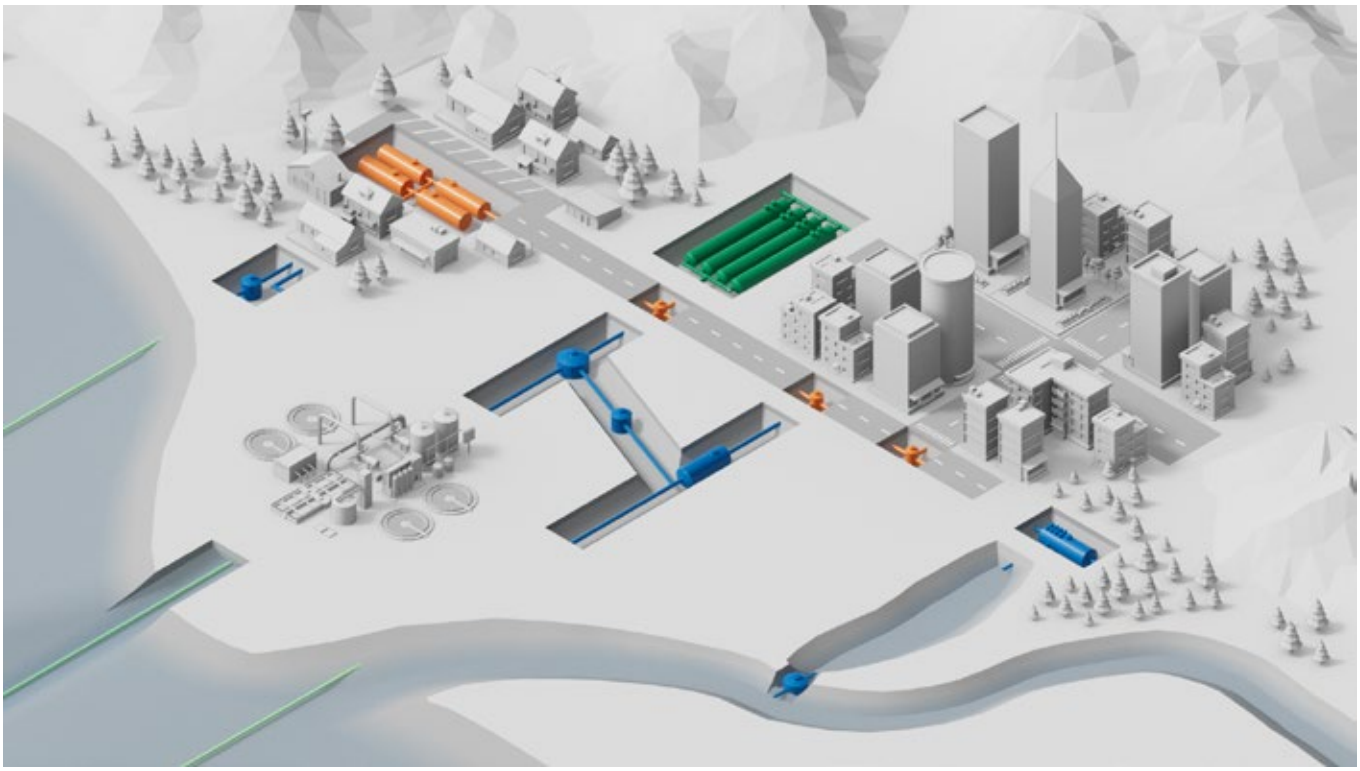
NOTICE!

Property damage due to high pressures!

Excessive pressure can pose a risk of property damage.

► Do not exceed maximum temperature/pressure specifications.

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 is 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 Stormwise oil separator is described in this installation and maintenance manual. The other Stormwise products for treatment are described in a separate installation and maintenance manual.

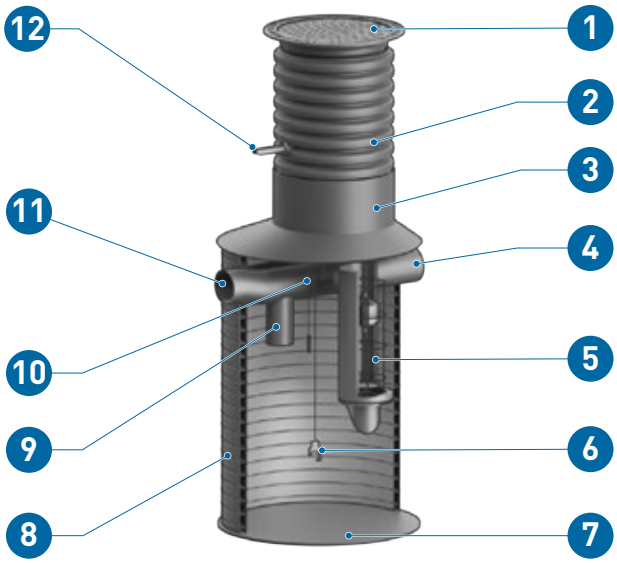
Harvesting

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 products for marine outfall are described in a separate manual.

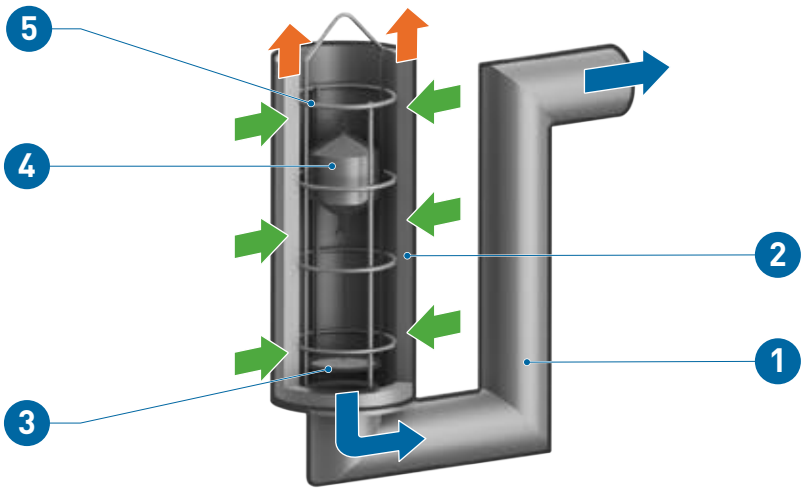
3.2 Stormwise Oil Separator



Pos.	Designation	Pos.	Designation
1	Riser pipe cover	7	Sludge storage
2	Riser pipe	8	Oil separator body
3	Riser pipe connector	9	Inlet deflector
4	Outlet connection	10	Bypass (optional)
5	Coalescing unit with auto-closure	11	Inlet connection
6	Alarm system (optional)	12	Electrical connector for alarm system

The GF Stormwise oil separator is designed to separate sedimenting mineral suspensions, oil and gasoline substances from rainwater or wastewater, which must not be discharged to the receiver, sewage system or local sewage treatment plants. An oil separator is used in the treatment of rainwater from the drainage of streets and car parks, in the treatment of technological sewage from machinery industry plants, gas stations, manual and automatic car washes, workshops, etc.

The GF Stormwise oil separator is a flow device, that uses the principle of coalescence. In an oil separator equipped with a settling tank, sedimentation of the mineral suspension of sand and mud takes place in the settling part. Gravity and the physical processes of adsorption and coalescence are used in the separation chamber.

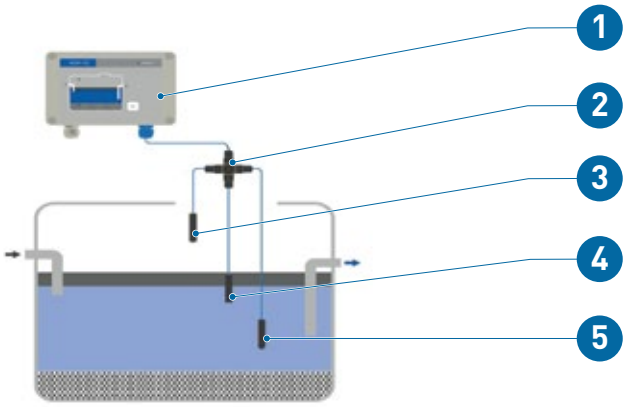


Pos.	Designation	Pos.	Designation
1	Outlet pipe	4	Auto-closure float
2	Coalescing cartridge	5	Supporting basket
3	Auto-closure valve		

Contaminated water (green arrows) enters the coalescing cartridge. Oil particles build up on the surface of the cellular structures of the coalescing cartridge by adsorption. The oil particles combine into growing agglomerates (coalescence) and migrate to the surface (orange arrows) because of a lower density, creating an oil film. Clean water (blue arrows) leaves the oil separator through the outlet pipe.

