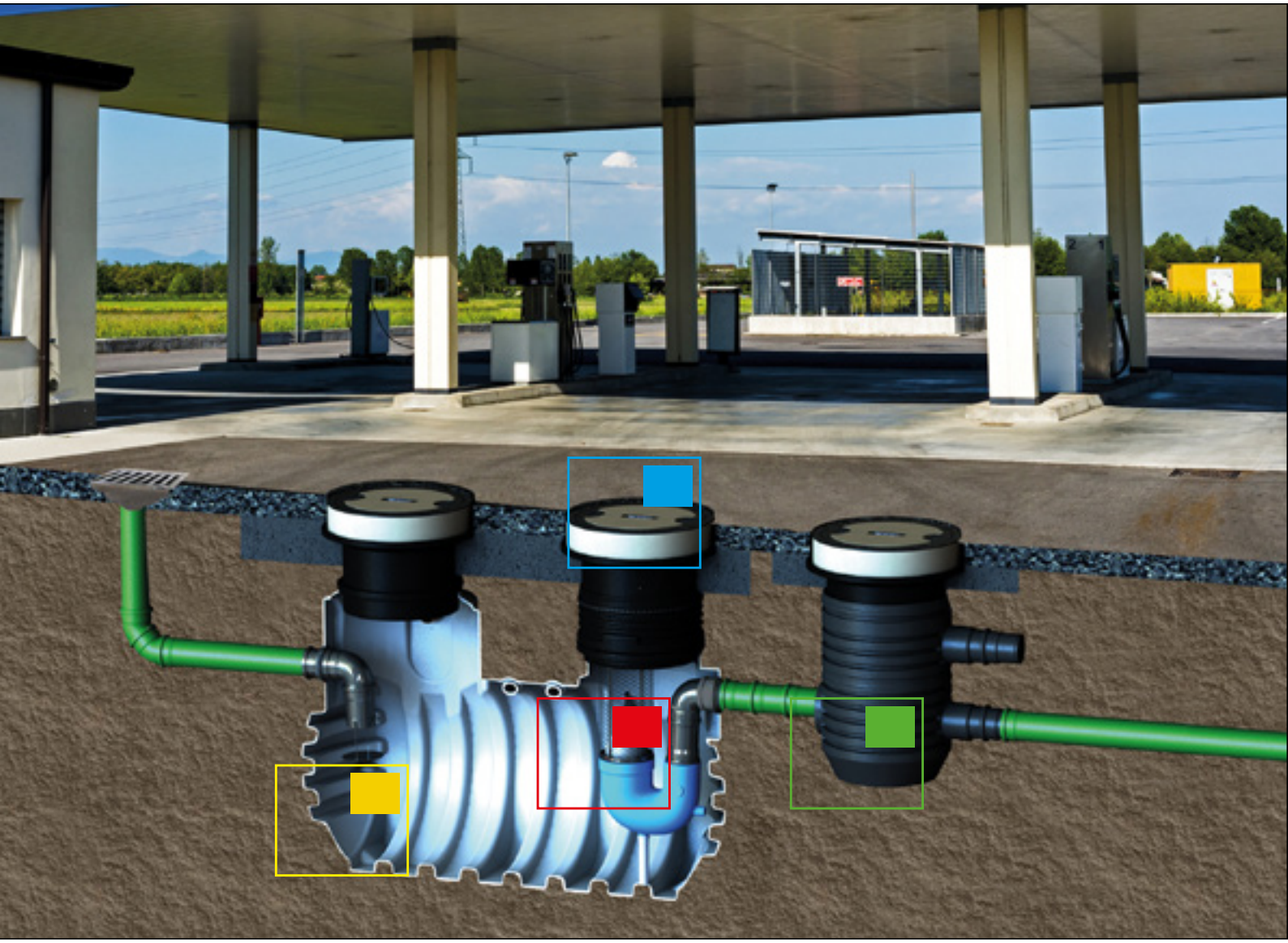
Separators

GREASE SEPARATORS AND LIGHT LIQUID SEPARATORS



EN Edition 2020
950533 – A40

Plastic separators



Plastic – clear advantages over concrete

Because of their low weight, separtors made of plastic can be installed without heavy equipment. This allows easy transport and installation even in places that are difficult to access.

Maximum water pollution control

Pure, clean water is one of the essential things in life, yet it's exposed to a large number of pollutants. One of the greatest hazards is contamination with light mineral liquids. A single drop of petrol is enough to contaminate one cubic metre of water.
GRAF separators offer maximum safety and protect the environment. The focus is of course on compliance with stipulated limit values.

Ready for connection

All the components of GRAF separators are pre-fitted ready for connection, allowing time to be saved during on-site installation.

Tested safety – with approval

GRAF separators are made of particularly robust and tough plastic.
The fact that it is sealed up to the ground surface is a major advantage of plastic as a material.

No need to refurbish

Since they come into constant contact with highly aggressive wastewaters, concrete separators are at risk of corrosion and may require expensive refurbishment. Plastic separators, on the other hand, have smooth inner surfaces that will not corrode.

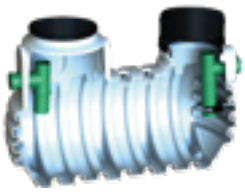
System at a glance

Separators

Saphir grease separator
NS 1 – NS 4
›› Page 8



Diamant grease separator
NS 4 – NS 15
›› Page 10



Saphir class I + II Light liquid separators
NS 3 – NS 6
›› Page 18

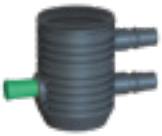


Diamant class I + II light liquid separator
NS 6 – NS 15
›› Page 20

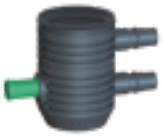


External sampling shaft

External sampling shaft
DN 150 Item no. 107975
DN 200 Item no. 107982
›› Page 13



External sampling shaft
DN 150 Item no. 107975
DN 200 Item no. 107982
›› Page 23



Covers and Telescopic dome shaft

Concrete cover Grease separators
Class B Item No. 107910
Class D Item No. 107911
›› Page 12



Concrete cover sampling shaft
Class B Item No. 107983
Class D Item No. 107984
›› Page 12



Telescopic dome shaft for grease separator and sampling shaft
Item no. 107974
›› Page 12



Concrete cover Light liquid separators
Class B Item No. 107967
Class D Item No. 107968
›› Page 22



Concrete cover sampling shaft
Class B Item No. 107983
Class D Item No. 107984
›› Page 22



Telescopic dome shaft for light liquid separator and sampling shaft
Item no. 107974
›› Page 22



Accessories

Grease separators Warning system GA-1
Grease film thickness
Item no. 106513
›› Page 13



Grease separators Warning system GA-2
Grease film thickness and liquid level
Item no. 106514
›› Page 13



Light liquid separators Warning sensors
›› Page 23

Type 1: Oil film thickness alarm
Item no. 107964

Type 2: Build-up alarm
Item no. 107965

Type 3: Oil film thickness and build-up alarm
Item no. 107966





Grease separators

Areas of application

Grease separators are needed wherever water is contaminated with fats and oils of natural origin. This concerns for example the following operations:

- Kitchen facilities and industrial kitchens (restaurants, hotels, etc.)
- Food distribution points with return dishes
- Meat and sausage processing plants (e.g. slaughterhouses, butcheries)
- Oil processing plants (e.g. oil mills)
- Plants for the production of ready meals

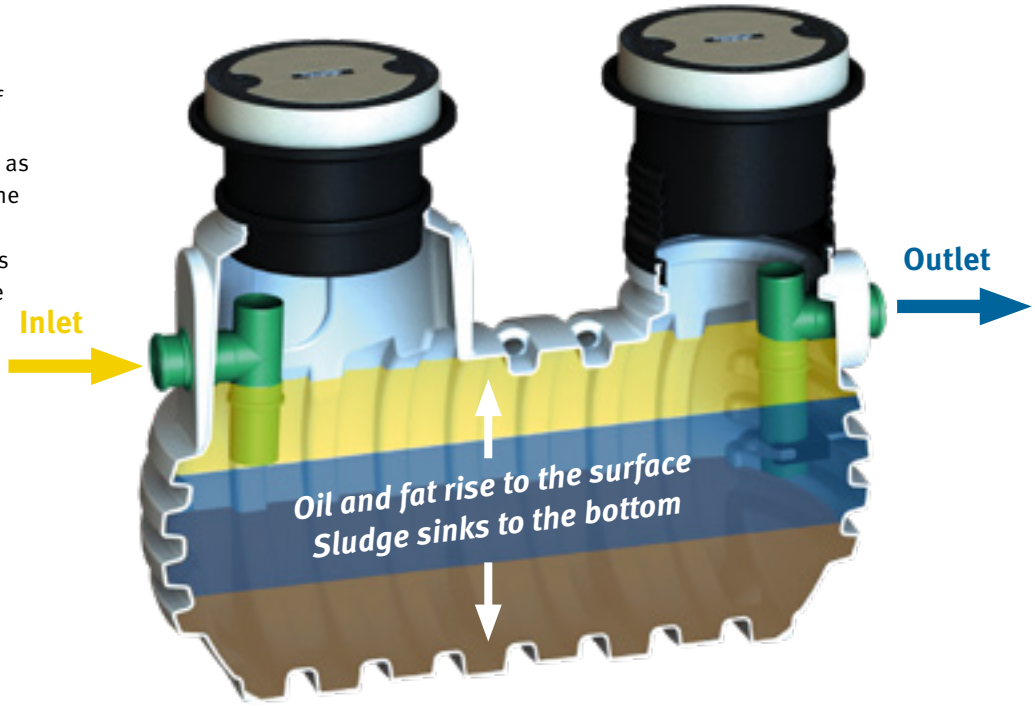
Sizing

Separator systems are classified by NS (nominal size). The choice of nominal size for the separator is specified in Part 2 of EN 1825. Furthermore, the requirements of the respective competent authority must be observed.

