Water storage systems for firefighting

EN Edition 2020
Sales folder Firefighting water

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 South Baden

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 roots in South Baden yet further. We feel a strong sense of loyalty to Germany as our corporate site. Our long history means we have deep-rooted ties with the site and here in Teningen we have access to a highly skilled and motivated workforce who enable us to maintain our high quality standards.

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 our 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 manufacture 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.

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 the levels 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

Support over the whole process – the GRAF project team

ADVICE

- Solution-oriented systems for rainwater harvesting, retention, infiltration and firefighting water storage
- Design and specification of alternative solutions for your needs
- Short response times – only a few days from the initial calculations to the quotation

PLANNING

- Specifications/designed in compliance with regulations
- Preparation of stability and flooding proofs
- CAD drawings provided for site plans
- Assistance with the evaluation of soil permeability

LOGISTICS

- Fast delivery time – 99 % of the GRAF product range is permanently available
- Area-optimised, stackable products for low on-site storage requirements and low freight costs

ON SITE

- Advice on individual project solutions
- Talks with decision-makers
- Fast and friendly assistance with queries during installation

Firefighting water storage Carat XXL

Pre-assembled ex works on project-specific basis

Pre-attached lifting belts for unloading are included

The accessories included in the delivery are supplied ready for connection

With the web code directly to the required information:

www.graf.info

Web code G1312

- Installation instructions
- Submission texts
- Dimensional drawings

Fields of application

GRAF firefighting water tanks are the best solution when it comes to ensuring a quick supply of firefighting water.

They are used in almost all areas of application, such as industrial plants, temporary housing or wind turbines.

We are happy to advise you on the selection, application, dimensioning and installation of GRAF firefighting water tanks.


Petrol and service stations


Industrial plants


Joinery, timber storage facilities


Warehouses with flammable goods


Remote settlements e.g. agricultural enterprises, farms


Road tunnels or similar infrastructure


Gastronomy


Wind turbines


Temporary accommodation units (portacabins)

Planning and sizing

Design, material and installation of suction connections

The country-specific standards specify the requirements for the design, material and installation of aboveground and underground firefighting water suction connections. Firefighting water suction connections are used to draw extinguishing water from underground firefighting water tanks, wells, standing waters, firefighting water ponds, etc.

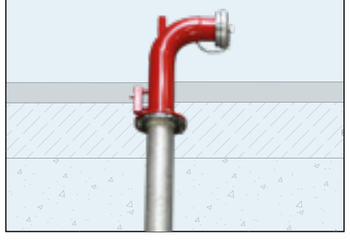
The fixed installation and the appropriate design of the area around the firefighting water suction connection ensure the quick and easy drawing-off of firefighting water when needed.

They are to be made either of ductile cast iron according to DIN EN 545 or steel according to DIN EN 10025. Fire-fighting water suction connections must be protected against weathering and water in the colour red RAL 3000 or bright red RAL 3024. Country-specific suction connections can be designed individually in accordance with national legislation.

The firefighting water suction connections in our range are differentiated as follows:

Version A

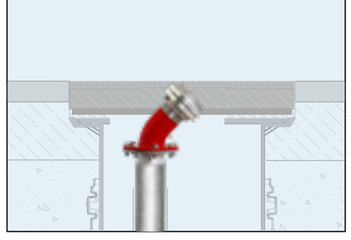
Firefighting water suction connection, aboveground



- Direct attachment of the sign at the suction connection:
  – Display of water volume at the drawing-off point
  – Clear marking of the suction connection

Version C

Firefighting water suction connection, underground



- Under traffic areas
- Protected connection

Version B (Not available in the GRAF range)

Firefighting water suction connection, aboveground

COUNTRY-SPECIFIC REGULATIONS APPLY

Artificially constructed firefighting water tanks

The requirements for artificially constructed covered firefighting water tanks with firefighting water drawing-off points are specified in the country-specific standards.
In addition to the requirements for the shape and design of the firefighting water tanks, this standard also describes the regulations for the firefighting water drawing-off point.

Important points can be:

- The firefighting water tank must be designed in such a way that the entire volume can be inspected and cleaned.
- The materials used must be water and weather resistant.
- It must be ensured that the firefighting water supply remains ice-free at all times.
- Every newly installed firefighting water tank has to be approved by representatives of the responsible authorities.

Fire brigade access road

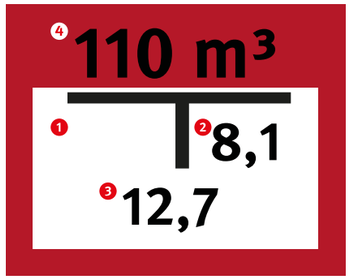
Access for the fire brigade should be provided to the drawing-off point from the public road. The access road must meet the country-specific requirements.

Guard rail

To avoid damage to the suction connection by vehicles, it is strongly recommended to install guard rail. Country specific requirements could apply.

Signage

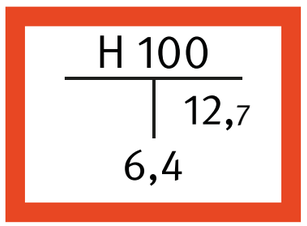
In many countries, the firefighting water tank must be permanently and visibly marked with a sign. Form and content of the sign are country specific and must be approved in advance.



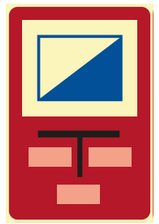
Germany

1. Distance (m) between sign and suction connection. Measured from the sign to the left.
2. Distance (m) between sign and suction connection. Measured from the sign to the right.
3. Distance (m) between sign and suction connection. Measured straight back from the sign.
4. Water volume of the firefighting water tank in cubic metres.

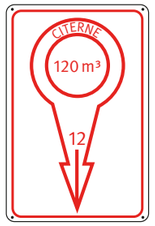
Examples of country-specific information signs for underground firefighting water tanks:



Spain



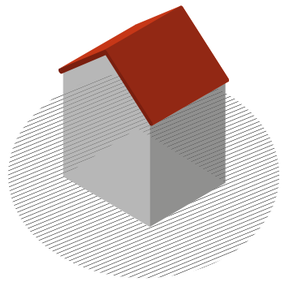
Poland



France

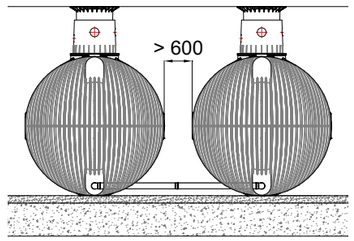
Positioning of the tanks

It is recommended to install the drawing-off point outside the danger zone (area of debris). The area of debris is the danger area that can be hit by falling parts of a building in the event of a fire. This is 1.5 times the height of the building.



Area of debris
(simplified illustration)

When connecting multiple containers, make sure that the distance between the containers is at least 600 mm.