The polyurethane foam used in the coalescing cartridge is resistant to oil and water. The calibrated size of the cells and their open structure support the coalescence process. The roll-shaped coalescing insert is mounted on a supporting basket and additionally reinforced with bands that protect the insert from slipping.

The oil separator is equipped with an auto-closure device that moves down when the oil film at the surface grows in thickness. The valve, located on the guide profiles, is closed by a float, weighted to the density of ς = 0.85 kg/dm^3, which loses part of its buoyancy when immersed in a medium with a density lower than its tare threshold. As a result, when the oil layer at the surface reaches the limit thickness, the auto-closure valve completely cuts off the nominal flow through the oil separator, protecting the receiver against contamination.



Pos.	Designation	Pos.	Designation
1	Control unit	4	Oil probe
2	Junction box	5	Sludge probe
3	High level (damming) probe		

The optional alarm system usually uses three probes to monitor the accumulation of substances in the oil separator chamber:
- The sludge probe activates the alarm if the sediment layer at the bottom of the chamber reaches a critical value.
- The oil layer probe activates the alarm if the oil film reaches a critical value.
- The high-level (damming) probe activates the alarm if the overall level of liquids reaches a critical value.

The individual positions of the probes above the chamber bottom depend on the oil separator model (see technical data).

The riser system of the oil separator consists of a length-adjustable (by cutting) riser pipe with seal rings, a cover system, and an optional connection for alarm sensors. The alarm sensor connection includes a penetration seal (50/75 mm) and a cable pipe (50 mm). The cover system (outer diameter ~585 to 592 mm) must be chosen according to the requirements of local regulation (sealed cover, lockable etc.).

Local regulations or circumstances may require stormwater monitoring. In those cases, it is needed to install a specific sampling chamber containing a sampling device. The main requirements for the sampling chamber are good accessibility to the sampling device down at the bottom of the chamber, as well as sufficient space for the sampling device below the inlet/outlet level. The minimum inner diameter of the chamber body is 315 mm and the space below the inlet/outlet level is approximately 300 mm. The inlet and outlet connections must match the separator connections.

Characteristics:
- Models with or without bypass are available
- Meet Class 1 requirements according to standard EN-858
- Flexible installation with separate riser pipe and cover that can be adapted to project specifications
- Can be used in high-traffic areas without the use of additional load-bearing plates
- A separate alarm system provides overview and control of operations
- Maintenance can be performed from ground level or from inside the chamber

Customizable components:
- Size
- Riser pipe length
- Riser pipe cover

Optional components:
- Alarm system
- Bypass

3.2.1 Stormwise Oil Separator without bypass

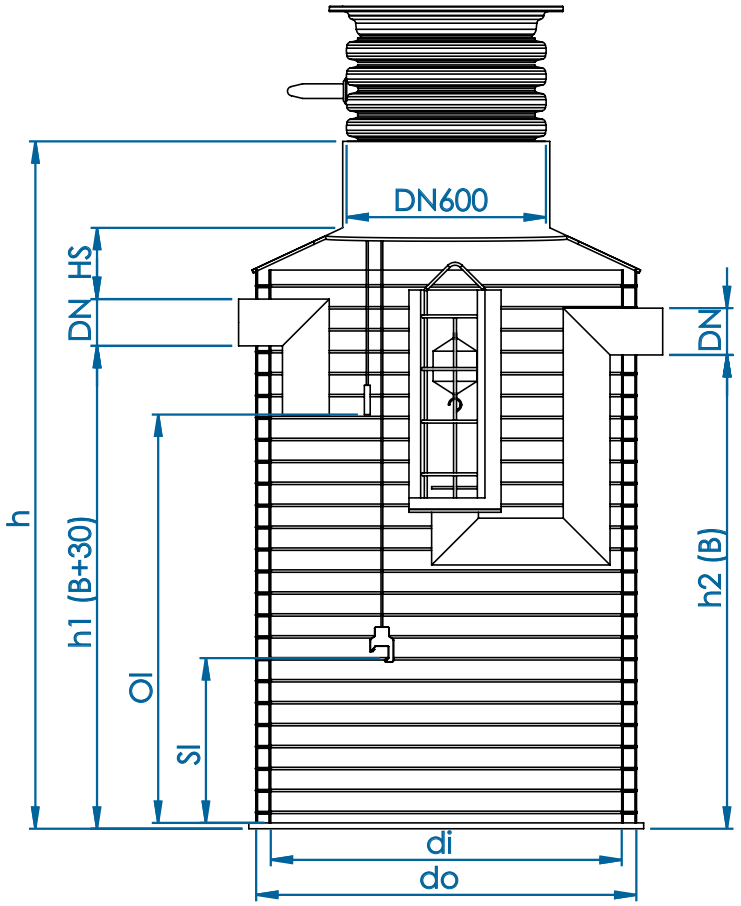
The oil separator without bypass is mainly used to clean wastewater from industry, gas stations, car washes, workshops, etc. The lack of a bypass ensures that only clean water will be sent to the receiver. But the oil separator without bypass can also be used to clean rainwater runoff from streets and parking lots.

3.2.2 Stormwise Oil Separator with bypass

The oil separator with bypass is mainly used in rainwater applications and serves as a “first flush” separator for cleaning runoff surface water from parking lots, road areas, etc. An oil separator with bypass is not allowed to be used in wastewater applications.

3.3 Technical data

3.3.1 Stormwise Oil Separator without bypass



Technical data	
Application	Purification of stormwater or wastewater
Material (body)	PE 100
Material (internal equipment)	PE 100 or stainless steel
Inlet capacity	3, 6, 10, 20, 30, 40, 50, 60 l/s
Sand trap capacity	300 - 6100 l
Color	Black (outside), white (inside)
Electrical connection	With drilling and rubber seal
Inspection well	IQ-600 PP riser system
Alarm system	ASA-02 (optional, installed separately)
Standards	EN 858
Approvals	CE-mark, Declaration of performance No. CPR-20-OIL-2101-2