A free calculation service for sizing according to EN 1825 is available on request.

Functional principle

A grease separator system works according to the physical principle of gravity. This means that heavy components in the wastewater, such as sludge, can settle at the bottom of the tank.
In contrast, light components such as fats and oils rise to the surface of the water.



Grease collection area | Separation area | Sludge reservoir



Video grease separator

GRAF TV
www.graf.info/v218

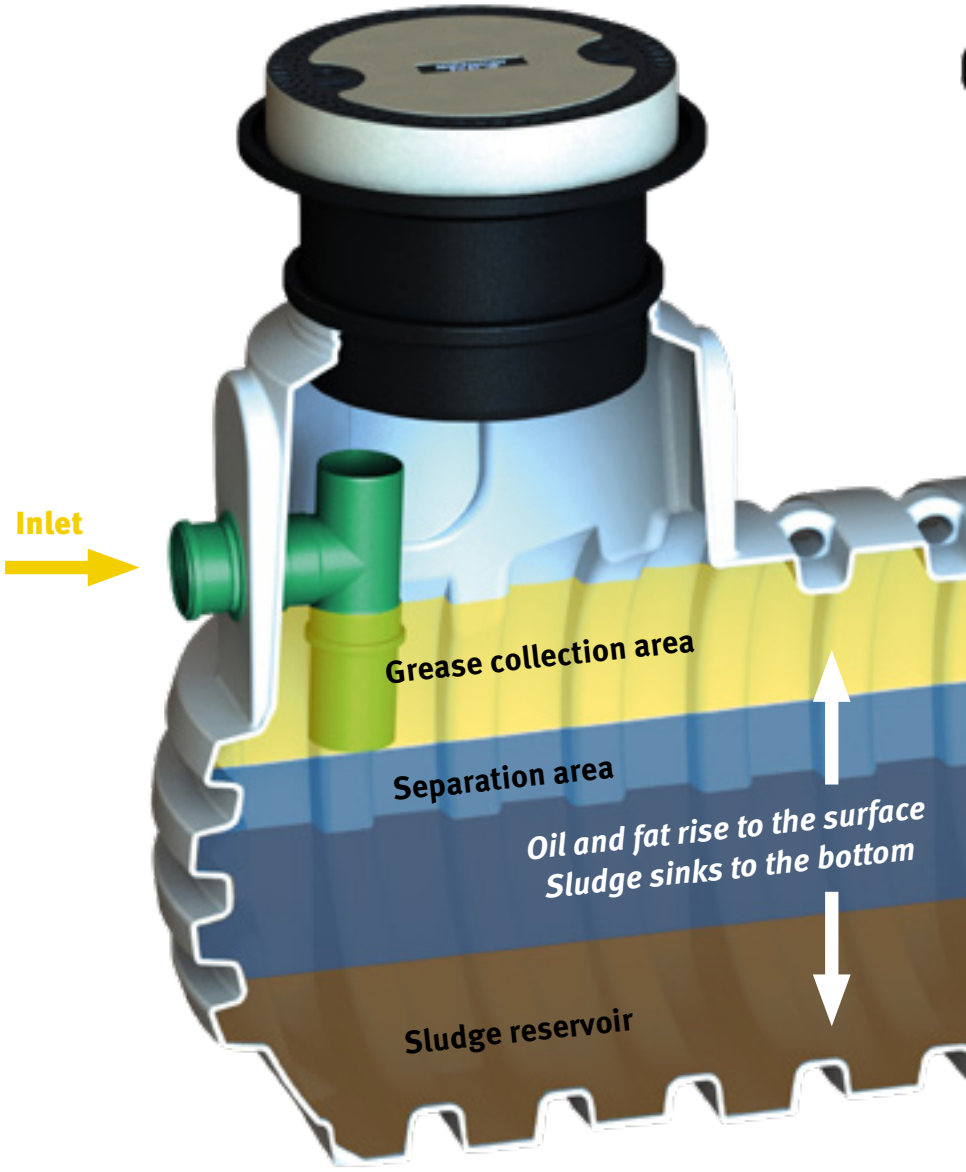
System overview grease separator

CE
EN 1825

Flexible tank dome:

- Sealed up to the ground surface
- Easy adjustment to the ground surface thanks to telescopic / tiltable dome shaft
- Compatible with standard concrete rings and covers





Two tank domes

From size NS4, GRAF grease separators have two tank domes. Inlet and outlet are therefore easily accessible for easier inspection.

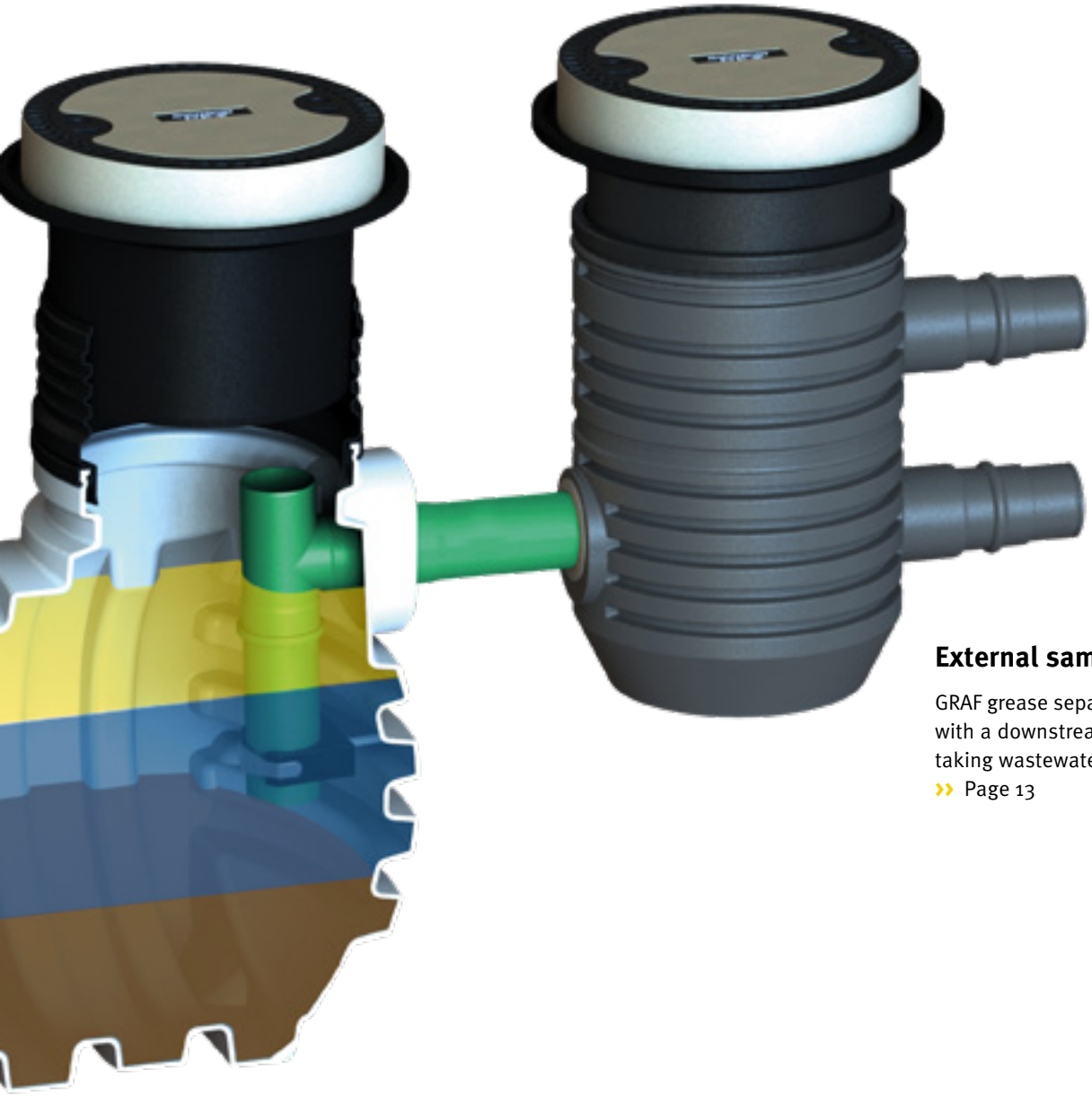
HGV trafficable

In conjunction with HGV trafficable Class D cover

›› Page 12

Low weight

Thanks to their low weight, GRAF separators can be installed without heavy equipment. This allows easy transport and installation even in places that are difficult to access.



External sampling shaft

GRAF grease separators can be extended with a downstream sampling point for taking wastewater samples.
›› Page 13

No need to refurbish

GRAF separators feature smooth and corrosion-free inner surfaces thanks to their high-quality plastic tank.

Ready for connection

All the components of GRAF separators are pre-fitted ready for connection, allowing time to be saved during on-site installation.