System at a glance

Firefighting water storage

Carat XXL

The classic tank,
large volume
in a small place

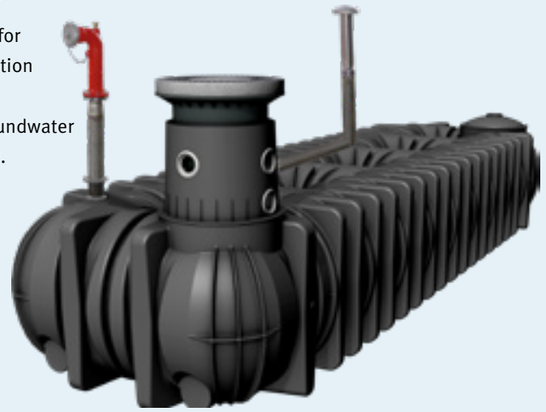
- Low volume loss
- 40 t vehicle loading
- Up to 122 m³ total volume

Carat XXL firefighting water tank	
Loading capacity:	
Pedestrian loading	•
Vehicle loading	•
Lorry-bearing	•
Nominal volume	122 m³
Useful volume	90 %
Groundwater stability	Up to the middle of the tank
Installation depth	3.30 – 4.05 m

Further information on page 12.

Platin XXL

Problem solver for
shallow installation
situations
due to high groundwater
or rocky subsoil.



- Low installation depth, less excavation
- Easy to inspect
- Good cleaning options

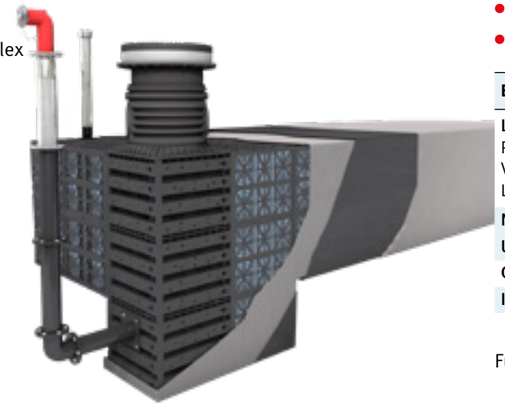
Platin XXL firefighting water tank	
Loading capacity:	
Pedestrian loading	•
Vehicle loading	•
Lorry-bearing	•[1]
Nominal volume	65 m³
Useful volume	80 %
Groundwater stability	Up to tank shoulder [2]
Installation depth	2.00 – 2.75 m

[1] In conjunction with a load distribution plate
[2] Not in conjunction with vehicle loading and lorry bearing

Further information on page 18.

EcoBloc Inspect flex

Special solution for
large volumes or complex
installation situations



- Extendable volume
- Also available as underground version
- Variable attachment of the EcoBlocs

EcoBloc Inspect flex firefighting water tank	
Loading capacity:	
Pedestrian loading	•
Vehicle loading	•
Lorry-bearing	•
Nominal volume	∞
Useful volume	80 – 93 %
Groundwater stability	up to top edge of infiltration ditch
Installation depth	max. 5 m

Further information on page 24.

Carat XXL
Firefighting water storage

Carat XXL firefighting water tank

Carat XXL firefighting water tank suitable for HGV loading up to 60 t*

- Complete system, including all accessories
- Dome shaft provides easy access into tank
- Individual tanks can be extended / connected to create large volumes
- Fill with mains water or rainwater
- Individual adaptation to ground level (earth covering/angle of slope)
- Lifting belts as unloading aids are fitted and supplied by the factory

Web code G1312

*With telescopic dome shaft HGV in conjunction with load distribution plate

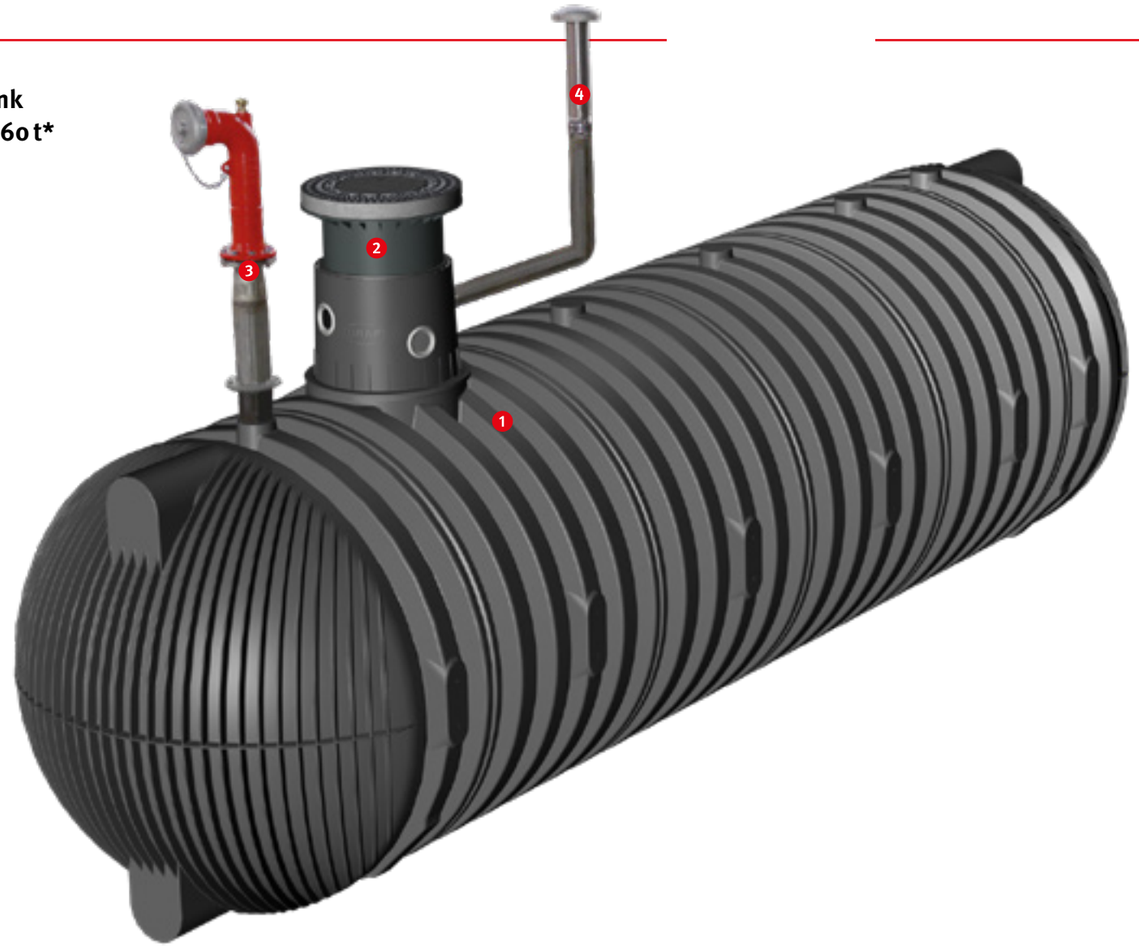
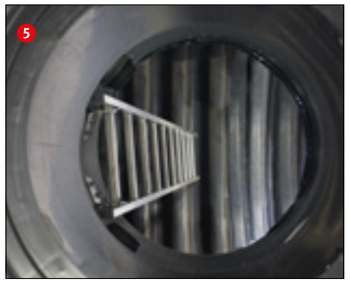


Illustration shows 46 000 l tank with telescopic dome shaft suitable for HGV loading. Please consider local requirements regarding useful water volume. Cover and compensating ring provided on site.