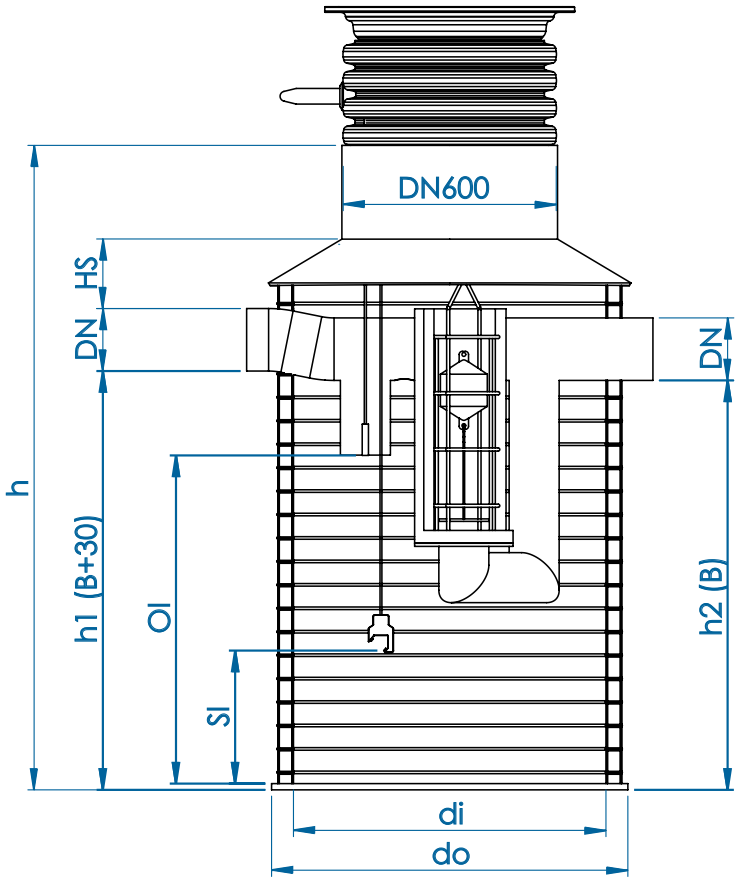
Working parameters

Model	Nominal inlet capacity [l/s]	Sand trap capacity [l]	Oil capacity [l]	Sludge probe height Sl [mm]	Oil probe height Ol [mm]	Damming probe height [mm]
NS3-300	3	300	100	299	850	1300
NS3-660	3	660	157	420	1100	1550
NS6-600	6	600	157	382	1020	1470
NS6-1200	6	1200	226	531	1320	1770
NS6-2500	6	2500	402	622	1520	1970
NS6-5100	6	5100	628	812	1990	2240
NS10-1000	10	1000	226	442	1150	1600
NS10-2000	10	2000	308	650	1580	2030
NS10-3000	10	3000	402	746	1780	2230
NS10-5100	10	5100	628	812	2040	2490
NS20-2000	20	2000	385	650	1680	2210
NS20-4000	20	4000	785	637	1700	2230
NS30-3000	30	3000	603	746	2040	2660
NS30-6000	30	6000	942	955	2490	3110
NS40-4000	40	4000	1100	637	2050	2775
NS50-5000	50	5000	942	796	2260	2945
NS60-6100	60	6100	1100	971	2720	3445

Dimensions

Model	Inner diameter di [mm]	Outer diameter do [mm]	Height h [mm]	In/out diameter DN [mm]	Inlet height h1 (B+30) [mm]	Outlet height h2 (B) [mm]	HS [mm]	Weight [kg]
NS3-300	800	900	1560	160	1040	1010	60	72
NS3-660	1000	1140	1970	160	1290	1260	220	106
NS6-600	1000	1140	1890	160	1210	1180	220	103
NS6-1200	1200	1350	2220	160	1510	1480	250	175
NS6-2500	1600	1790	2480	160	1710	1680	310	351
NS6-5100	2000	2250	3090	160	2180	2150	450	750
NS10-1000	1200	1350	2050	160	1340	1310	250	163
NS10-2000	1400	1580	2510	160	1770	1740	280	274
NS10-3000	1600	1790	2740	160	1970	1940	310	382
NS10-5100	2000	2250	3140	160	2230	2200	450	759
NS20-2000	1400	1580	2690	200	1910	1880	280	290
NS20-4000	2000	2250	2880	200	1930	1900	450	712
NS30-3000	1600	1790	3170	250	2310	2280	310	433
NS30-6000	2000	2250	3760	250	2760	2730	450	871
NS40-4000	2000	2250	3425	315	2360	2330	450	811
NS50-5000	2000	2250	3595	315	2530	2500	450	841
NS60-6100	2000	2250	4095	315	3030	3000	450	932

3.3.2 Stormwise Oil Separator with bypass



Technical data	
Application	Purification of stormwater
Material (body)	PE 100
Material (internal equipment)	PE 100 or stainless steel
Inlet capacity	3, 6, 10, 20, 30, 40, 50, 60 l/s
Sand trap capacity	660 - 6100 l
Color	Black (outside), white (inside)
Electrical connection	With drilling and rubber seal
Inspection well	IQ-600 PP riser system
Alarm system	ASA-02 (optional, installed separately)
Standards	EN 858
Approvals	CE-mark, Declaration of performance No. CPR-20-OIL-2101-2

Working parameters						
Model	Nominal inlet capacity [l/s]	Sand trap capacity [l]	Oil capacity [l]	Sludge probe height Sl [mm]	Oil probe height Ol [mm]	Damming probe height [mm]
NS3/15-660 BP 5	3	660	157	420	1150	1640
NS3/30-660 BP 10	3	660	157	420	1150	1640
NS6/30-1200 BP 5	6	1200	226	531	1370	1935
NS6/60-1200 BP 10	6	1200	226	531	1370	1935
NS10/50-2000 BP 5	10	2000	308	650	1650	2305
NS10/100-2000 BP 10	10	2000	308	650	1650	2305
NS20/100-2000 BP 5	20	2000	385	650	1680	2375
NS20/200-2000 BP 10	20	2000	385	650	1680	2510
NS30/150-3000 BP 5	30	3000	603	746	2040	2910
NS30/300-3000 BP 10	30	3000	603	746	2040	2910
NS40/200-4000 BP 5	40	4000	1100	637	2050	3060
NS40/400-4000 BP 10	40	4000	1100	637	2050	3160
NS50/250-5000 BP 5	50	5000	942	796	2260	3230
NS50/500-5000 BP 10	50	5000	942	796	2260	3330
NS60/300-6100 BP 5	60	6100	1100	971	2720	3730
NS60/600-6100 BP 10	60	6100	1100	971	2720	3830

Dimensions								
Model	Inner diameter di [mm]	Outer diameter do [mm]	Height h [mm]	In/out diameter DN [mm]	Inlet height h1 (B+30) [mm]	Outlet height h2 (B) [mm]	HS [mm]	Weight [kg]
NS3/15-660 BP 5	1000	1140	2130	200	1340	1310	290	111
NS3/30-660 BP 10	1000	1140	2130	200	1340	1310	290	111
NS6/30-1200 BP 5	1200	1350	2435	250	1560	1530	325	185
NS6/60-1200 BP 10	1200	1350	2500	315	1560	1530	325	189
NS10/50-2000 BP 5	1400	1580	2885	315	1840	1810	430	294
NS10/100-2000 BP 10	1400	1580	2885	315	1840	1810	430	294
NS20/100-2000 BP 5	1400	1580	2955	315	1910	1880	430	300
NS20/200-2000 BP 10	1400	1580	3040	400	1910	1880	430	308
NS30/150-3000 BP 5	1600	1790	3490	400	2310	2280	480	451
NS30/300-3000 BP 10	1600	1790	3490	400	2310	2280	480	451
NS40/200-4000 BP 5	2000	2250	3710	500	2360	2330	550	844
NS40/400-4000 BP 10	2000	2250	3810	600	2360	2330	550	862
NS50/250-5000 BP 5	2000	2250	3880	500	2530	2500	550	875
NS50/500-5000 BP 10	2000	2250	3980	600	2530	2500	550	893
NS60/300-6100 BP 5	2000	2250	4380	500	3030	3000	550	965
NS60/600-6100 BP 10	2000	2250	4480	600	3030	3000	550	983

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 oil separator must be handled, transported and stored with care. Note the following points:

- The oil separator and its components must not be damaged either by mechanical or thermal influences.
- The machinery and equipment used for handling the oil separator must be technically flawless and adapted to the type of cargo.

- ► Transport and store the oil separator in its original packing.
- ► Protect the oil separator from harmful physical influences.
- ► Avoid contact of the oil separator with chemicals, gasoline, or diesel fuel.
- ► Avoid handling and transporting the oil separator 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!

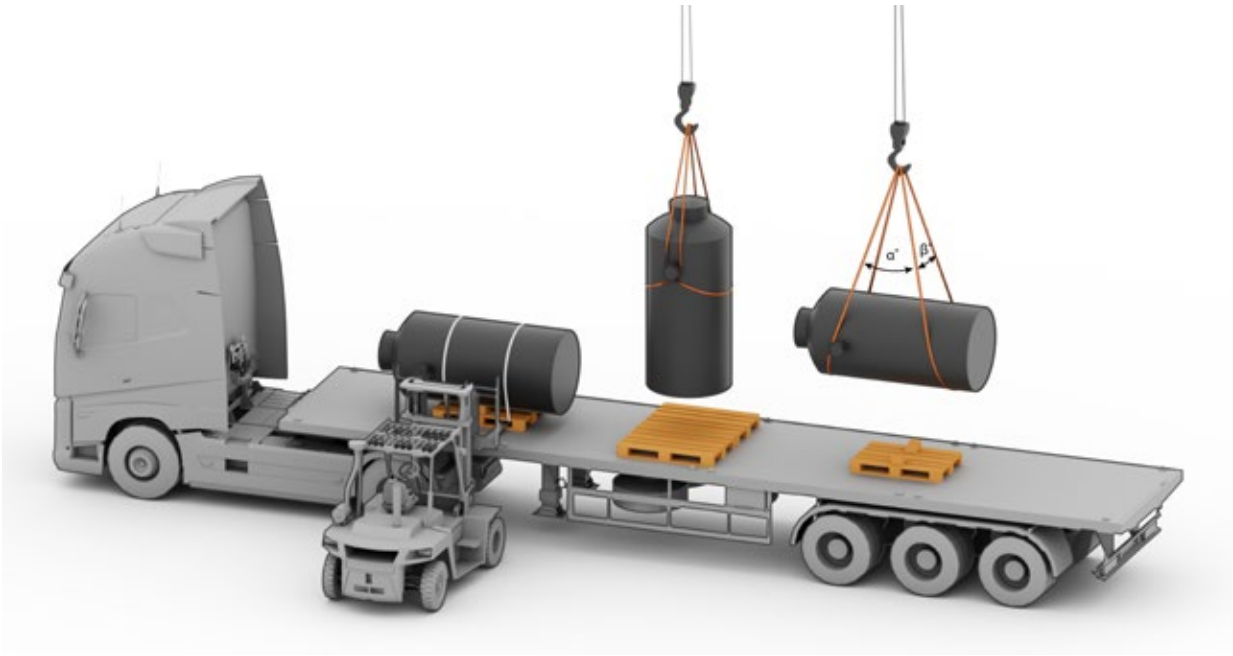
Oil separator damage while lifting!