Saphir grease separator

NS 1 – 4

CE

EN 1825



Scope of supply

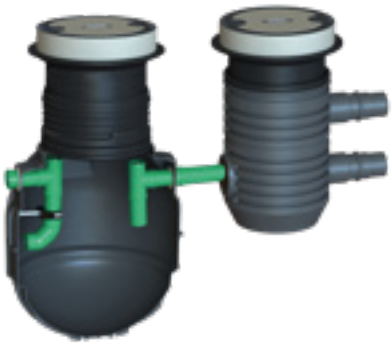
① Saphir tank

② Pre-assembled components of grease separator

Not included in the scope of supply:

③ Telescopic dome shaft separator ›› Page 12

④ Concrete cover for grease separator ›› Page 12



Saphir grease separator with external sampling shaft ›› Page 13

Saphir grease separator

NS [l/s]	Connection [DN]	Grease [litres]	Sludge [litres]	Total [litres]	Item no. [1]
1 – 200	100	200	200	500	108000
2 – 200	100	200	200	500	108001
2 – 200	100	300	200	730	108002
2 – 400	100	200	400	730	108003
2 – 500	100	300	500	1.025	108004
4 – 500	100	300	500	1.025	108005

Effectiveness tested by TÜV Rheinland according to EN 1825. [1]Telescopic dome shaft and cover not included

Web code G5605

Accessories

›› Page 12/13

External sampling shaft



Telescopic dome shaft
For grease separator and sampling shaft



Concrete cover
Class B and class D

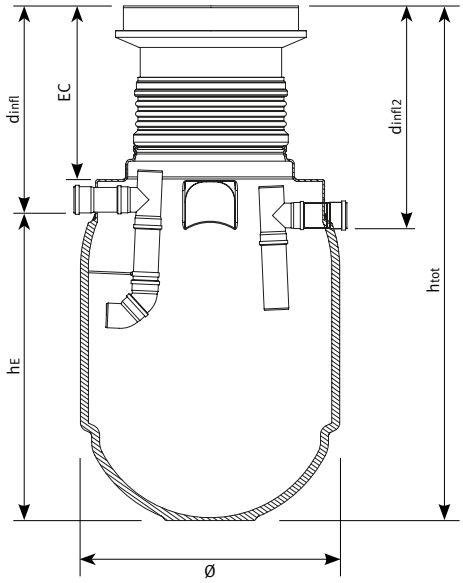


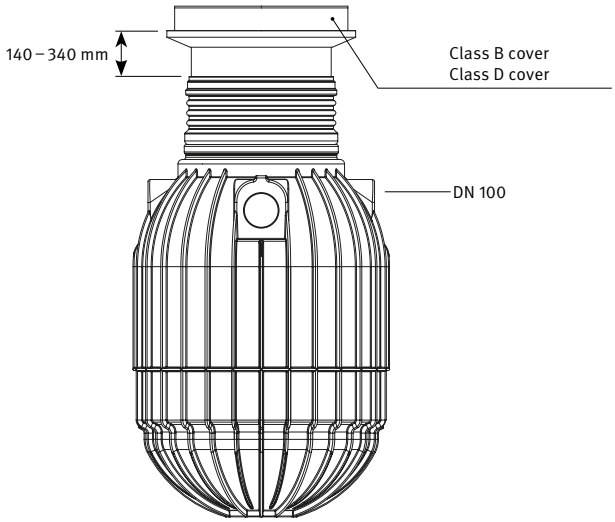
Intermediate piece
400 mm and 1100 mm



Warning systems
GA-1 and GA-2







Class B cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	d_{infl2} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
1 – 200	100	835	800 – 980	870 – 1050	1620 – 1800	700 – 1200	1125	41
2 – 200	100	835	800 – 980	870 – 1050	1620 – 1800	700 – 1200	1125	41
2 – 200	100	1050	860 – 1040	930 – 1110	1900 – 2080	700 – 1200	1155	70
2 – 400	100	1050	860 – 1040	930 – 1110	1900 – 2080	700 – 1200	1155	70
2 – 500	100	1375	870 – 1070	940 – 1140	2220 – 2400	700 – 1200	1155	100
4 – 500	100	1375	870 – 1070	940 – 1140	2220 – 2400	700 – 1200	1155	100

Class D cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	d_{infl2} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
1 – 200	100	835	830 – 1010	900 – 1080	1650 – 1830	700 – 1200	1125	41
2 – 200	100	835	830 – 1010	900 – 1080	1650 – 1830	700 – 1200	1125	41
2 – 200	100	1050	890 – 1070	960 – 1040	1930 – 2110	700 – 1200	1155	70
2 – 400	100	1050	890 – 1070	960 – 1040	1930 – 2110	700 – 1200	1155	70
2 – 500	100	1375	910 – 1090	980 – 1160	2260 – 2440	700 – 1200	1155	100
4 – 500	100	1375	910 – 1090	980 – 1160	2260 – 2440	700 – 1200	1155	100

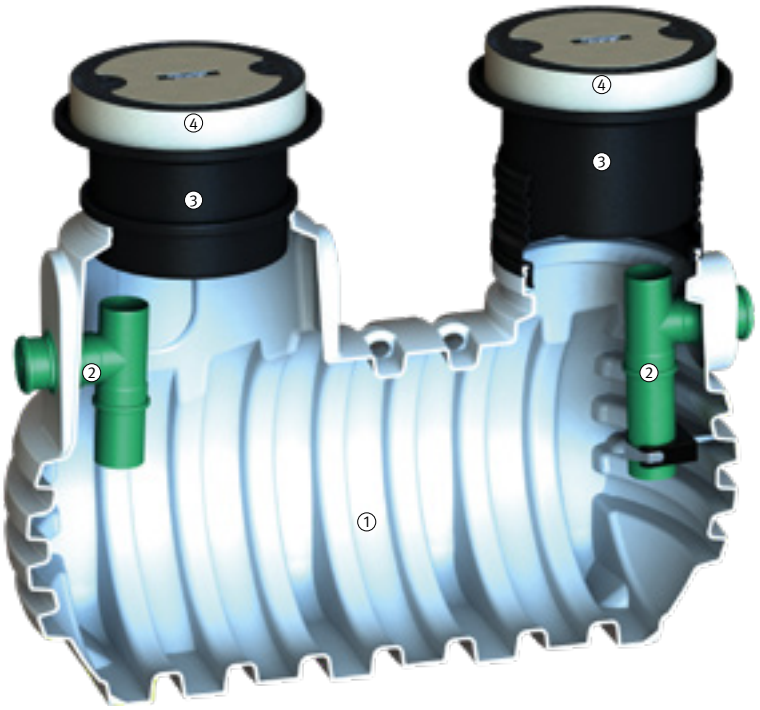
Technical data

Max. earth covering:	1200 mm
Max. axle load:	10 t (in conjunction with a load distribution plate)
Max. vehicle weight:	60 t (in conjunction with a load distribution plate)
Required earth covering for trafficability:	700 – 1200 mm above tank shoulder
Groundwater stability:	500 l, 730 l immersion depth max. 430 mm, 1,025 l immersion depth max. 550 mm
Required earth covering with groundwater installation:	700 – 1200 mm above tank shoulder
Connection:	DN 100

Diamant grease separator

NS 4 – 15

EN 1825

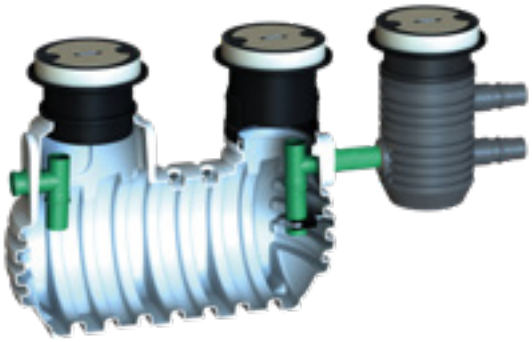


Scope of supply

① Diamant tank incl. 1 intermediate piece as a tank dome
② Pre-assembled components of grease separator

Not included in the scope of supply:

③ Telescopic dome shaft separator ›› Page 12
④ Concrete cover for grease separator ›› Page 12



Diamant grease separator with external sampling shaft ›› Page 13

Diamant grease separator

NS [l/s]	Connection [DN]	Grease [litres]	Sludge [litres]	Total [litres]	Item no. [1]
4 – 700	150	350	700	2.070	108006
7 – 700	150	350	700	2.070	108007
10 – 1500	200	600	1.500	3.160	108008
15 – 1500	200	600	1.500	3.160	108009

Effectiveness tested by TÜV Rheinland according to EN 1825. [1]Telescopic dome shaft and cover not included

Web code G5606

Accessories

›› Page 12/13

External sampling shaft



Telescopic dome shaft
For grease separator and sampling shaft



Concrete cover
Class B and class D

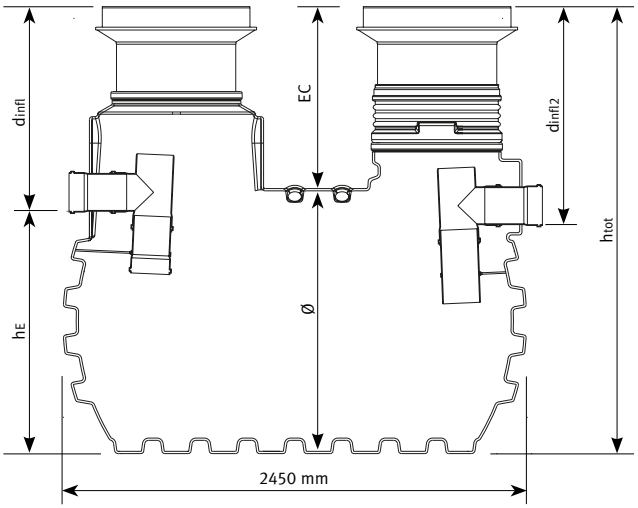


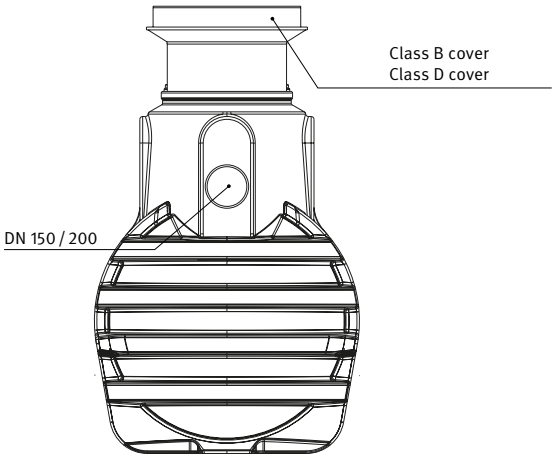
Intermediate piece
400 mm and 1100 mm



Warning systems
GA-1 and GA-2







Class B cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	d_{infl2} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
4 – 700	150	1080	880 – 1060	950 – 1130	1960 – 2240	700 – 910	1150	165
7 – 700	150	1080	880 – 1060	950 – 1130	1960 – 2240	700 – 910	1150	165
10 – 1500	200	1280	930 – 1110	1000 – 1180	2210 – 2390	700 – 910	1400	250
15 – 1500	200	1280	930 – 1110	1000 – 1180	2210 – 2390	700 – 910	1400	250