ZIM 1. Platz

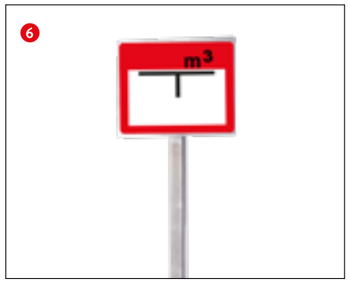
Scope of supply

1. Carat XXL firefighting water tank
2. Telescopic dome shaft HGV (Coverage to be provided on site)
3. Welded-in plastic suction pipe DN 125 (inner diameter: 125 mm) with flange, strainer made of stainless steel and anti-vortex plate, including suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel with flange, firefighting water suction connection with fixed coupling version-A
4. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
5. Aluminium access ladder including mounting kit for installation in tank dome
6. Holder with post made of stainless steel (without sign)



Fully accessible

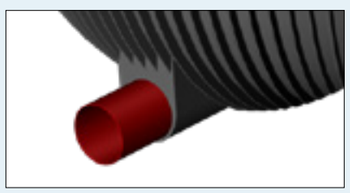
The GRAF Carat XXL firefighting water tank is completely accessible via an access ladder, so that any maintenance work can be carried out quickly and easily.



Holder with post and sign (Example: Germany)

Technical data

Max. earth covering:	1500 mm
Trafficability:	Max. axle load: 13.5 t Max. vehicle weight: 40 t
Trafficability in conjunction with load distribution plate:	Max. vehicle weight: 60 t
Installation window for trafficability:	800 – 1500 mm for cars 1000 – 1500 mm for HGVs
Groundwater stability:	up to the middle of the tank
Installation window for groundwater installation:	800 – 1500 mm
Connection:	5 x DN 150 (or 10 x DN 150*) (optionally up to DN 300), DN 200 connection on tank back

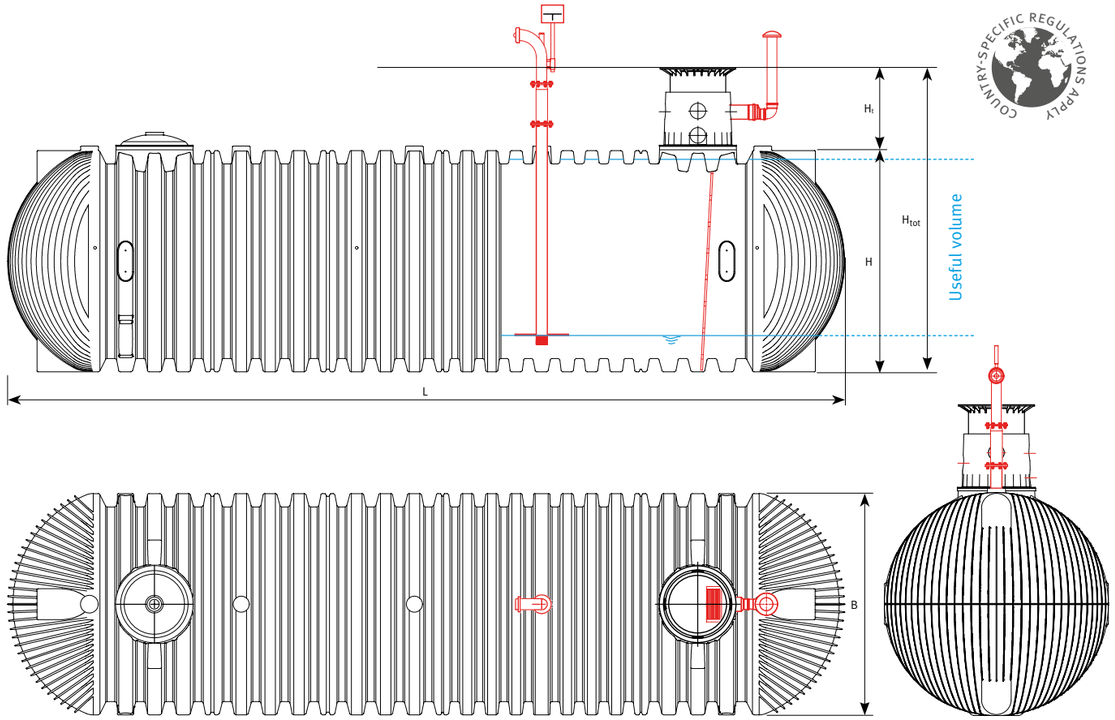


DN 250 connection fitting
To connect multiple Carat XXL firefighting water tanks (optionally up to DN 300)
Item no. 360023

Simple installation

No heavy equipment is required for transporting and moving plastic tanks. Usually a construction crane is sufficient, which in many cases is already on site. Deliveries are made using a common lorry.