It is important to make sure that the lift belts do not damage any protruding parts.

- ► Always lift the oil separator with a crane.

- ► Ensure availability of unloading equipment on the construction site.
- ► Before unloading, ensure that the oil separator is undamaged. Record any claims or complaints directly with the driver on the delivery documents.
- ► 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 oil separator.
- ► 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 oil separator.
- ► Do not unload by tipping.
- ► 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.

- Put the lifting belts around the oil separator so that these will be guided by the inlet and outlet connection (see image below).



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.
- Transport the oil separator vertically or horizontally, depending on the size.
- Do not slide the oil separator.
- Place the oil separator on the platform so that any protruding elements are protected from damage.
- Support the oil separator with wooden wedges or palettes to prevent any movement.
- Use wide cargo straps to secure the load.
- Do not use cables, wires or chains to secure the load.
- Avoid contact of belt buckles and the oil separator, e.g. by using rubber pads.
- Cover all openings to prevent dirt from entering the oil separator.

Example of appropriate oil separator transport:



4.4 Storing

- Choose a clean and even storage site.
- Store the oil separator its original packing.
- Store the oil separator vertically or horizontally.
- Do not stack the oil separator.
- Store the oil separator on wooden racks or pallets.
- Avoid contact of the oil separator with the ground.
- Ensure that there are no sharp objects like nails or stones on the racks or pallets.
- Carefully inspect the oil separator at the time of delivery and notify and report any defects immediately.

Examples of appropriate oil separator storage:





5 Installation

5.1 Safety instructions

⚠ DANGER!

Injury due to manipulations on pressurized pipes!

Improper manipulations on a pressurized pipe can lead to the medium escaping under pressure, resulting in injuries.

- ► Always consult the installation and maintenance manual before making any manipulations to pipes.
- ► Under all circumstances, make modifications to pressurized pipes only according to the instructions in this installation and maintenance manual.

⚠ DANGER!

Injury due to damaged cabling!

Touching damaged cables may lead to electrical shocks or death.

- ► Operate the oil separator only if the cables are undamaged and it has been installed correctly.

⚠ 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 due to manipulations on pressurized pipes!

Improper manipulations on a pressurized pipe can lead to the medium escaping under pressure, resulting in property damage.

- ► Always consult the installation and maintenance manual before making any manipulations to pipes.
- ► Under all circumstances, make modifications to pressurized pipes only according to the instructions in this installation and maintenance manual.

NOTICE!

Property damage due to leaking water connections!

Escaping water can lead to flooding of the room and property damage to the building and fittings.

- ► Check that there are no leaks.

NOTICE!

Property damage due to incorrect service voltage!

If connected to an incorrect service voltage, the alarm system can be damaged.

- ► Only connect to voltage sources as specified on the product label.

NOTICE!

Buoyancy due to ground water!

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

- ► Use the GF anchoring kit or geotextile fabric to counteract the lifting force.

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.

5.2 Before installation

The customer is responsible for handling the oil separator and other equipment and installing at the site.

The oil separator must be installed with care. Note the following points:

- ► Strictly follow the requirements from the static calculation. A detailed static calculation can be provided on request.
- ► Ensure that any work on-site, including excavation and backfilling, is done in compliance with the respective local regulations. The relevant installation details are defined in DIN EN 1610 and the associated standards and guidelines referenced therein.
- ► Check the oil separator for general damage or flaws prior to installation.
- ► Avoid installation of the oil separator at air temperatures below -20° C.
- ► Handle Weholite products as described in currently applicable standards and regulations.

5.2.1 Prerequisites

The location for the oil separator must fulfill the following requirements:

- facilitate easy access for maintenance work and the removal of the separated impurities.
- distance of at least 8 meters to any source of hazardous materials like gasoline or solvents.
- Ensure that the oil separator is protected from overfilling, fire, heating to oil ignition temperature, mechanical damage, and frost.

The oil separator can be installed free-standing or underground. In case of a free-standing installation, observe the following guidelines:

- ► Install the oil separator in a frost-free room.
- ► Place the oil separator on an even, stable, and leveled surface.
- ► Install the oil separator so that the ventilation of the separator leads outside the room.
- ► Attach the sewage inlet and outlet pipes to the oil separator in accordance with the arrows on the inlet and outlet connections in a way that does not cause stress and deformation to the stub pipes.

- The GF Stormwise oil separator is engineered according to the project-specific customer requirements and is intended for earth-buried applications. The oil separator is designed to meet static requirements, considering parameters such as installation depth, coverage, traffic loads, groundwater level, hydraulic loads, and more.
- ► Conduct all work on-site, including excavation and backfilling, in compliance with the respective local regulations. The relevant installation details are defined in DIN EN 1610 and the associated standards and guidelines referenced therein.
- ► Arrange a suitable installation location for the oil separator in cooperation with local authorities.
- ► Arrange and prepare a suitable storage site so that the oil separator can be placed on an even surface over its whole length.
- ► Ensure easy access for transport equipment to the storage and installation site.
- ► Arrange suitable and adequate lifting gear on site.
- ► Arrange relevant electrical and other connective work (welding etc.).
- ► Arrange excavation and fill on site with suitable materials and by suitable methods.
- ► When receiving the oil separator, 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 selected pipe joining method
- Compacting equipment according to local standards and regulations

5.3 Installation procedure

5.3.1 Digging the Oil Separator pit

- ► Ensure that the excavation is wide enough to allow sufficient working space around the oil separator. The diameter must be at least 1.2 meters larger than the diameter of the oil separator. This is because there must be enough space around the oil separator to compact the backfill material.
- ► In case of anchoring, take also into account the dimensions of the anchoring equipment.
- ► If the soil consists of poorly draining material, such as clay, it is recommended to install drainage in the excavation.
- ► 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 oil separator.
- ► Ensure that the bottom of the pit is completely solid and even, as gaps may form in soft areas and unevenness under the oil separator when the pit is filled.
- ► In road areas or areas immediately adjacent to road areas, ensure that the pit is designed and constructed to avoid undermining and settlement.
- ► Dig the pit to the correct depth taking traffic load conditions into consideration. Minimum top fill is 30 cm in green areas. See section 5.3.12 for the minimum top fill in traffic areas.

5.3.2 Preparing the bottom layer

- ► Ensure that the excavation base provides at least the same load-bearing capacity as the undisturbed native soil.
- ► If the base has been loosened during excavation, ensure that its original bearing capacity is restored using appropriate compaction equipment.
- ► Keep the pit bottom free of water during compaction.
- The oil separator is placed on a bottom layer that eliminates unevenness and ensures that the trreatment unit receives uniform and even support. The thickness of the bottom layer depends on the type of oil separator and the connection pipes. The connection pipes must be able to be dug into the bottom layer so that the oil separator receives linear support.

1. Prepare the bottom of the pit according to EN 1610. In addition to the minimum thickness, the standard also defines requirements for the bedding materials to be used.
2. Make sure that the floor is level.

5.3.3 Ground water

- ► If the ground on site is poorly permeable by water (for example clay), take installing draining into the pit into consideration.
- ► Ensure that the eventual height difference between ground level and maintenance lids is at least 200 mm. The oil separator height is the distance between the outlet flow line and the ground level.
- ► If the oil separator is placed in an area where high ground water level is present, prepare bottom of excavation according to possible anchoring arrangements.