Class D cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	d_{infl2} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
4 – 700	150	1080	920 – 1100	990 – 1170	2000 – 2180	700 – 910	1150	165
7 – 700	150	1080	920 – 1100	990 – 1170	2000 – 2180	700 – 910	1150	165
10 – 1500	200	1280	970 – 1150	1040 – 1220	2250 – 2430	700 – 910	1400	250
15 – 1500	200	1280	970 – 1150	1040 – 1220	2250 – 2430	700 – 910	1400	250

Technical data

Max. earth covering:	910 mm
Max. axle load:	10 t (in conjunction with a load distribution plate)
Max. vehicle weight:	60 t (in conjunction with a load distribution plate)
Required earth covering for trafficability:	700 – 910 mm above tank shoulder
Groundwater stability:	Type 2 2,070 l immersion depth max. 575 mm Type 3 3,160 l immersion depth max. 700 mm
Required earth covering with groundwater installation:	700 – 910 mm above tank shoulder
Connection:	DN 150 / DN 200

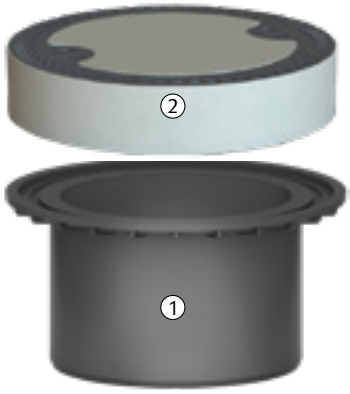
Accessories for grease separators

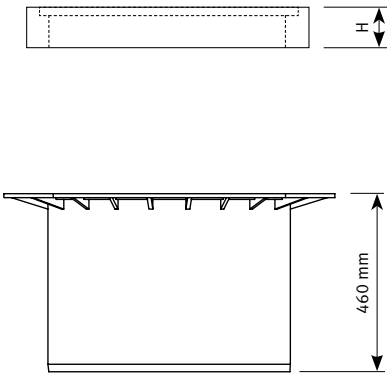
Covers

Concrete covers for grease separators; concrete/cast; screwed; with inscription "Separator/Separador/Séparateur/Separatorer

Cover	ø [mm]	Height H [mm]	Effective height [mm]	Weight [kg]	Item no.
Intermediate piece, short	600	400	300	6	371039
Intermediate piece, long	600	1210	1000	22	371061
① Telescopic dome shaft, separators	855	460	340	11	107974
② Class B concrete cover for grease separators	780	135	115*	120	107910
② Class D concrete cover for grease separators	780	160	140*	180	107911
② Class B concrete cover for sampling shaft	730	125	105*	97	107983
② Class D concrete cover for sampling shaft	730	165	145*	174	107984
Lifting key for covers					934790

* Height less 20 mm, which the concrete cover protrudes into the telescopic dome shaft





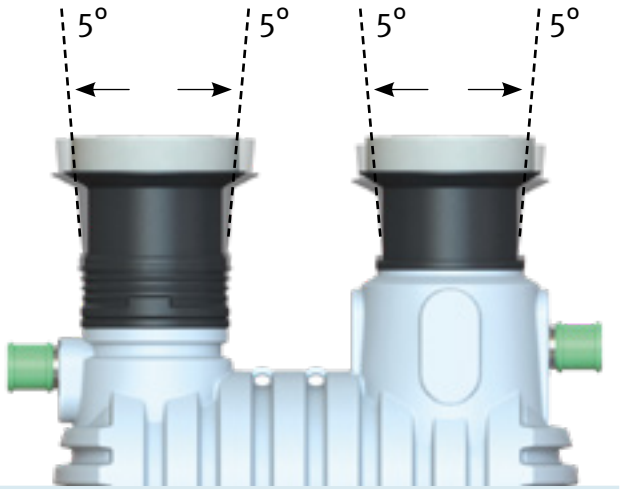
Dome structure

- Including NBR lip seals for smooth Connection
- Sealed up to the ground surface
- Easy adjustment to the ground surface thanks to telescopic/tilting dome shaft
- Can be driven over by cars or trucks – for standard concrete rings/covers
- Infinitely adjustable earth covering across upper tank surface, tilts 5° (ideal for asphalt surfaces)

Please note: A load-distributing reinforced concrete slab is required to permanently ensure trafficability for cars and trucks. Further information can be found in our installation instructions.

Height adjustable and tiltable

The dome structures can be adjusted in height and inclination (up to 5%), allowing greater flexibility during installation.

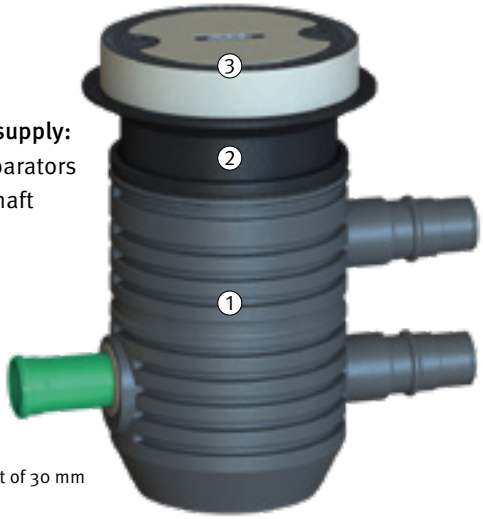


External sampling shaft

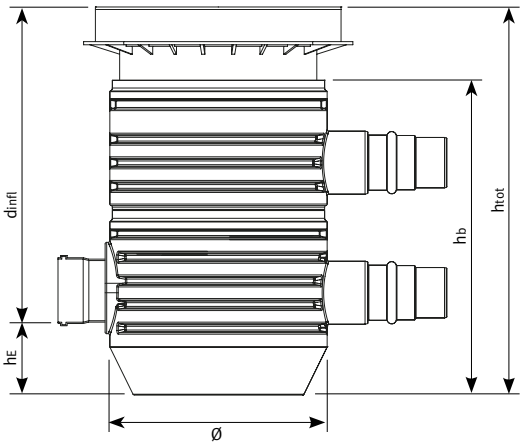
The separator systems can be extended with an external sampling point. The sampling shaft is connected downstream from the separator tank. In addition to taking wastewater samples in accordance with the regulations, it is also used to check and maintain the system.

Scope of supply
① sampling shaft

Not included in the scope of supply:
② Telescopic dome shaft, separators
③ Concrete cover sampling shaft



External sampling with DN 150/200
Connection, difference inlet and outlet of 30 mm



Connection [DN]	Ø [mm]	Item no.
150	600	107975
200	600	107982

Class B cover

hE [mm]	hb [mm]	dinfl [mm]	htot [mm]	Weight [kg]
285	1000	975 – 1155	1260 – 1440	19
260	1000	1000 – 1180	1260 – 1440	19

Class D cover

hE [mm]	hb [mm]	dinfl [mm]	htot [mm]	Weight [kg]
285	1000	1015 – 1195	1300 – 1480	21
260	1000	1040 – 1220	1300 – 1480	21



Warning system GA-1
Grease film thickness, incl. 10 m cable (other cable lengths on request)
Item no. 106513



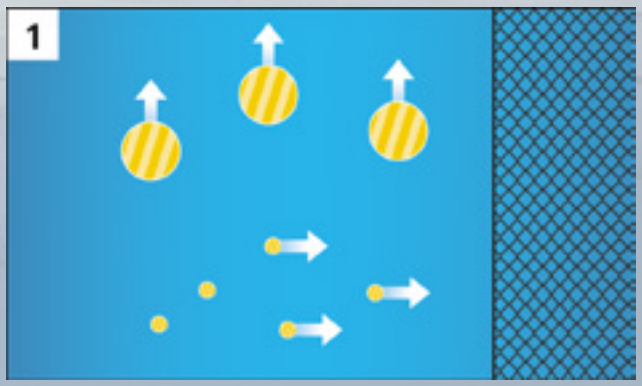
Warning system GA-2
Visual and acoustic warning when the grease film thickness is reached or is overflowing, incl. 5 m cable (other cable lengths on request)
Item no. 106514

Warning system connection set
Incl. wall duct, seal, drill
Item no. 106869



Wall duct
with NBR seal,
for separator
Item no. 106515

What does a coalescence unit do?



In addition to large oil droplets that can be easily separated, very small oil droplets also occur in a light liquid separator. Large oil droplets have a high difference in density to water, these rise. Small oil droplets have a small difference in density to water, these remain under the water surface.

Light liquid separators

Areas of application

A light liquid separator is needed wherever water is contaminated with petrol, mineral oils or greases.
This concerns for example the following operations:

- Petrol stations
- Car washes
- Garages
- Large/public parking areas (if required by the authorities)

Sizing

Separator systems are classified by NS (nominal size). The choice of nominal size for the separator is specified in Part 2 of EN 825.
Furthermore, the requirements of the respective competent authority must be observed. A free calculation service for sizing according to EN 825 is available on request.

Functional principle

A light liquid separator system works according to the physical principle of gravity. This means that heavy components in the wastewater, such as sludge and sand, can settle in the optional sludge trap and / or in the sludge trap integrated in the separator. In contrast, light components such as fats and oils rise to the surface of the water. An optional coalescence unit improves the separation efficiency of a light liquid separator.