Carat XXL firefighting water tank



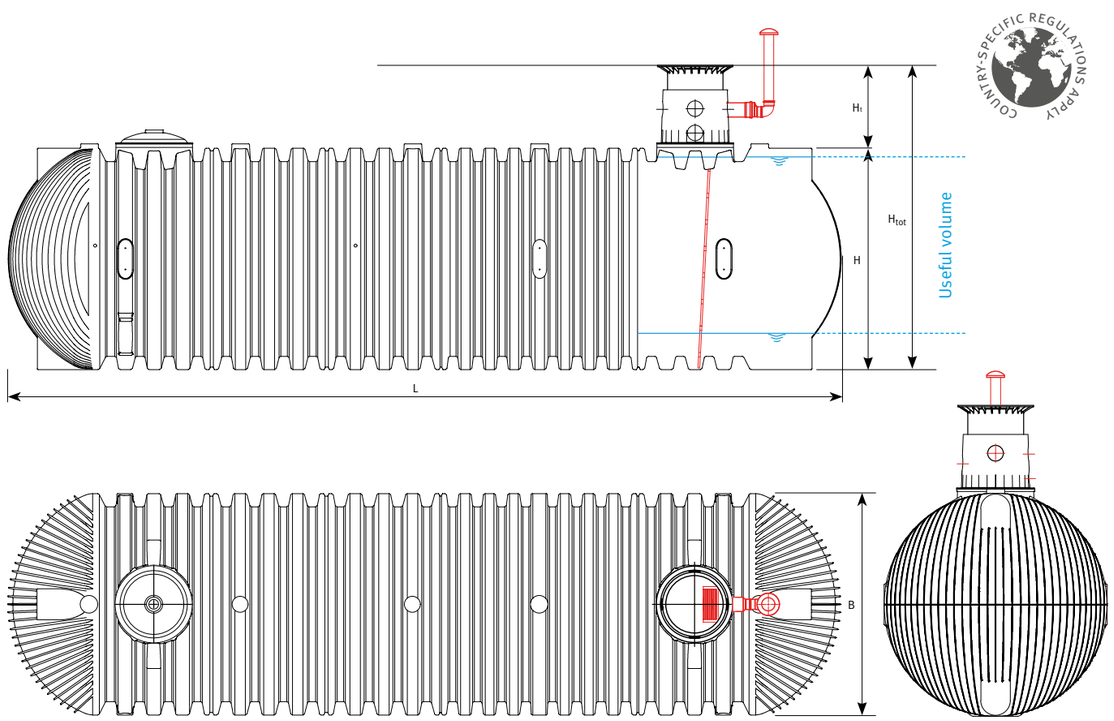
Carat XXL firefighting water tank

Nominal volume [litres]	Useful volume [litres]	Width W [mm]	Length L [mm]	Height H_{tot} [mm]	Height H [mm]	Height of tank dome Ht [mm]	Inner Ø of tank dome [mm]	Weight [kg]	Item no.
16.000	14.400	2500	4590	3160	2550	610	650	750	380050
22 000*	19 800	2500	6230	3160	2550	610	650	1000	380051
26 000*	23.400	2500	7200	3160	2550	610	650	1100	380052
32 000*	28 800	2500	8440	3160	2550	610	650	1375	380053
36.000*	32.400	2500	9410	3160	2550	610	650	1470	380054
42 000*	37 800	2500	10680	3160	2550	610	650	1765	380055
46.000*	41.400	2500	11650	3160	2550	610	650	1860	380056
52 000*	46 800	2500	12920	3160	2550	610	650	2150	380057
56.000*	50.400	2500	13890	3160	2550	610	650	2250	380058
62 000*	55 800	2500	15160	3160	2550	610	650	2540	380059
66.000*	59.400	2500	16130	3160	2550	610	650	2635	380060
72 000*	64 800	2500	17400	3160	2550	610	650	2930	380061
76.000*	68.400	2500	18370	3160	2550	610	650	3025	380062
82 000*	73 800	2500	19640	3160	2550	610	650	3315	380063
86.000*	77.400	2500	20610	3160	2550	610	650	3410	380064
92 000*	82 800	2500	21880	3160	2550	610	650	3705	380065
96.000*	86.400	2500	22850	3160	2550	610	650	3800	380066
102 000*	91 800	2500	24120	3160	2550	610	650	4090	380067
106.000*	95.400	2500	25090	3160	2550	610	650	4185	380068
112 000*	100 800	2500	26360	3160	2550	610	650	4480	380069
116.000*	104.400	2500	27330	3160	2550	610	650	4575	380070
122 000*	109 800	2500	28600	3160	2550	610	650	4870	380071

*available with a second tank dome as an option

Delivery time by arrangement. Delivery ex works – prices and shipping costs on request.
From a tank size of 62 000 l, the transportation has to be individually coordinated with GRAF.

Carat XXL extension tank



Carat XXL extension tank

Nominal volume [litres]	Useful volume [litres]	Width W [mm]	Length L [mm]	Height H_{tot} [mm]	Height H [mm]	Height of tank dome Ht [mm]	Inner Ø of tank dome [mm]	Weight [kg]	Item no.
16.000	14.400	2500	4590	3160	2550	610	650	750	380150
22 000*	19 800	2500	6230	3160	2550	610	650	1000	380151
26 000*	23.400	2500	7200	3160	2550	610	650	1100	380152
32 000*	28 800	2500	8440	3160	2550	610	650	1375	380153
36.000*	32.400	2500	9410	3160	2550	610	650	1470	380154
42 000*	37 800	2500	10680	3160	2550	610	650	1765	380155
46.000*	41.400	2500	11650	3160	2550	610	650	1860	380156
52 000*	46 800	2500	12920	3160	2550	610	650	2150	380157
56.000*	50.400	2500	13890	3160	2550	610	650	2250	380158
62 000*	55 800	2500	15160	3160	2550	610	650	2540	380159
66.000*	59.400	2500	16130	3160	2550	610	650	2635	380160
72 000*	64 800	2500	17400	3160	2550	610	650	2930	380161
76.000*	68.400	2500	18370	3160	2550	610	650	3025	380162
82 000*	73 800	2500	19640	3160	2550	610	650	3315	380163
86.000*	77.400	2500	20610	3160	2550	610	650	3410	380164
92 000*	82 800	2500	21880	3160	2550	610	650	3705	380165
96.000*	86.400	2500	22850	3160	2550	610	650	3800	380166
102 000*	91 800	2500	24120	3160	2550	610	650	4090	380167
106.000*	95.400	2500	25090	3160	2550	610	650	4185	380168
112 000*	100 800	2500	26360	3160	2550	610	650	4480	380169
116.000*	104.400	2500	27330	3160	2550	610	650	4575	380170
122 000*	109 800	2500	28600	3160	2550	610	650	4870	380171

*available with a second tank dome as an option

Delivery time by arrangement. Delivery ex works – prices and shipping costs on request.
From a tank size of 62 000 l, the transportation has to be individually coordinated with GRAF.

Carat XXL underground tank

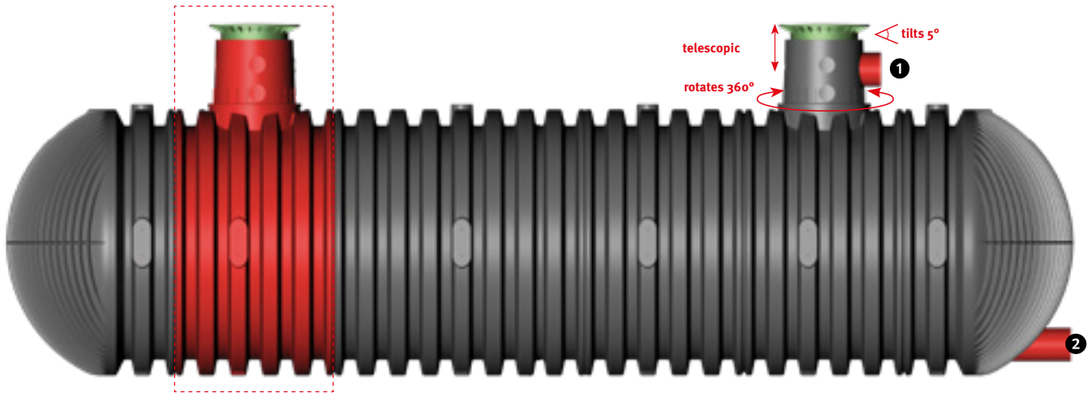
The perfect combination of flexibility and stability

Available with a second tank dome as an option

On request the Carat XXL can be fitted with an additional dome.

Lighter than concrete or steel

In spite of its large capacity, the Carat XXL has all the advantages of a plastic tank: its comparatively low weight reduces both logistics and installation costs.



Dome opening with stainless steel profile

Only from GRAF

An integrated V2A steel profile ensures a high degree of fitting accuracy and installation safety of the tank dome components.

HGV trafficable

60t

The GRAF Carat XXL underground tank can be driven over by vehicles of up to 40 t* with an earth covering of 1000 mm. In conjunction with a load distribution plate, the tank enables 60 t* vehicle loading with 1000 mm earth covering.

Flexible connection up to DN 300

The rotatable tank dome is easy to align with the connecting pipe. The telescopic tilting dome shaft makes it easy to align the tank with the level of the ground. Connecting faces up to DN 200 are already fitted as standard. If necessary, the Carat XXL can be fitted with connectors up to DN 300, either on the tank dome ❶ or on the face end ❷, e.g. for the DIN-compliant connection of multiple firefighting water tanks.