5.3.4 Lifting and positioning the Oil Separator

⚠ 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!

Property damage because of objects in the pit!

Stones, bricks, debris, and other objects can damage the bottom and walls of the oil separator.

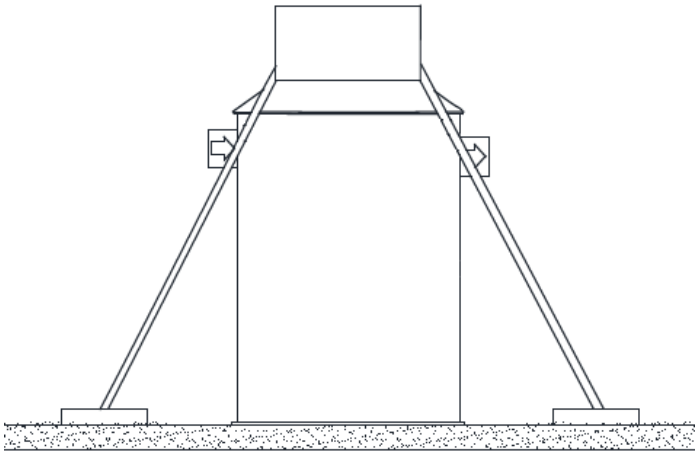
- ► Ensure that the bottom and walls of the pit are free of stones, bricks, debris, and other objects.

- ► Carry out lifting by using lifting belts attached around oil separator, guided by the inlet and outlet connection, following the instructions for loading and unloading (see page 23).
- ► Prevent the stressing of (welded) connections and other structural parts.

1. Place the oil separator on the bottom layer.
2. Level the oil separator. The basis for the proper functioning of the oil separator is its proper leveling.
3. Make sure that the connections are at the correct height and at the correct direction. Arrows and/or inscriptions on the oil separator indicate the direction of the water flow.
4. Remove any temporary supports used during transport after the oil separator is in its required position and adequately supported.

5.3.5 Anti-buoyancy in ground water conditions

The oil separator can be anchored to counteract buoyancy caused by groundwater. A specially designed and dimensioned anchoring kit is available as an optional accessory for this purpose.



The anchoring straps are wrapped around the riser pipe connector. The number of anchoring plates must be chosen according to the size of the oil separator and expected buoyancy. Bigger oil separators may require a concrete foundation.

- ► Follow the instructions of the anchoring kit.

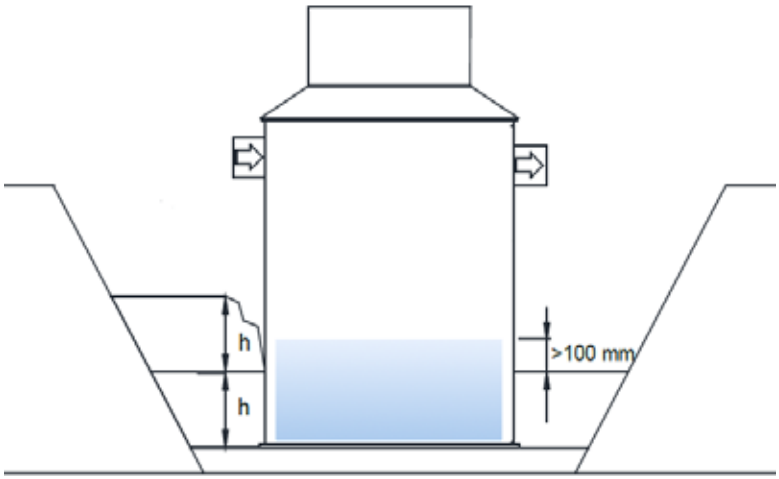
5.3.6 Backfilling the pit

NOTICE!

Risk of material damage!

The use of heavy compaction equipment directly above the oil separator may damage the oil separator.

- ► Do not use mechanical compaction with vibrators directly above the oil separator or pipes.
- ► Follow standard EN 1610 in all backfilling steps.



1. Make sure that the openings of the oil separator are covered to avoid any dirt inside the oil separator.
2. Fill the oil separator with water to the level of approx. 1/3 of its volume.
3. Backfill the pit around the oil separator up to the water level inside, compacting it in even layers of 30 cm (h).

If there is a risk of mixing the backfill material with the native soil, use a separating material, e.g. geotextile fabric, foil, etc. In winter, make sure that the backfill material does not contain lumps of snow and ice.

4. Continue backfilling up to the inlet and outlet connectors in even layers of 30 cm. Make sure, by filling additional water into the oil separator, that the water level is always at least 10 cm higher than the level of backfilling material.

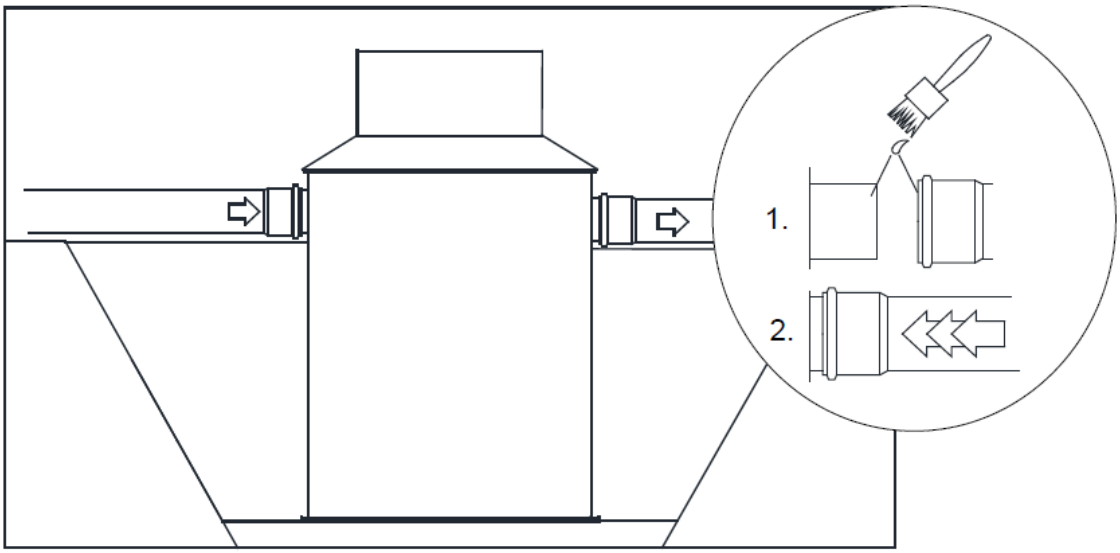
5.3.7 Connecting the inlet and outlet pipes

⚠ CAUTION!

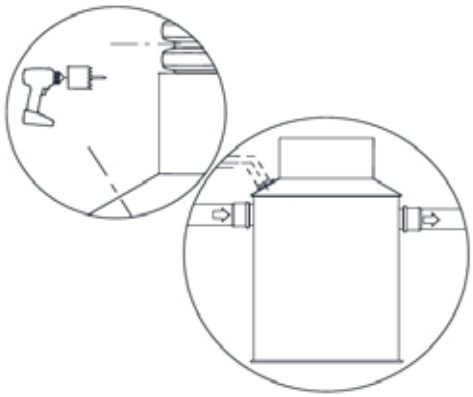
Risk of leakage or structural damage!

Incorrect connection or misalignment of the oil separator may lead to leaks, mechanical stress, or system failure. Improper installation may compromise system integrity and void warranty coverage.

- ► Ensure proper alignment of the inlet and outlet connections before the final installation.
- ► Make connections according to the installation guidelines and use approved materials and fittings.
- ► Avoid applying excessive force or torque to the oil separator body, pipe joints, or seals.
- ► Always follow local regulations during installation.
- ► Only qualified personnel carry out the work.



1. Align the inlet and outlet pipe axially to the inlet and outlet connector of the oil separator.
2. Lubricate the gasket of the pipe socket.
3. Lubricate the outer surface of the spigot.
4. Slowly push the socket onto the spigot to the depth specified by the pipe manufacturer.
5. Move the pipe in different directions to make the gasket align.
6. If it is necessary to connect the oil separator to a sewage system made of other types than smooth pipes, use adapters.
7. In case of a shallow embedment of pipes, ensure proper insulation against freezing.