Optional coalescence unit

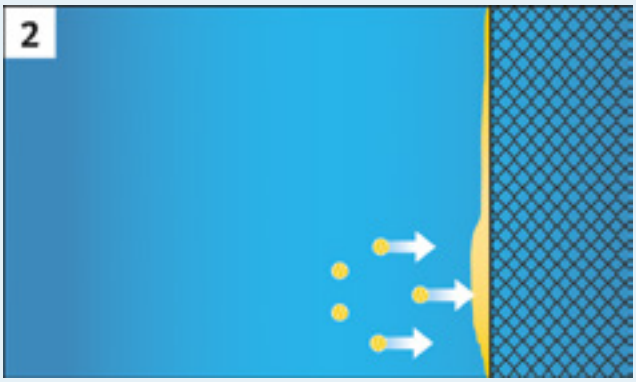
- No wear and tear
- Easy to clean
- Low weight



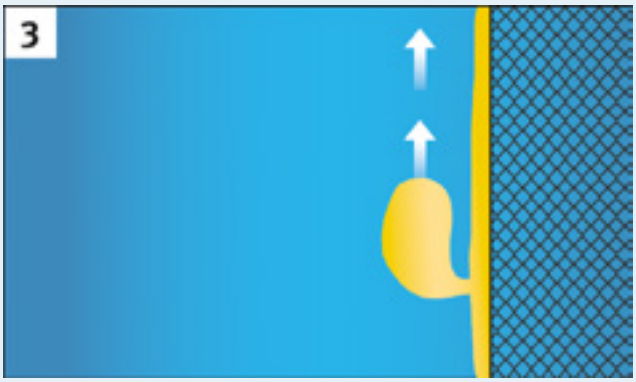
Video light liquid separator

GRAF TV
www.graf.info/v219

Petrol, oils



To allow these small oil droplets to rise, the class 1 light liquid separator features a coalescence unit where the small oil droplets can collect.



If enough small oil droplets have collected on the coalescence unit, large oil drops will be formed there. These rise and can be separated.

Light liquid separators

Procedure and structure

CE
EN 825

Class II and Class I

The **class II** system is the basic version of the light liquid separators. Due to the amount of oil they store, the separators are designed so that they can also be used at petrol stations with high-performance fuel pumps.

The **Class I** separator is a coalescence separator. It features an additional coalescence unit that enables a much higher degree of separation.

Two tank domes

From size NS 6 T, GRAF light liquid separators have two tank domes. Inlet and outlet are therefore easily accessible for easier inspection.

Flexible tank dome:

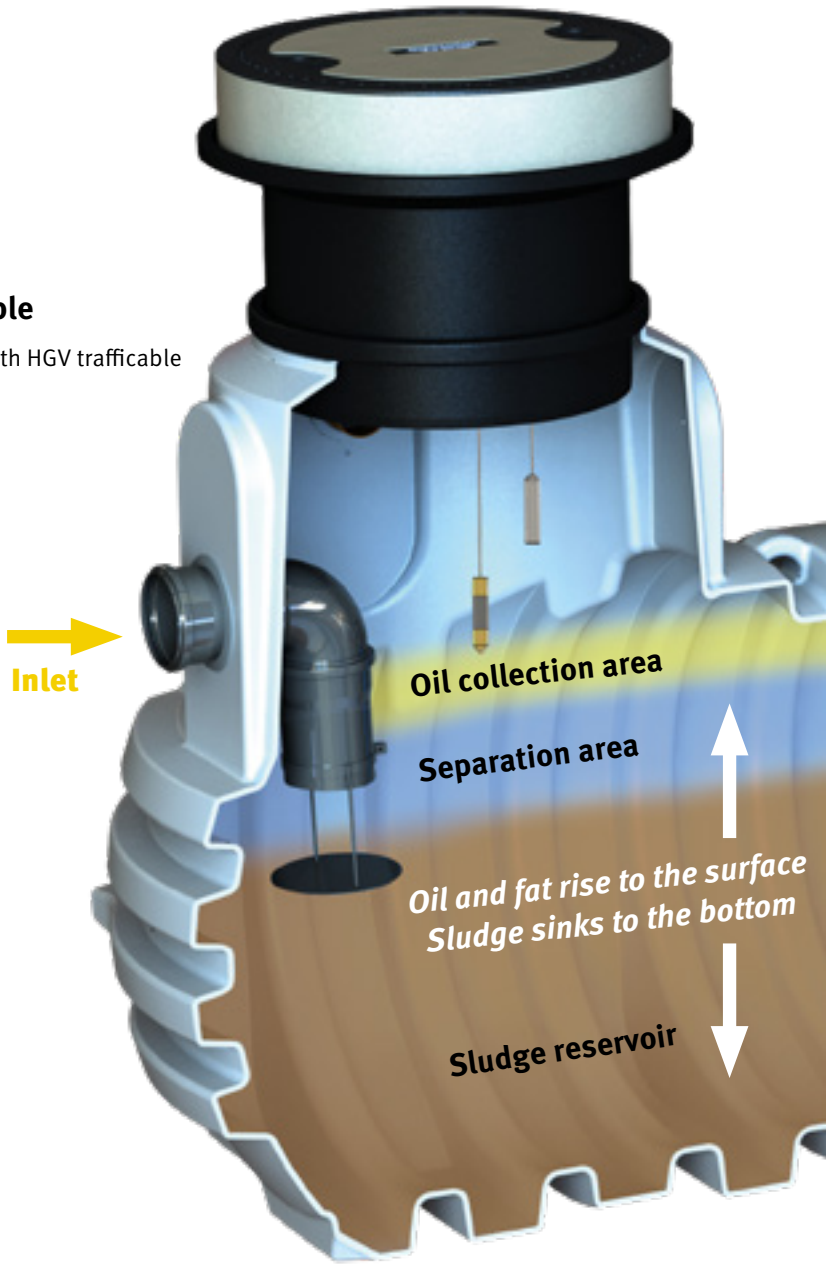
- Sealed up to the ground surface
- Easy adjustment to the ground surface thanks to telescopic/ tiltable dome shaft
- Compatible with standard concrete rings and covers



HGV trafficable

In conjunction with HGV trafficable Class D cover

›› Page 22



Optional sludge trap

Information on an optional sludge trap

›› Page 24

No need to refurbish

GRAF separators feature smooth and corrosion-free inner surfaces thanks to their high-quality plastic tank.

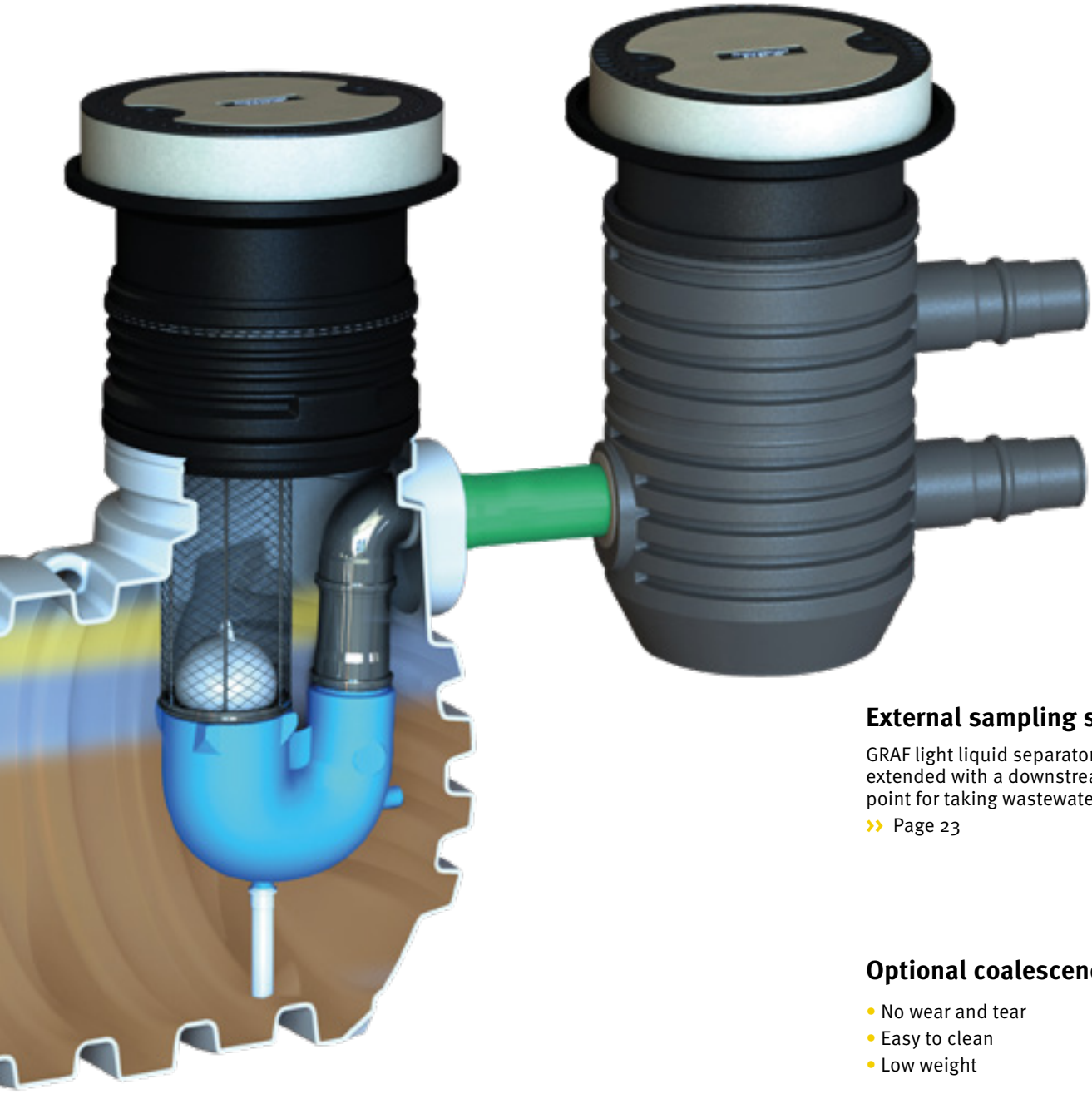
Ready for connection

All the components of GRAF separators are pre-fitted ready for connection, allowing time to be saved during on-site installation.