*Suitable for HGV loading with HGV traversable cover

Platin XXL
Firefighting water storage

Platin XXL firefighting water tank

Platin XXL firefighting water tank suitable for HGV loading up to 60 t*

- Complete system, including all accessories
- Dome shaft provides easy access into tank
- Individual tanks can be extended / connected to create large volumes
- Fill with mains water or rainwater
- Individual adaptation to ground level (earth covering/angle of slope)
- Incl. telescopic dome shaft HGV (Coverage to be provided on site)

Web code G1317

*With telescopic dome shaft HGV in conjunction with load distribution plate

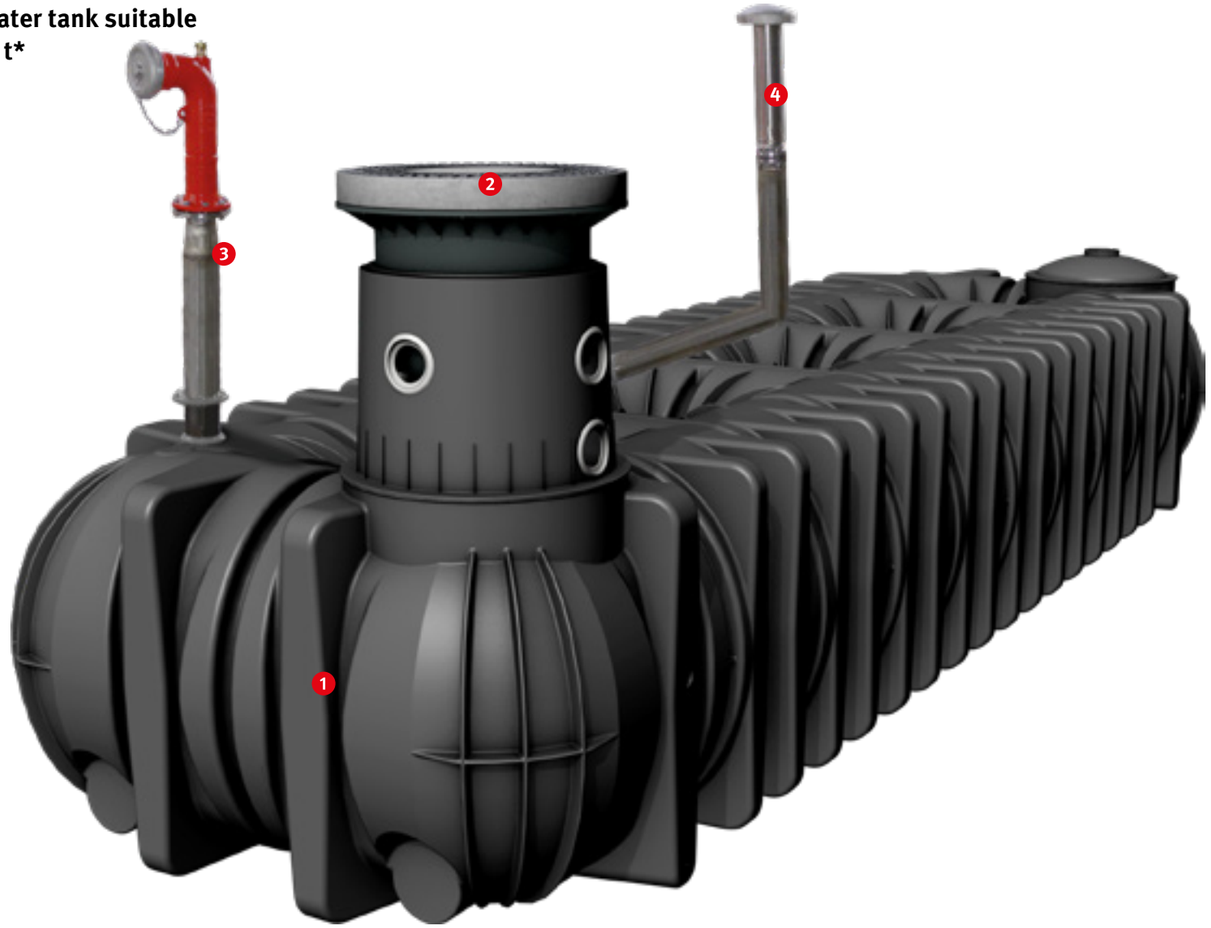
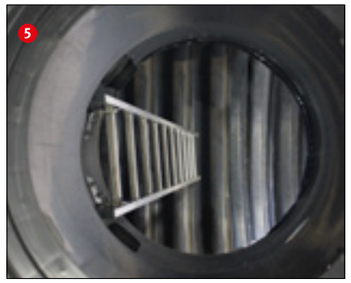


Illustration shows 15 000 l tank with telescopic dome shaft suitable for HGV loading. Cover and compensating ring to be provided on site.

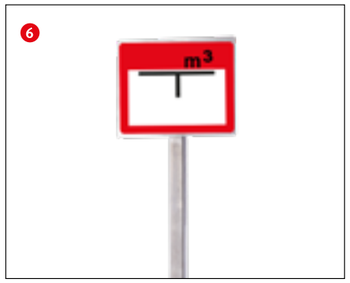
Scope of supply

1. Platin XXL firefighting water tank
2. Telescopic dome shaft HGV (Coverage to be provided on site)
3. Welded-in plastic suction pipe DN 125 (inner diameter: 125 mm) with flange, strainer made of stainless steel and anti-vortex plate, including suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel with flange, firefighting water suction connection with fixed coupling version-A
4. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
5. Aluminium access ladder including mounting kit for installation in tank dome
6. Holder with post made of stainless steel (without sign)



Fully accessible

The GRAF Platin XXL firefighting water tank is fully accessible via an access ladder, so that any maintenance work can be carried out quickly and easily.

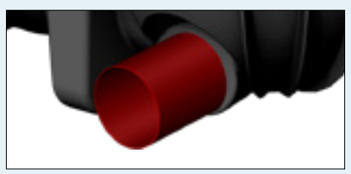


Holder with post and sign (Example: Germany)

Technical data

Max. earth covering:	1500 mm
Trafficability:	Max. axle load: 2.2 t Max. vehicle weight: 3.5 t
Trafficability in conjunction with load distribution plate:	Max. vehicle weight: 60 t
Installation window for trafficability:	750 – 1300 mm
Groundwater stability:	up to tank shoulder
Installation window for groundwater installation:	750 – 1500 mm
Connection:	5 x DN 150 (or 10 x DN 150*) (Optionally up to DN 300 on the tank dome)

* Available with a second tank dome as an option



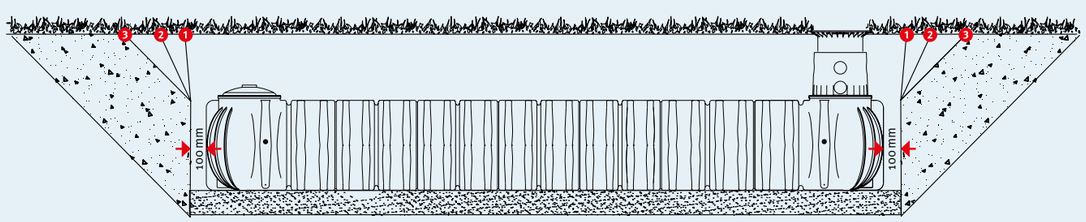
2x DN 200 connection fittings
For connecting multiple Platin XXL firefighting water tanks (optionally up to DN 300)
Item no. 360023