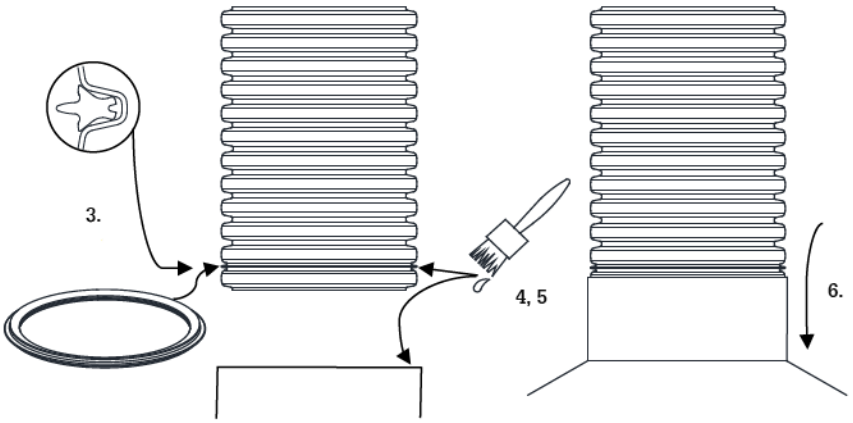


In some cases, it is required to ventilate the oil separator due to hydrocarbon gases:

1. Drill a hole into the riser pipe connector.
2. Install a properly sized ventilation pipe. The most common ventilation lines used are DN110 and DN160.
3. Seal the connection with a penetration sealant.

The ground frost insulation and/or thermal insulation of pipes can be carried out if needed according to the respective plan and in compliance with currently applicable standards and regulations. The final landscaping is to be completed by the customer. The customer may consider preparing for exceptional circumstances, such as a power outage, with a spare power source and/or –connection. Components and equipment must be monitored and inspected according to the suppliers' standards and recommendations.

5.3.8 Installing the riser



1. Remove the UV shield from the riser pipe connector.
2. Cut and remove the straps on the auto-closure float that are attached to the supporting basket. They are only for transportation purposes.

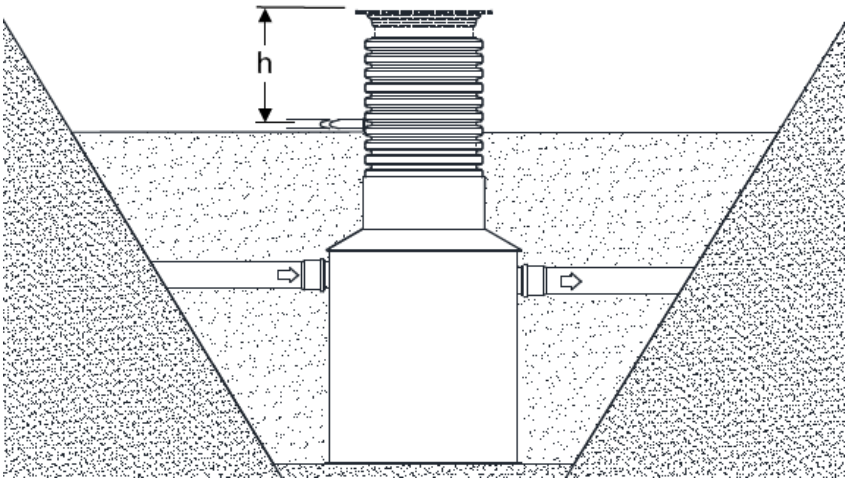
NOTICE!

Avoid restricting movement of the auto-closure float, which may impair valve shut-off!

If the transportation straps are not cut and removed, the auto closure valve may remain open, allowing oil contaminated water to pass through the separator and cause contamination of the downstream system or receiver.

3. Install the rubber seal into the lowest groove of the riser pipe. Make sure the single lip faces outwards.
4. Lubricate the rubber seal.
5. Lubricate the inner surface of the riser pipe connector.
6. Push the riser into the riser pipe connector.

5.3.9 Installing the electrical connector



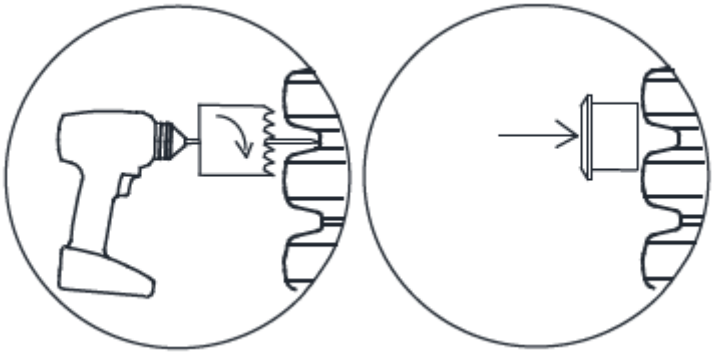
1. Continue backfilling up to the intended level of the electrical connector (the level below ground (h) is determined by local regulations).

NOTICE!

Property damage due to compacting directly above the pipelines or the oil separator!

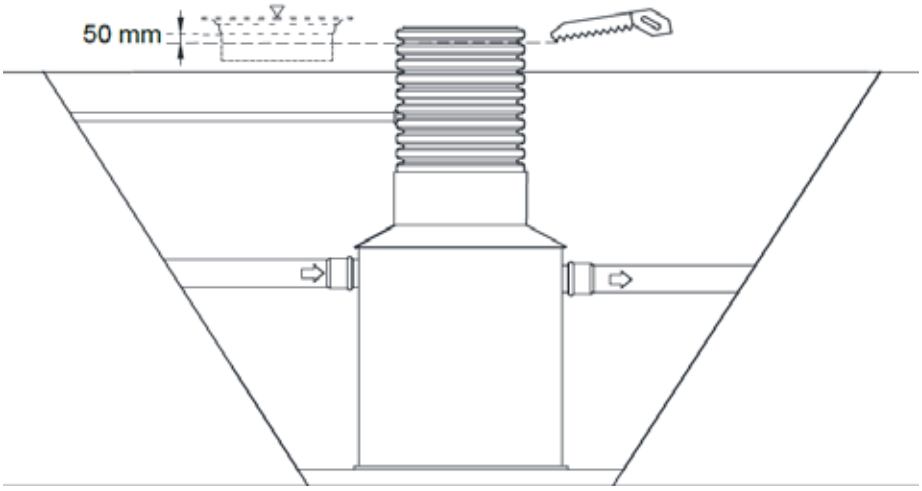
Compacting directly above the pipelines or the oil separator may damage the pipelines or the components of the oil separator.

► Do not compact directly above the pipeline or the oil separator.
► Keep a distance of 200 mm minimum.



2. Drill a hole into the riser pipe with a hole diameter of 75 mm.
3. Push the 50/75 mm rubber seal into the hole.
4. Lubricate the seal.
5. Install the cable pipe through the seal.
6. Push the cable pipe inside approximately 50 mm to ease the bracketing of the sensor cables and ensure a gas-tight connection.

5.3.10 Installing the riser pipe cover



1. Continue backfilling close to the level of the riser pipe cover.
2. Cut the riser pipe so that there is a 50 mm distance between the top of the riser pipe and the edge of the riser pipe cover in its final position.
3. In case of a single wall riser pipe, mount the telescopic seal ring into the 1st groove of the riser.
4. Place the riser pipe cover on the riser pipe.
5. Later, when the surface work is done, pull the riser pipe cover out of the riser pipe for about 50 mm.

5.3.11 Installing the alarm system

► For installing the alarm system, follow the system manufacturer's instructions.
► Strictly observe the installation heights for the damming, oil and sludge probes of the alarm system (see technical data).

When setting up the alarm system, the oil separator must be filled with water up to the outlet level. If the sensors are not immersed in water (except the damming sensor), the system will indicate an error.