Suitable for petrol stations

GRAF separators are suitable for high-performance dispensing pumps with maximum volume flows of up to 150 l/min.

Separation efficiency*
Class I ≤ 5 mg/l residual oil
Class II ≤ 100 mg/l residual oil



External sampling shaft

GRAF light liquid separators can be extended with a downstream sampling point for taking wastewater samples.

›› Page 23

Optional coalescence unit

- No wear and tear
- Easy to clean
- Low weight



Self-acting closing unit

The float of this unit ensures that when the maximum storage volume of the light liquid is reached, the outlet is closed and thus any liquid is retained in the separator.

Low weight

Thanks to their low weight, GRAF separators can be installed without heavy equipment. This allows easy transport and installation even in places that are difficult to access.

Warning sensors

Warning sensors for oil film thickness and liquid overflow

›› Page 23

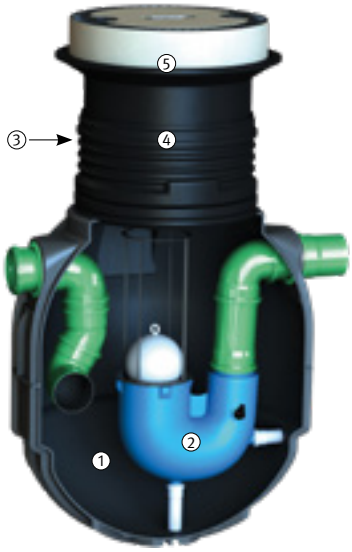


*under test conditions

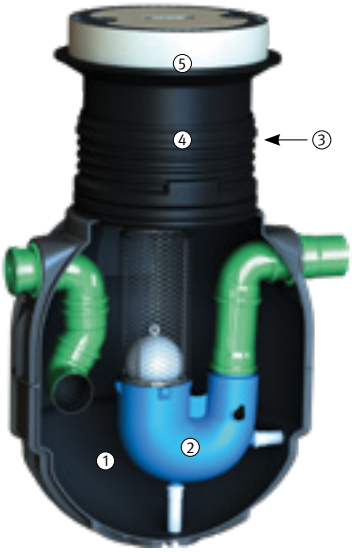
Saphir light liquid separators

NS 3 – 6

Class II fuel separator



Class I coalescence separator



Scope of supply

① Saphir tank

② Pre-assembled components of light liquid separator

Not included in the scope of supply:

③ Intermediate piece as tank dome ›› Page 22

④ Telescopic dome shaft separator ›› Page 22

⑤ Concrete cover for light liquid separator ›› Page 22

CE

EN 858-2

Saphir light liquid separators

NS [l/s]	Connection [DN]	Light liquid [litres]	Sludge [litres]	Total [litres]	Item no. Class II	Item no. Class I
3	150	300	300	770	108100	108101
3	150	500	400	1.100	108102	108103
3	150	300	600	1.080	108104	108105
6	150	300	600	1.080	108106	108107

Web code G5607

Accessories

›› Page 22/23

External sampling shaft



Telescopic dome shaft
For grease separator and sampling shaft



Intermediate piece
400 mm and 1100 mm

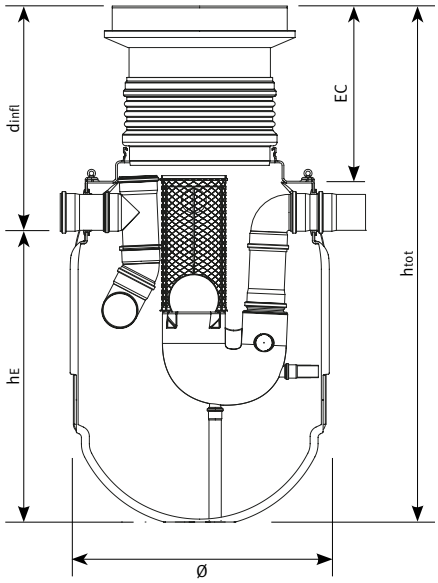


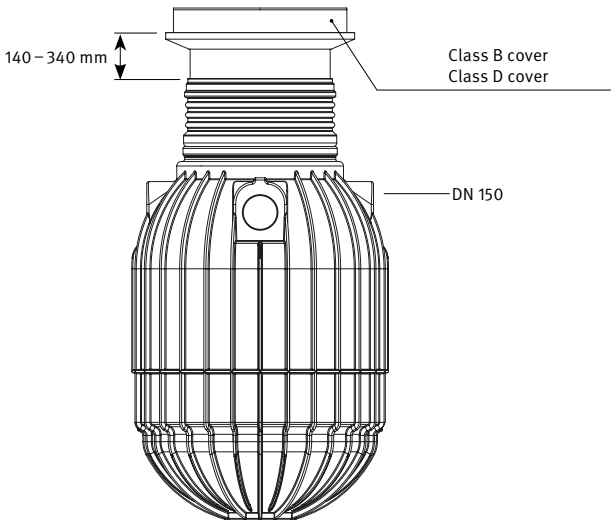
Concrete cover
Class B and class D



Warning sensors
Type 1 – Type 3







Class B cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
3	150	1000	905 – 1105	1905 – 2105	700 – 1200	1155	80
3	150	1320	910 – 1110	2230 – 2430	700 – 1200	1155	110
6	150	1000	905 – 1105	1905 – 2105	700 – 1200	1155	80
6	150	1320	910 – 1110	2230 – 2430	700 – 1200	1155	110

Class D cover

NS [l/s]	Connection [DN]	h_E [mm]	d_{infl} [mm]	h_{tot} [mm]	EC [mm]	Ø [mm]	Weight [kg]
3	150	1000	930 – 1130	1930 – 2130	700 – 1200	1155	80
3	150	1320	935 – 1135	2255 – 2455	700 – 1200	1155	110
6	150	1000	930 – 1130	1930 – 2130	700 – 1200	1155	80
6	150	1320	935 – 1135	2255 – 2455	700 – 1200	1155	110

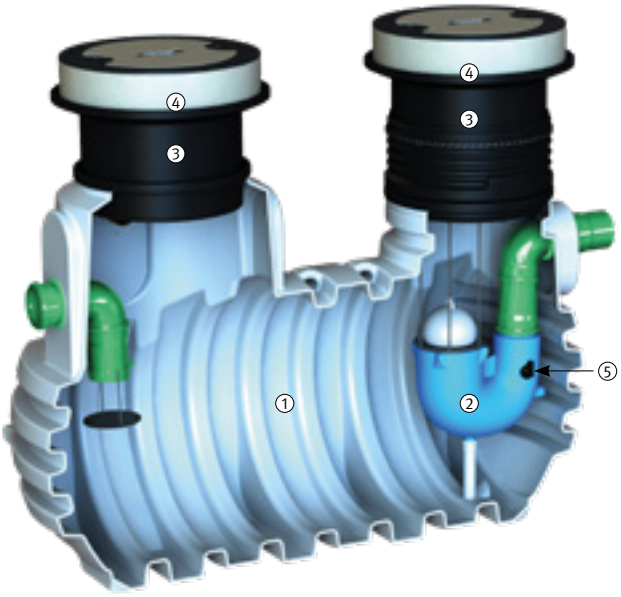
Technical data

Max. earth covering:	1200 mm
Max. axle load:	10 t (in conjunction with a load distribution plate)
Max. vehicle weight:	60 t (in conjunction with a load distribution plate)
Required earth covering for trafficability:	700 – 1200 mm above tank shoulder
Groundwater stability:	700 l immersion depth max. 430 mm, 1,080 l, 1,100 l immersion depth max. 550 mm
Required earth covering with groundwater installation:	700 – 1200 mm above tank shoulder
Connection:	DN 150

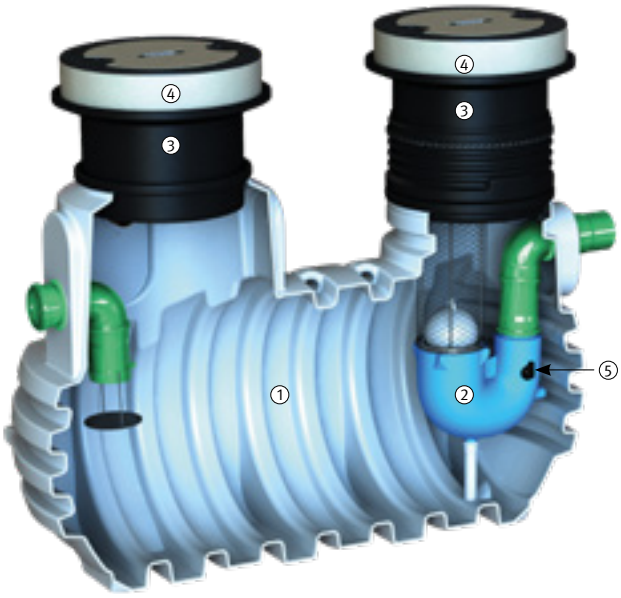
Diamant light liquid separators

NS 6 – 15

Class II fuel separator



Class I coalescence separator



Scope of supply

① Diamant tank incl. 1 intermediate piece as tank dome
② Pre-assembled components of light liquid separator

CE
EN 858-2

Not included in the scope of supply:

③ Telescopic dome shaft separator ›› Page 22
④ Concrete cover for light liquid separator ›› Page 22
⑤ Internal sampling connection point ›› see below