Ditch

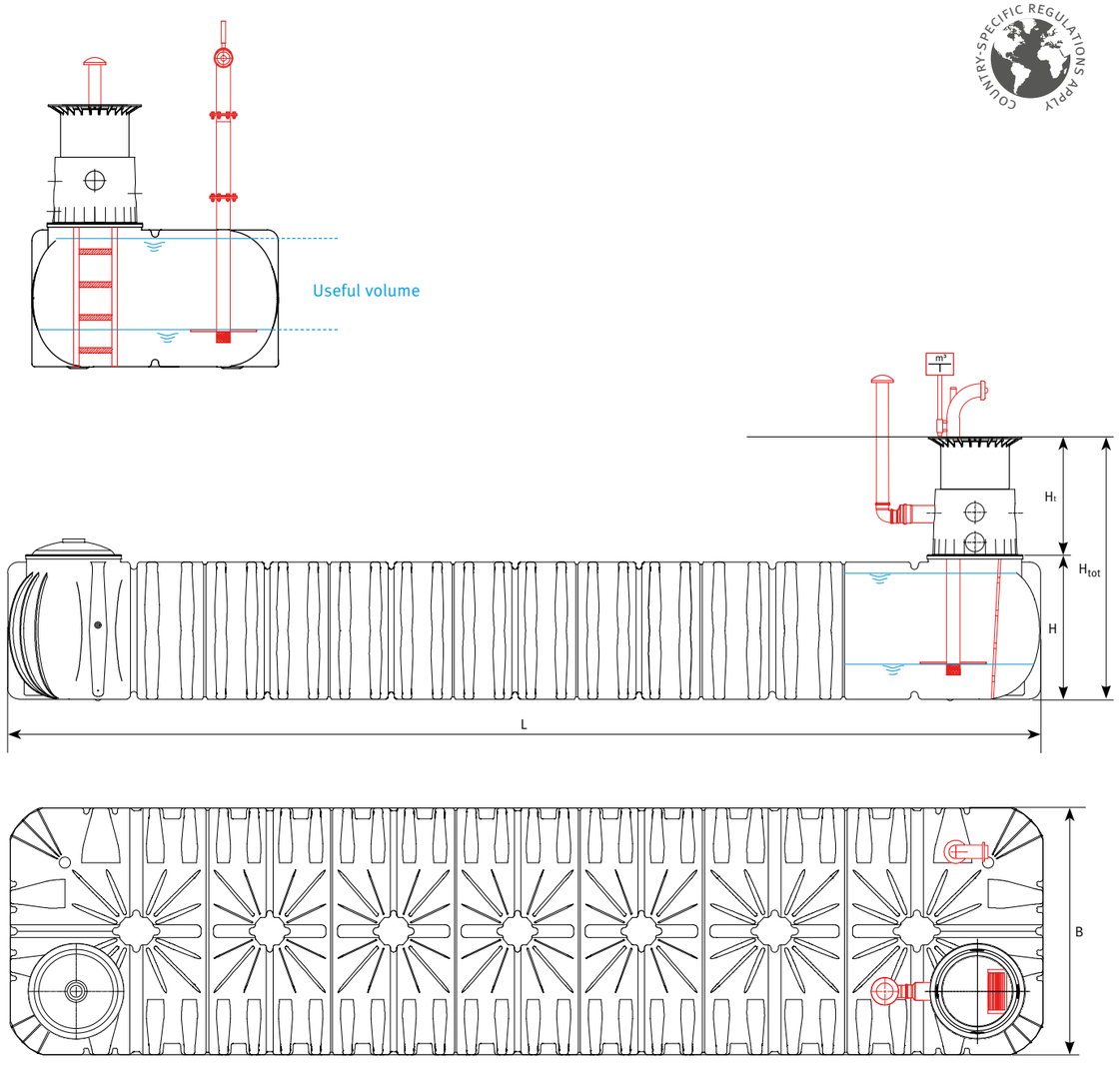
Due to the well thought-out statics of the Platin XXL, the ditch only has to be partially excaved with an embankment. This saves time and costs. The country-specific requirements apply.

Slope angle

1. 80° for rock
2. 60° for solid or semi-solid ground
3. 45° for non-cohesive ground



Platin XXL firefighting water tank



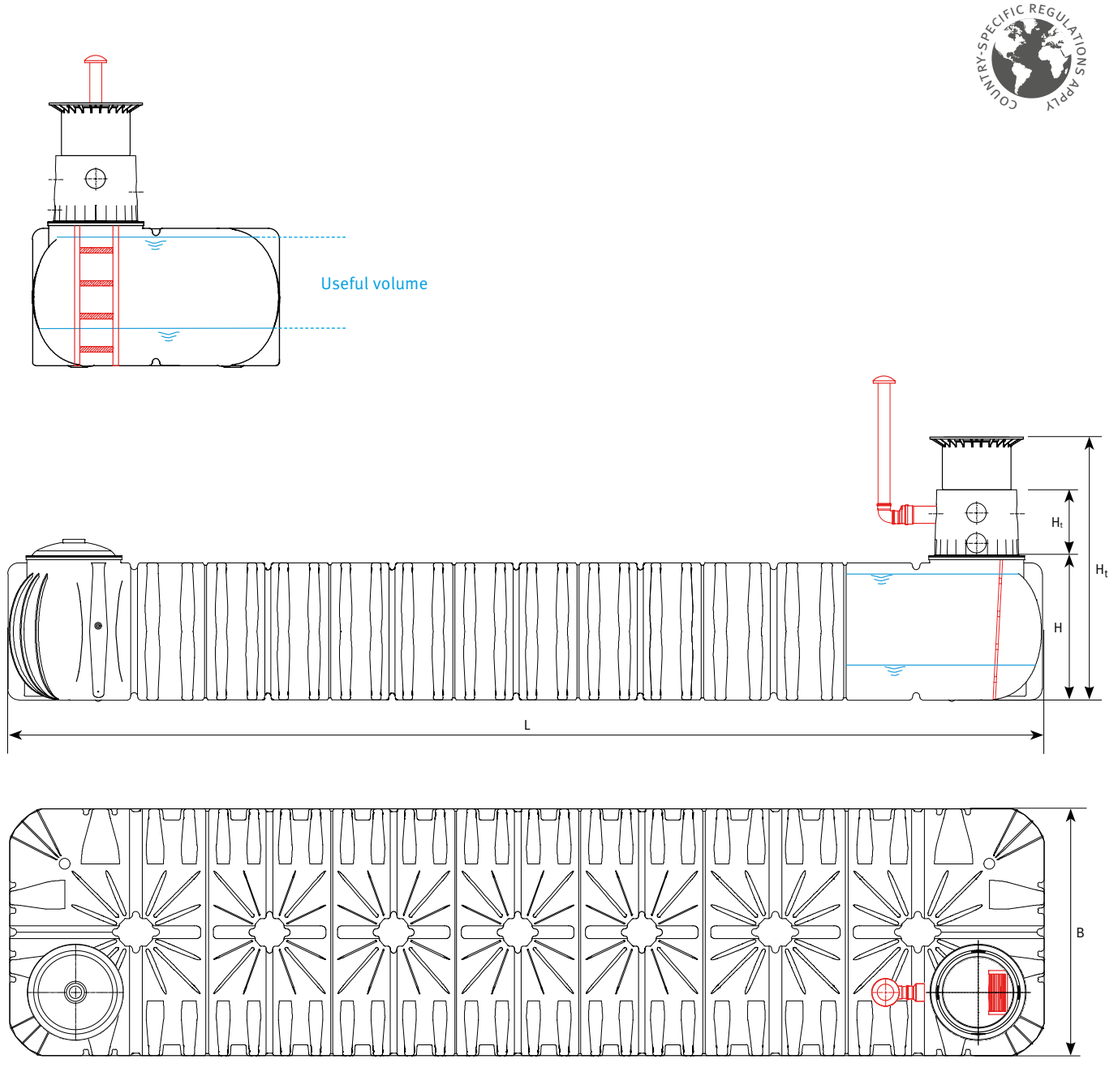
Platin XXL firefighting water tank

Nominal volume [litres]	Useful volume [litres]	Width W [mm]	Length L [mm]	Height H [mm]	Height Htot [mm]	Height of tank dome Ht [mm]	Inner Ø of tank dome [mm]	Weight [kg]	Item no.
20 000*	16.000	2250	9405	1250	1910	610	650	890	391400
25 000*	21.000	2250	11400	1250	1910	610	650	1140	391401
30 000*	25.000	2250	14265	1250	1910	610	650	1355	391402
35 000*	29.000	2250	16510	1250	1910	610	650	1570	391403
40 000*	32.000	2250	18430	1250	1910	610	650	1750	391404
45 000*	37.000	2250	21030	1250	1910	610	650	2000	391405
50 000*	40.000	2250	22935	1250	1910	610	650	2180	391406
55 000*	44.000	2250	25195	1250	1910	610	650	2395	391407
60 000*	49.000	2250	27795	1250	1910	610	650	2645	391408
65 000*	52.000	2250	29700	1250	1910	610	650	2825	391409