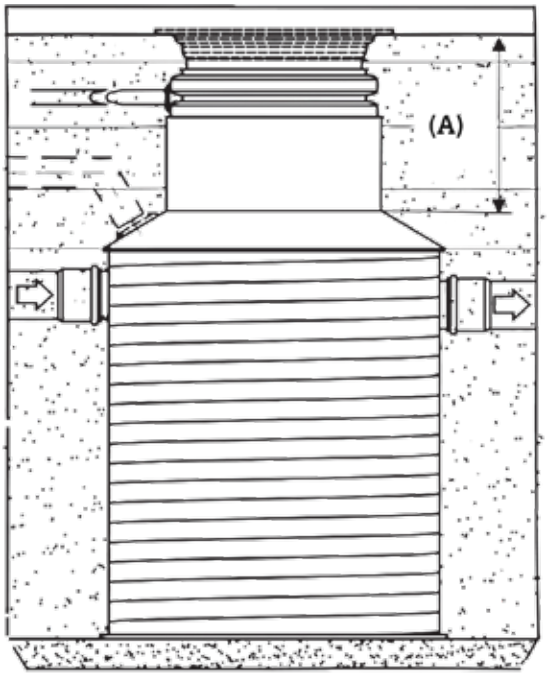
5.3.12 Installation under a traffic area

The oil separator can be installed in areas up to load class D400 (according to EN 124). The gravel layer above the oil separator distributes the loads caused by pedestrian and vehicle traffic. The minimum thickness of backfill layers above the oil separator (dimension (A)) is displayed in the following table:

Load class	Test load	Traffic group description	Oil separator OD 900-1350 (A)	Oil separator OD 1580-1790 (A)	Oil separator OD 2250 (A)
D	400 kN	Areas where cars and lorries have access, including carriageways, hard shoulders, and pedestrian areas.	500 mm	700 mm	700 mm
C	250 kN	Car parks, forecourts, industrial sites and areas with slow moving traffic.	350 mm	450 mm	450 mm
B	125 kN	Car parks and pedestrian areas where only occasional vehicular access is likely.	150 mm	200 mm	200 mm
A	15 kN	Only pedestrians have access.	0 mm	0 mm	0 mm

Shallower installations can be carried out by using a concrete load-bearing construction.

► Follow local standards and regulations for the minimum cover depth.



NOTE!

The minimum soil cover (A) required to meet the specified traffic load is not equivalent to the unit's minimum installation depth. When installed with the minimum cover (A) according to load requirements, the cover and/or parts of the oil separator's superstructure may end up above ground level. This must be taken into account during project planning.

If the site situation does not allow the minimum installation depth, and dimension (A) will be less than in the table, there is the possibility to prepare a steel reinforced concrete slab above the treatment unit. Landscaping designers must take all aspects of the site into account and define the structure and dimensions of load distribution slab.

6 Operation

6.1 Safety instructions

⚠ 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.

⚠ WARNING!

Danger of suffocation!

Lack of oxygen inside the oil separator can pose a risk of personal injury.

► Ensure sufficient air ventilation when working inside the oil separator.
► Install or wear oxygen monitoring sensors.
► Do not work alone inside the oil separator.

⚠ WARNING!

Injury due to personal protective equipment not being worn!

Unprotected body parts may be injured.

► Wear the mandatory personal protective equipment.

⚠ WARNING!

Risk of injury due to uncontrollable exit of the medium!

If leaking, the medium may exit uncontrollably under high pressure.

► Assume a protected working position.
► Wear protective clothing, if required.
► In case of leaks: close the inlet shut-off valve.

⚠ CAUTION!

Danger of falling over!

The inside of the oil separator can still be slippery because of residual water, even if the oil separator was drained or due to a biofilm or grease from equipment after maintenance.

► Wear safety shoes with non-slip soles.
► Do not step into residual puddles.

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.

6.2 Preparing for operation

Conduct the following steps to put the oil separator into operation:

1. Clean the oil separator and its parts of soil, sand, mortar, or other contaminants.
2. Fill the system with water up to the bottom of the discharge pipe.
3. Install the coalescing unit with the basket and the auto-closure.
4. Remove the black clamps from the basket and the auto-closure.
5. Check that the auto-closure does not cut off the drain from the oil separator.
6. Ensure that the auto-closure protrudes approx. 20 mm above the water surface.
7. Record the above condition in the service and operation card and in the device acceptance protocol.

6.3 Operation

Domestic wastewater, washing liquids and mineral oils in the form of a permanent emulsion must not be introduced into the oil separator. Wastewater introduced into the separation system may contain mineral oils whose specific gravity is lower than the specific gravity of water.

When using the oil separator in a car wash, the following rules must be strictly followed:

- ► Use a maximum water temperature of up to 40 °C.
- ► Use high-pressure cleaners to only flush cleaning agents without mixing detergents with water.
- ► Use washing aggregates and pressure washers that use a maximum water pressure of 20-30 bar.
- ► Only use environmentally friendly cleaning, care and maintenance agents in the washing cycle.

6.3.1 Starting the device

Perform the following steps for the first start-up and after each emptying of the oil separator:

1. Check the completeness of the equipment and the correct assembly of the separator units.
2. Clean the device from solid contaminants such as debris, stones, sludge, leaves, etc.
3. Clean the coalescing insert outside the oil separator.
4. Clean the seat of the auto-closure with running water under pressure.
5. Fill the separator with clean water up to the overflow at the outlet.
6. Clean the auto-closure.
7. Put the auto-closure back into the seat.
8. Close the hatches and secure the hatches against opening.

7 Maintenance

A highly efficient operation of the oil separator is only possible when regular maintenance is performed. This means the need for periodic inspection and cleaning of the oil separator. This frequency will depend mainly on the specifics of the separator load. Supplementary recommendations and regulations may result from the building permit and operating permit.

7.1 Safety instructions

⚠ 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.

⚠ WARNING!

Danger of explosion!

Smoking or using open flames inside the oil separator may lead to the explosion of inflammable substances.

► Do not smoke or use open flames inside the oil separator.

⚠ CAUTION!

Risk of injury due to leaking gaskets!

Danger of injury by leaking medium due to damaged or aged gaskets.

► If possible, store gaskets in a cool, dry and dark place.

► Before installing them, the gaskets must be checked on possible aging damages, such as fissures and hardenings.

► Regularly check the gaskets and replace them, where necessary.

NOTICE!

Property damage due to wrong cleaning agents!

The use of aggressive cleaning chemicals can cause damage to components.

► Do not use aggressive chemicals or cleaning agents when cleaning.

► If the oil separator comes into contact with harsh chemicals, clean it thoroughly with a neutral detergent.

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.

To ensure the safety of personnel entering and maintaining the oil separator, the following rules must be strictly followed:

- Failure to comply with safety requirements voids any liability or damage claims.

► Employers ensure that all maintenance personnel are properly trained in the risks of electric shock and hazardous gases and are equipped with the necessary personal protective equipment (PPE).

► Do not enter the oil separator alone. Always ensure that there is a second person present outside to provide assistance in case of emergency.

► Thoroughly ventilate the oil separator before entry to eliminate harmful gases and ensure a safe working atmosphere.

► Immediately report any damage of the structure of the oil separator to the manufacturer.

Compliance with standards and regulations

The oil separator is designed to be entered for inspection and servicing. Therefore, all safety features, including ladders and handrails, must comply with the currently applicable standards and regulations. These requirements must be strictly observed during both installation and maintenance.

7.2 General maintenance guidelines

- ▶ Follow the safety regulations applicable to wastewater and pressurized systems during all maintenance activities.
- ▶ Document all maintenance activities in a service log.
- ▶ Maintain all installed equipment (e.g. gate valves, air valves, flow meters) according to the manufacturer's instructions.
- ▶ Ensure that waste management for any removed materials is handled by licensed companies and according to environmental regulations.
- ▶ Prepare for emergency scenarios (e.g. power outages) with backup power supply if applicable.
- ▶ During winter, ensure that lids and surrounding areas are kept free of ice and snow. Apply frost protection or insulation as required by local regulations and site conditions.

7.3 Preparing for maintenance

1. Secure and mark the working area from all sides according to the local guidelines.
2. Open the manhole.
3. Secure the manhole against falling inside.
4. Ensure the interior of the oil separator is sufficiently illuminated.

7.4 Maintenance schedule

It is recommended to carry out maintenance activities according to the maintenance schedule below.