Diamant light liquid separators

NS [l/s]	Connection [DN]	Light liquid [litres]	Sludge [litres]	Total [litres]	Item no. Class II	Item no. Class I
6	150	500	1.300	2.210	108108	108109
10	150	500	1.300	2.210	108110	108111
10	200	660	2.000	3.330	108112	108113
15	200	660	2.000	3.330	108114	108115

Web code G5608

Accessories

›› Page 22/23

External sampling shaft



Telescopic dome shaft
For light liquid separators and sampling shaft



Concrete cover
Class B and class D

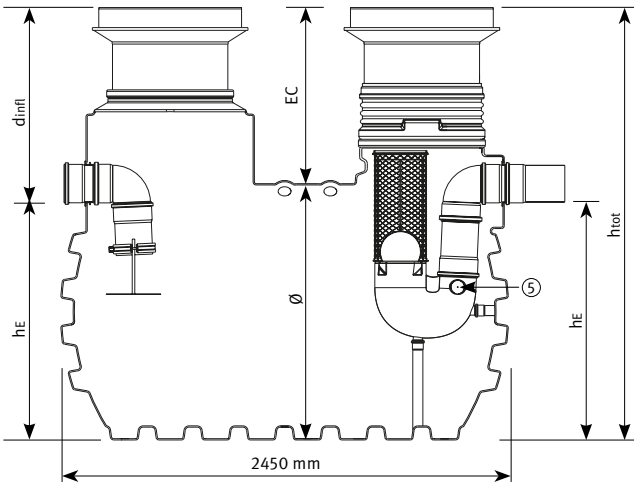


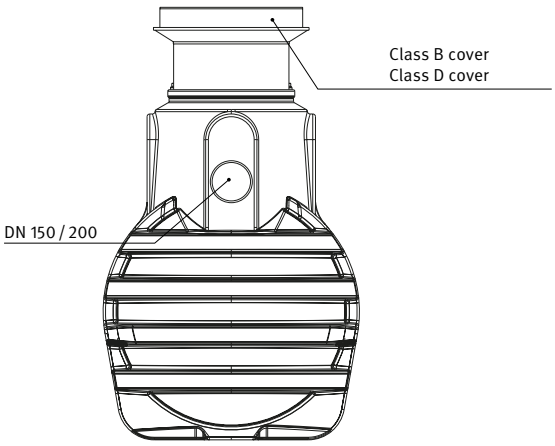
Internal sampling connection point
for grease separators



Warning sensors
Type 1 – Type 3







Class B cover

NS [l/s]	Connection [DN]	hE [mm]	dinfl [mm]	htot [mm]	EC [mm]	Ø [mm]	Weight [kg]
6	150	1090	790 – 1080	1880 – 2170	700 – 910	1150	165
10	150	1090	790 – 1080	1880 – 2170	700 – 910	1150	165
10	200	1280	855 – 1145	2135 – 2425	700 – 910	1400	250
15	200	1280	855 – 1145	2135 – 2425	700 – 910	1400	250

Class D cover

NS [l/s]	Connection [DN]	hE [mm]	dinfl [mm]	htot [mm]	EC [mm]	Ø [mm]	Weight [kg]
Intermediate piece, short	600	400	300	6	371039	600	6
Intermediate piece, long	600	1210	1000	22	371061	600	22
6	150	1090	815 – 1105	1905 – 2195	700 – 910	1150	165
10	150	1090	815 – 1105	1905 – 2195	700 – 910	1150	165
10	200	1280	880 – 1170	2160 – 2450	700 – 910	1400	250
15	200	1280	880 – 1170	2160 – 2450	700 – 910	1400	250

Technical data

Max. earth covering:	910 mm
Max. axle load:	10 t (in conjunction with a load distribution plate)
Max. vehicle weight:	60 t (in conjunction with a load distribution plate)
Required earth covering for trafficability:	700 – 910 mm above tank shoulder
Groundwater stability:	2,210 l immersion depth max. 575 mm 3,330 l immersion depth max. 700 mm
Required earth covering with groundwater installation:	700 – 910 mm above tank shoulder
Connection:	DN 150 / DN 200

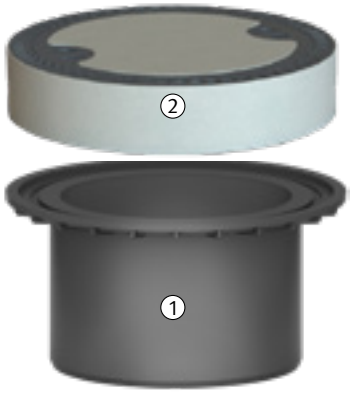
Accessories for light liquid separators

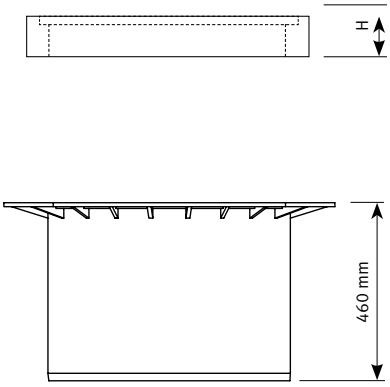
Covers

Concrete covers for light liquid separators; concrete/cast; screwed; with inscription "Separator/Separador/Séparateur/Separatorer"

Cover	ø [mm]	Height H [mm]	Effective height [mm]	Weight [kg]	Item no.
Intermediate piece	600	400	300	6	371039
Intermediate piece	600	1210	1000	22	371061
① Telescopic dome shaft, separators	855	460	340	11	107974
② Class B concrete cover for light liquid separators	780	135	115*	120	107967
② Class D concrete cover for light liquid separators	780	160	140*	180	107968
② Class B concrete cover for sampling shaft	730	125	105*	97	107983
② Class D concrete cover for sampling shaft	730	165	145*	174	107984
Lifting key for covers					934790

* Height less 20 mm, which the concrete cover protrudes into the telescopic dome shaft





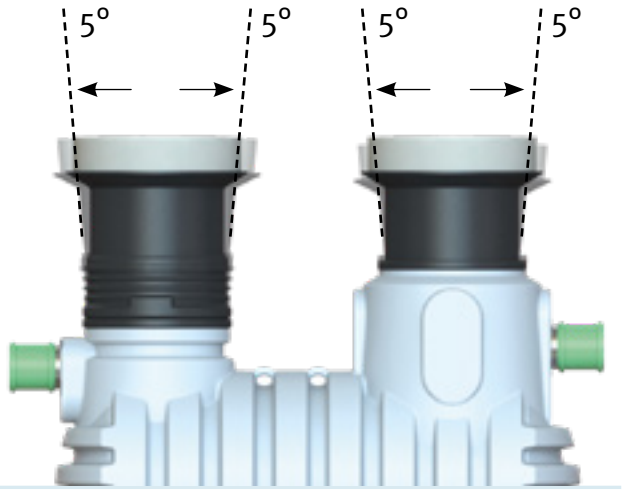
Dome structure

- Including NBR lip seals for smooth Connection
- Sealed up to the ground surface
- Easy adjustment to the ground surface thanks to to telescopic/tilting dome shaft
- Can be driven over by cars or trucks – for standard concrete rings/covers
- Adjustable earth covering across upper tank surface, 5° tiltable (ideal for asphalt surfaces)

Please note: A load-distributing reinforced concrete slab is required to permanently ensure trafficability for cars and trucks. Further information can be found in our installation instructions.

Height adjustable and tiltable

The dome structures can be adjusted in height and inclination (up to 5%), allowing greater flexibility during installation.

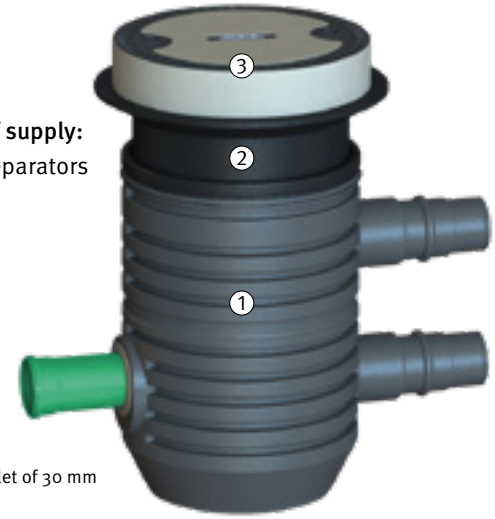


External sampling shaft

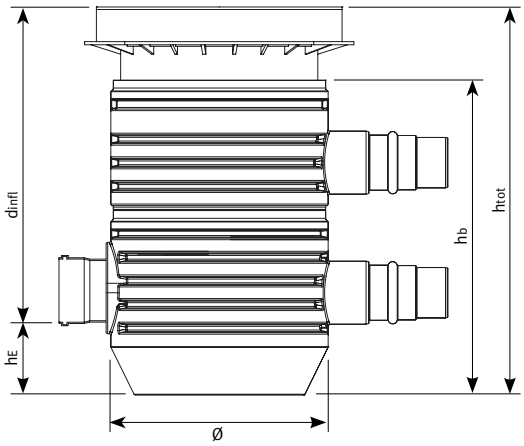
The separator systems can be extended with an external sampling point.
The sampling shaft is connected downstream from the separator tank. In addition to taking wastewater samples in accordance with the regulations, it is also used to check and maintain the system.

Scope of supply
① sampling shaft

Not included in the scope of supply:
② Telescopic dome shaft, separators
③ Concrete cover sampling shaft



External sampling with DN 150/200
Connection, difference inlet and outlet of 30 mm



Connection [DN]	Ø [mm]	Item no.
150	600	107975
200	600	107982

Class B cover

hE [mm]	hb [mm]	dinfl [mm]	htot [mm]	Weight [kg]
285	1000	975 – 1155	1260 – 1440	19
260	1000	1000 – 1180	1260 – 1440	19

Class D cover

hE [mm]	hb [mm]	dinfl [mm]	htot [mm]	Weight [kg]
285	1000	1015 – 1195	1300 – 1480	21
260	1000	1040 – 1220	1300 – 1480	21

Maintenance kit



The maintenance kit for separator systems contains everything you need to carry out the monthly self-checks.