*available with a second tank dome as an option

From a tank size of 30 000 l, the transportation has to be individually coordinated with Graf.

Platin XXL extension tank



Platin XXL extension tank

Nominal volume [litres]	Useful volume [litres]	Width W [mm]	Length L [mm]	Height H [mm]	Height Htot [mm]	Height of tank dome Ht [mm]	Inner Ø of tank dome [mm]	Weight [kg]	Item no.
20 000*	16.000	2250	9405	1250	1910	610	650	890	391420
25 000*	21.000	2250	11400	1250	1910	610	650	1140	391421
30 000*	25.000	2250	14265	1250	1910	610	650	1355	391422
35 000*	29.000	2250	16510	1250	1910	610	650	1570	391423
40 000*	32.000	2250	18430	1250	1910	610	650	1750	391424
45 000*	37.000	2250	21030	1250	1910	610	650	2000	391425
50 000*	40.000	2250	22935	1250	1910	610	650	2180	391426
55 000*	44.000	2250	25195	1250	1910	610	650	2395	391427
60 000*	49.000	2250	27795	1250	1910	610	650	2645	391428
65 000*	52.000	2250	29700	1250	1910	610	650	2825	391429

*available with a second tank dome as an option

From a tank size of 30 000 l, the transportation has to be individually coordinated with Graf.

Platin XXL flat tank

Available with a second tank dome as an option

On request the Platin XXL can be fitted with an additional dome.

Lighter than concrete or steel

In spite of its large capacity, the Platin XXL has all the advantages of a plastic tank: its comparatively low weight reduces both logistics and installation costs.

Dome opening with stainless steel profile

An integrated V2A steel profile ensures a high degree of fitting accuracy and installation safety of the tank dome components.

HGV trafficable

In conjunction with a load distribution plate, the GRAF Platin XXL flat tank enables 60 t* vehicle loading with 1000 mm earth covering.

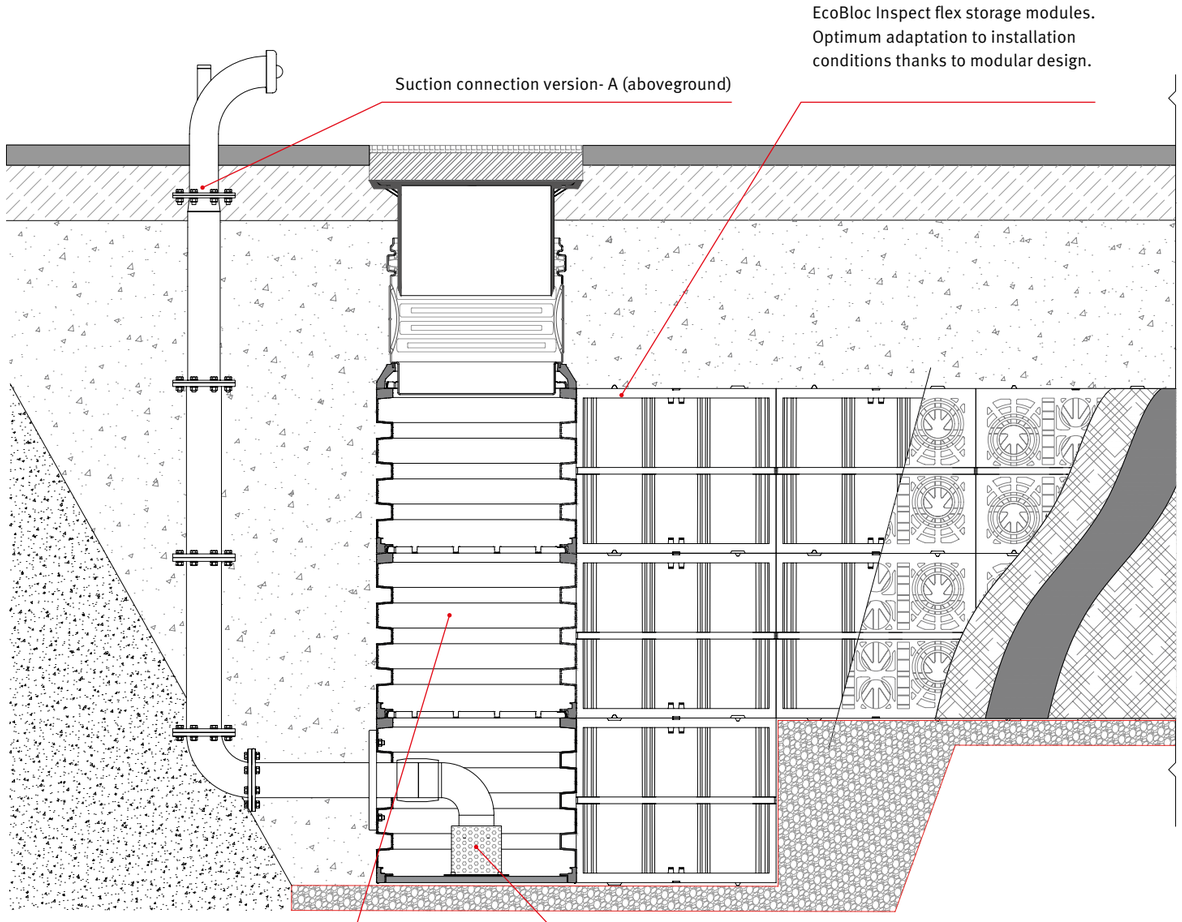
Flexible connection up to DN 300

The rotatable tank dome is easy to align with the connecting pipe. The telescopic/tilting telescopic dome shaft makes it easy to align the tank with the level of the ground. Connecting faces up to DN 150 are already fitted as standard. If necessary, the Platin XXL can be fitted with connectors up to DN 300 on the tank dome, or up to DN 200 on the face end.