Maintenance schedule

Frequency	Maintenance Task	Observation	Service activity	Detailed instruction
Bi-weekly	▶ Check the position of the auto-closure float.	The float is completely immersed in the water.	▶ Control the oil level in the oil separator. ▶ Check the float cleanness.	See section 7.4.1
	▶ Check the coalescing filter cartridge cleanness.	The difference in the free surface of water in front of and behind the filter is 5 cm.	▶ Clean the filter.	See section 7.4.4
Monthly	▶ Check the level of sludge in the sludge storage and the floating parts.	The thickness of the sediment layer at the bottom exceeds 50% of the admissible value (see technical data).	▶ Have the sediment removed by a licenced company.	See section 7.4.2
	▶ Check the oil level.	The thickness of the oil layer exceeds 80% of the admissible value (see technical data).	▶ Have the oil removed by a licenced company.	See section 7.4.3
Quarterly	▶ Check the coalescing unit.	The filter is soiled. The filter is damaged.	▶ Clean the filter. ▶ Replace the filter.	See section 7.4.4
Every six months	▶ Check all device component components for wear or damage.	A component is worn or damaged.	▶ Repair the component or replace it with a new component.	See section 7.4.5
Every five years			▶ Clean the system thoroughly.	See section 7.4.6

7.4.1 Position of the auto-closure float

All cleaning and checking of the auto-closure float must be conducted outside the oil separator.

1. Check the position of the auto-closure float.

The auto-closure float must protrude approx. 20 mm above the water surface. Complete immersion of the auto-closure float may indicate excessive contamination of the auto-closure float, resulting leakage or accumulation of petroleum substances on the surface. A position of the auto-closure float too high above the water surface indicates poor balancing, resulting in leakage.

If the float is not at the correct height above the water level:

1. Remove the float from the guides.
2. Wash the entire element with a stream of water.
3. Replace the float if damaged.
4. Install the float in the guides (only with the oil separator filled with water).

7.4.2 Sludge level check

An excessive amount of suspended solids accumulating in the sludge storage of the oil separator proves that the settling tank upstream of the separator works poorly.

1. Remove large solid impurities (leaves, sacks, polystyrene, etc.)
2. Measure the amount of sediment:
    1. Record the top level of the sludge.
    2. Record the bottom level of the sludge.

The difference in levels determines the height of the sludge in the oil separator.

3. If the sludge level exceeds 50% of the permissible thickness (see technical data), have the sediment removed by a licensed company.

7.4.3 Oil quantity check

The oil separated in the separation and coalescence process in the form of an oil film accumulates on the surface. Measure the amount of oil when the device is idle (no sewage flow).

1. Measure the thickness of the oil layer.
2. If the oil layer thickness is greater than 80% of the permissible thickness specified in the technical data sheet, have the oil removed by a licensed company.
3. If there is a highly contaminated water-oil mixture in the entire volume of the separator, clean the entire system.

7.4.4 Coalescing unit check and filter cleaning

1. Check the water level inside and outside the cartridge during the inflow of sewage to the separation system. A difference in levels greater than 5 cm during the operation of the separator indicates the need to clean the coalescing unit.
2. Remove the coalescing unit with the carrying basket.
3. Clean the coalescing unit from contamination under running water.
4. Check the condition of the coalescing unit in terms of mechanical damage and contamination.
5. In case of damage or heavy contamination, replace the coalescing unit.
6. Insert the coalescing unit into the separator and place it carefully on the guide.

7.4.5 Technical condition check

1. Check the device components for mechanical damage, quality of the coatings and fastenings, and any signs of wear.
2. Repair any damage or wear.
3. If repair is not possible, replace the component.

7.4.6 General cleaning

To ensure the proper functioning of the oil separator and long-term durability of the components, periodic cleaning of the device is necessary. Removal of impurities from the oil separator, transport and disposal of the separation products must be carried out by authorized companies with an appropriate license for this type of service.

It is recommended to use an inspection camera with light to make sure there is no damage to the equipment or any leakage in or out from the oil separator. The inspection can be done when the oil separator is full or empty. When the oil separator is filled with water, observe the potential leakage out from the oil separator: water level is decreasing. When the oil separator is empty, observe the potential leakage into the oil separator: water level is increasing.

Separation products are removed using a suction pump and a slurry tanker.

1. Remove the coalescing unit.
2. Clean the coalescing unit.
3. Pump out the surface oil film.
4. Pump out the water layer.
5. Clean the tank under pressure.
6. Pump out the resulting leachate.
7. Install the coalescing unit.
8. Fill the oil separator with water up to the outlet overflow.

7.5 End of maintenance work

After maintenance work or during a predicted break at work, the entire work area must be cleared up in such a way that there is no danger to human health and life.

7.6 Disposal of separated substances

- Both transport and disposal of separation products must be carried out by authorized companies having the appropriate licence to perform such services. The user is required to keep waste management documents.
- All removed contaminants must be taken to landfills or to catchment points after prior consultation and location by the appropriate territorial sanitary authorities and institutions related to environmental protection.
- Waste accumulated in the oil separator in the form of oily sands and oils are classified as hazardous waste.

7.7 Service log

Date	Operator	Action

8 Troubleshooting

8.1 Safety instructions

⚠ CAUTION!

Risk of electric shock!

Internal components may carry hazardous voltages that can cause serious injury or death if touched.

- ► Before working on wiring or terminals, always ensure the power supply is completely disconnected (zero potential).
- ► Installation, handling, and servicing must be performed only by qualified personnel trained in electrical safety and authorized to work on industrial instrumentation.

8.2 Detecting a fault

- The oil oil separator does not work properly.
- If the oil separator contains a control panel with a display, an error code or fault message is displayed.

8.3 Correcting a fault

- ► Always work systematically and purposefully, even when under time pressure. Random, thoughtless disassembly and changing of settings might result in an inability to determine the original cause of the error.
- ► Get a general idea of the function of the oil separator in conjunction with the overall system.
- ► Try to find out whether the oil separator 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 oil separator?
- Were any changes (e.g. refitting) or repairs carried out on the overall system or on the oil separator?
- Was the oil separator used as intended?
- Have the environmental conditions changed?
- How did the fault become apparent?

Fault	Recommended action
There is no water in the pipes going into the oil separator.	► Check that all relevant shut-off valves are open. ► Check that all settings are correct. ► Check that all relevant filters are clean.
There is an issue with a component attached to the oil separator.	► Consult the component manual.

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

9 Disposal

NOTICE!

Proper disposal!

- ► Before disposal, separate the individual materials into recyclable materials, normal waste and hazardous waste.
- ► For questions concerning the disposal of the oil separator, contact your national representative of GF Industry and Infrastructure Flow Solutions.
- ► Observe local regulations, standards and guidelines.
- ► Consult the safety data sheet of the oil separator.
- ► Oil separators with electrical components must be disposed of separately.
- ► A component marked with this symbol must be taken to separate collection of electrical and electronic equipment:



The full plastic oil separator 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 list of such companies can be viewed from local plastic manufacturers associations web pages.

10 Spare parts and accessories

10.1 Spare parts

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

10.2 Accessories

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

11 Appendix

11.1 EU Manufacturer‘s declaration

+GF+

DECLARATION OF PERFORMANCE
Nro. CPR-20-OIL-1201-2

1 Unique identification code of the product-type:

GF·Oil Separator·Class1·NS1-4500·EN858

2 Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

The oil separator is identified by a unique batch number, which is printed on the product label.

3 Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:

The device is intended for the separation of first class light liquids. Intended for the purification of rainwater, among others from urban catchment systems, industrial plants rainwater networks, in road drainage systems, parking lots and manoeuvring areas.

4 Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant Article 11(5):

Uponor Infra SP. ZO. O, PL-01-217 Warszawa, Poland

5 Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):

Uponor Infra Oy, FIN-15561 Nastola, Finland
Uponor Infra AB, SE-51381 Fristad, Sweden
Uponor Infra A/S, DK-4450 Jyderup, Denmark
Uponor Infra AS, N-0195 Oslo, Norway
Uponor Infra AS, 13811 Tallinn, Estonia
Uponor Latvia SIA, LV-1045 Riga, Latvia
Uponor Infra SP. ZO. O, PL-01-217 Warszawa, Poland

6 System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

System 4

7 In case of the declaration of performance concerning a construction product covered by a harmonised standard:

EN 858-1
Instytutu Techniki Budowlanej, BN 1488
ul. Filtrowa 1
00-611 Warszawa
Performed: reaction to fire testing of product under system
3 and issued: Classification report no. LZP01-01776/23/Z00NZP

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Visit our webpage to get in touch with your local specialist:
www.georgfischer.com/locations

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