Item no. 106619

Warning sensors

Type 1: Oil film thickness alarm

Item no. 107964

Type 2: Build-up alarm

Item no. 107965

Type 3: Oil film thickness and build-up alarm

Item no. 107966



Incl. 10 m cable
(other cable lengths on request)

Warning system connection set

Incl. wall duct, seal,
drill hole on the tank on
the desired side

Item no. 106869

Wall duct

with NBR seal,
for separator

Item no. 106515



Optional sludge trap light liquid separators



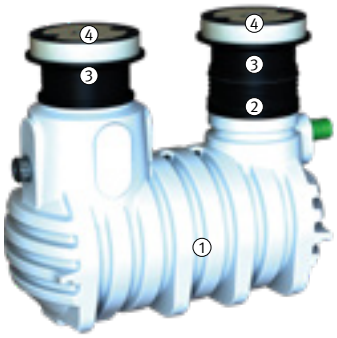
All separator systems can be extended with an upstream sludge trap. An additional sludge trap serves to retain coarse floating matter and dirt, which settle on the bottom of the sludge trap as sediment.
Subsequently, the now pre-treated wastewater is discharged into the separator. Additional sludge traps are useful and necessary if there is an increased amount of dirt in the oily wastewater, e.g. washing areas for construction site vehicles, construction machinery, agricultural machinery, truck wash stands and automatic vehicle washing systems, e.g. gantry car washes or car wash tunnels.

Scope of supply
① Saphir or Diamant tank with pre-assembled components, sludge trap

Not included in the scope of supply:
② Intermediate piece as tank dome
③ Telescopic dome shaft, separators
④ Concrete cover for light liquid separators



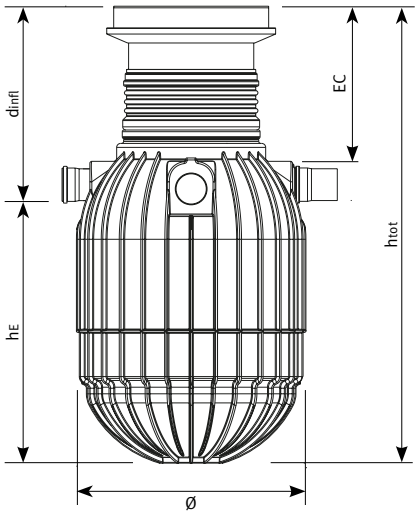
Picture shows Saphir tank incl. intermediate piece as tank dome

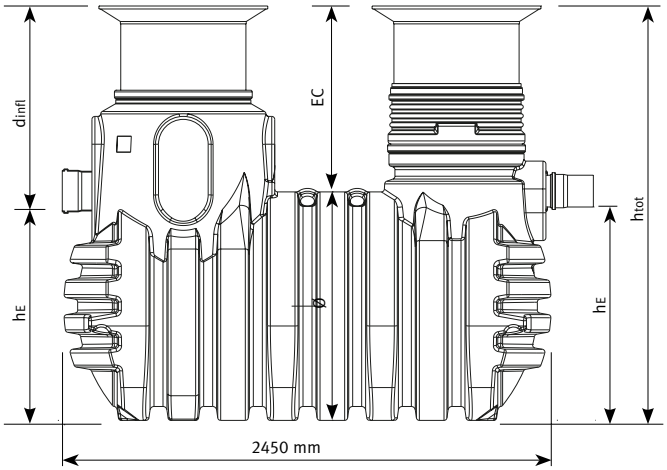


Picture shows Diamant tank incl. 1 intermediate piece as tank dome

Saphir/Diamant sludge trap

Volume [litres]	Length L [mm]	Width W [mm]	Height H [mm]	Weight [kg]	Item no. [DN 150 connection]	Item no. [DN 200 connection]
1.000	1160	1160	1670	110	107969	–
2.100	2450	1150	1660	165	107970	107992
3.200	2450	1400	1900	240	107971	107993
4.600	2450	1700	2200	370	107972	107994





Sludge trap installation dimensions

Class B cover

Volume [litres]	Connection [DN]	h_E [mm]	ø [mm]	Weight [kg]	d_{infl} [mm]	h_{tot} [mm]	EC [mm]
1.000	150	1325	1155	110	905 – 1105	2230 – 2430	700 – 1200
2.100	150	1110	1150	165	800 – 1060	1880 – 2170	700 – 910
3.200	150	1360	1400	240	800 – 1060	2160 – 2420	700 – 910
4.600	150	1650	1700	370	800 – 1060	2455 – 2715	700 – 910
2.100	200	1090	1150	165	820 – 1080	1880 – 2170	700 – 910
3.200	200	1340	1400	240	820 – 1080	2160 – 2420	700 – 910
4.600	200	1630	1700	370	820 – 1080	2455 – 2715	700 – 910

Class D cover

Volume [litres]	Connection [DN]	h_E [mm]	ø [mm]	Weight [kg]	d_{infl} [mm]	h_{tot} [mm]	EC [mm]
1.000	150	1325	1155	110	930 – 1130	2255 – 2455	700 – 1200
2.100	150	1110	1150	165	825 – 1085	1905 – 2195	700 – 910
3.200	150	1360	1400	240	825 – 1085	2185 – 2445	700 – 910
4.600	150	1650	1700	370	825 – 1085	2480 – 2740	700 – 910
2.100	200	1090	1150	165	845 – 1105	1905 – 2195	700 – 910
3.200	200	1340	1400	240	845 – 1105	2185 – 2445	700 – 910
4.600	200	1630	1700	370	845 – 1105	2480 – 2740	700 – 910

Accessories

›› Page 22/23

Telescopic dome shaft
For light liquid separators and sampling shaft



Concrete cover
Class B and class D



Intermediate piece
400 mm and 1100 mm



Warning sensors
Type 1 – Type 3





Headquarters at Teningen near Freiburg

GRAF – solutions for global challenges

Pure, clean water is one of our most important resources. GRAF develops, manufactures and markets an extensive range of products for water management. GRAF provides solutions to global challenges, such as protecting watercourses or preventing flooding, with typical German quality.

Active in over 70 countries, with roots in Germany

GRAF products are exported to more than 70 countries around the world. Despite being highly active abroad, GRAF is also continually investing in its headquarters at Teningen. By constructing its raw materials competence centre in Herbolzheim, GRAF is expanding its German roots yet further.

Sustainably manufactured environmental products

GRAF environmental products are 100% recyclable and are designed for as long a life as possible. This ensures that fewer resources are used and the environmental impact is minimised. Right from the stage of developing its products, GRAF attaches great importance to sustainable product design. Through years of intensive research, GRAF has managed to replace 70% of the raw materials used in production with recycled products – without compromising product quality. This also improves the environmental performance of the GRAF product range. Sustainability is also hugely important during the manufacturing process. For example, the waste heat from production is used to heat the production and logistics building.

From pioneer to market leader

GRAF has over 50 years of experience in the development and manufacturing of high-quality plastic products. The company launched its first rainwater barrels in 1974 with the slogan “Rainwater is free” and soon started marketing other rainwater harvesting products too. GRAF’s innovative and user-friendly water management solutions have since made the company a leading system vendor in Europe.

Quality comes first

GRAF uses state-of-the-art production facilities. A high standard of quality in production is an essential starting point for unique products. End-to-end quality assurance and a high level of automation guarantee maximum reliability in production.



Partner to the specialist construction material trade

The GRAF brand represents the exclusive specialist trade range from Otto Graf GmbH.

It goes without saying that the company works in partnership with the trade to support various target groups, such as gardening/landscaping/construction companies and planners.

Support for the whole process – the GRAF project team

All the companies involved in a construction project need to work together directly and pragmatically – especially on large-scale undertakings. The GRAF project team provides such projects with valuable support, ranging from planning and assistance with official approvals to functional construction site logistics and on-site consultation.

99% supply capacity even during the busy season

GRAF products are exported around the globe. Intelligent logistics and sufficient stock levels ensure first-class availability and fast responses even during periods of high demand.

Benefits of working with GRAF

- Exclusive specialist trade range
- Clear sales strategy
- Training/support for sales staff in the trade
- Consistent brand management
- Comprehensive assistance with marketing



Teningen warehouse



Teningen logistics centre





Stormwater Management

For more information about our Rainwater Harvesting Solutions ask for our catalogue.

Wastewater Treatment Solutions

For more information about our Rainwater Harvesting Solutions ask for our catalogue.

RAINWATER HARVESTING



STORMWATER MANAGEMENT



WASTEWATER TREATMENT SOLUTIONS



SEPARATORS



GARDEN PRODUCTS &
MULTI-PURPOSE CONTAINERS



55 YEARS OF QUALITY AND INNOVATION
GRAF
55 YEARS OF EXPERIENCE

www.graf.info

Please note:
Information on all products and systems in this brochure is subject to changes and errors.

Pictures and photographs are approximate only.

The applicable technical documentation for the products shall control, which we will be happy to send you on request.

All offers, deliveries and services are subject to our general terms and conditions, which we will also be happy to send you.

Photo copyright: stock.adobe.com: © Milles Studio (page 4), Filipebvarela (page 5), Wendell Franks 2008 (page 14)

Otto Graf GmbH
Kunststofferzeugnisse
Carl-Zeiss-Straße 2 – 6
79331 Teningen, Germany

Tel.: +49 7641 589-0
Fax: +49 7641 589-50
mail@graf.info
www.graf.info

GRAF UK Ltd
T: +44 1608 661-500
info@grafuk.co.uk
www.graf-water.co.uk

GRAF Ireland
Environmental Ltd
T: +353 9351765
info@grafireland.ie
www.graf-water.ie

© Otto Graf GmbH/Item no. 950533 /EN