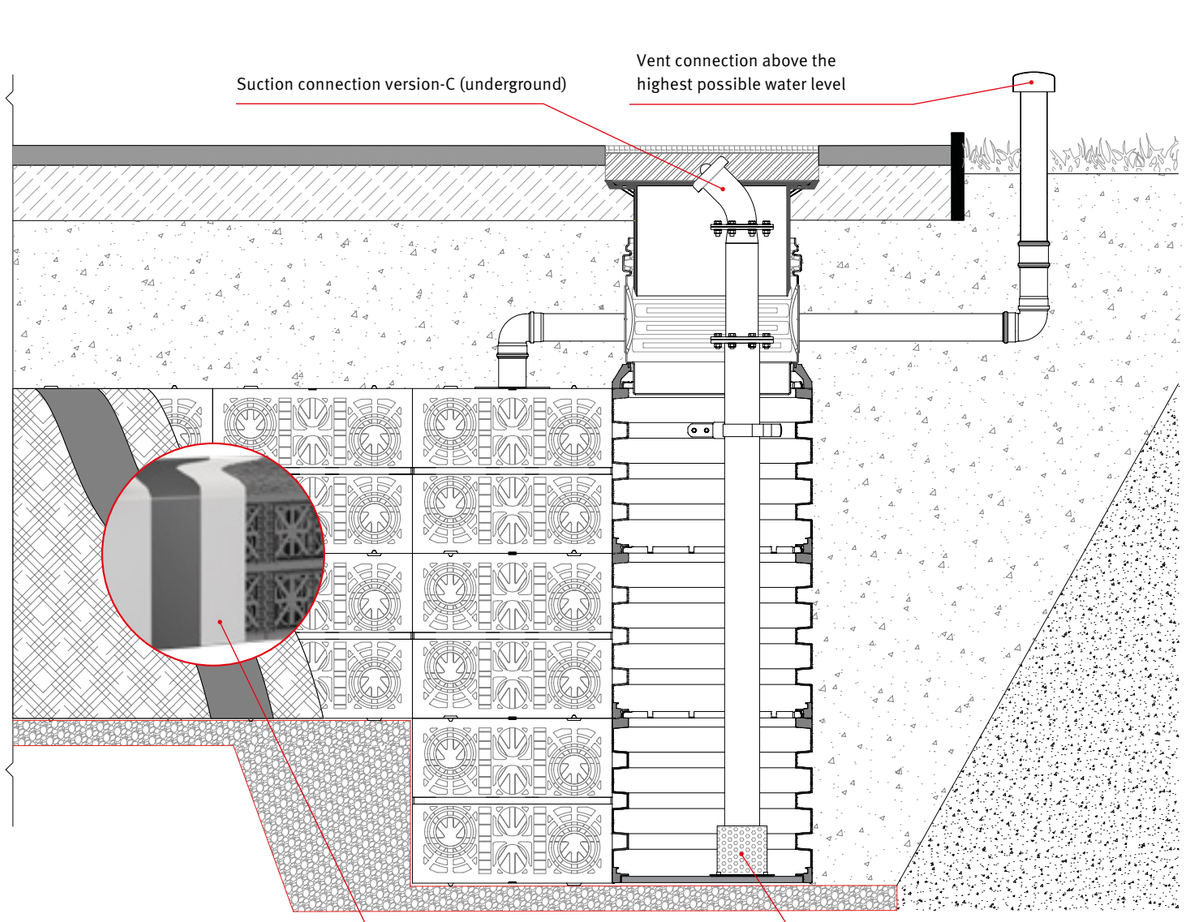
*Suitable for HGV loading with HGV traversable cover

EcoBloc Inspect flex
Firefighting water storage

Firefighting water storage
EcoBloc Inspect flex – aboveground



Firefighting water storage
EcoBloc Inspect flex – underground



Firefighting water storage
EcoBloc Inspect flex

Modular design

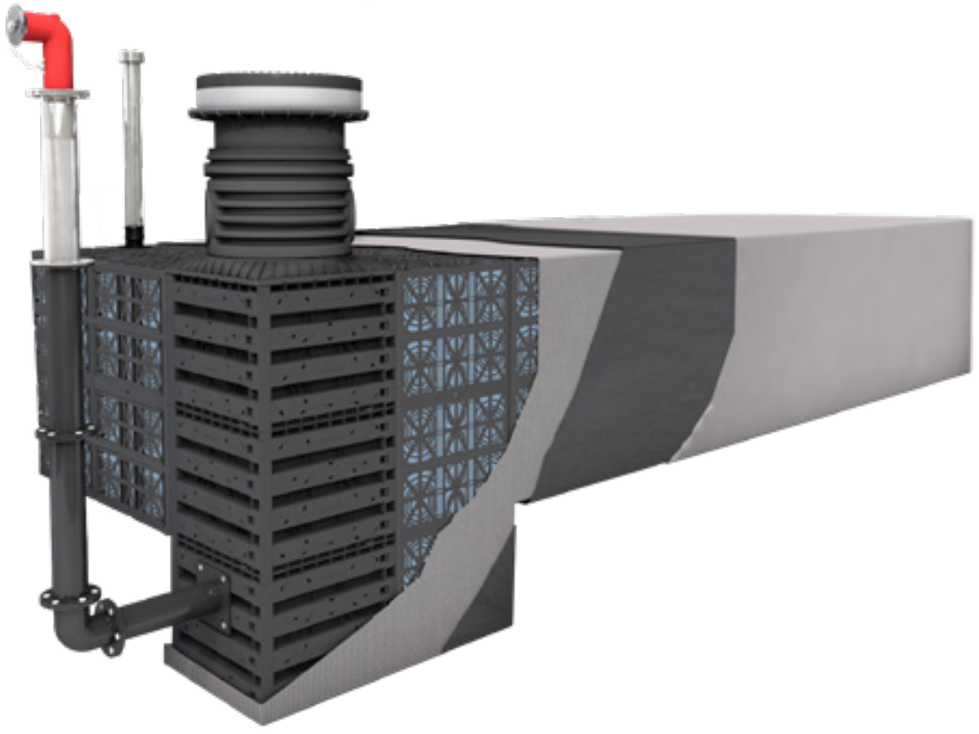
Optimum adaptation to complicated installation windows and existing infrastructures thanks to flexible installation patterns.

HGV trafficable up to 60 t

The GRAF EcoBloc Inspect flex enables 60 t vehicle loading from 800 mm earth covering.

Simple installation

GRAF EcoBloc Inspect flex modules are, in contrast to conventional firefighting water tanks, easy to transport and install.



Inspectable

The inspection channel of the EcoBloc allows effective inspection of the complete firefighting water system.

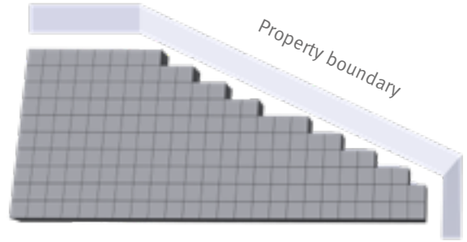
Can be cleaned at high pressure

GRAF EcoBloc Inspect flex infiltration ditches can easily be cleaned at high pressure.

Flexible solutions

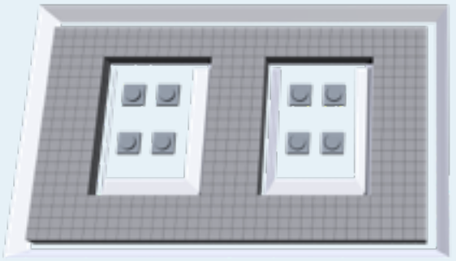
Buildable areas

The advantage of constructing a firefighting water retention system with storage modules is its optimal adaptability with regard to obstructions and load classes in the buildable area. Modular firefighting water tanks can be shaped to fit the respective buildable area, with any desired sizes and geometries. In contrast to conventional firefighting water tanks, larger fire water volumes can be realised.



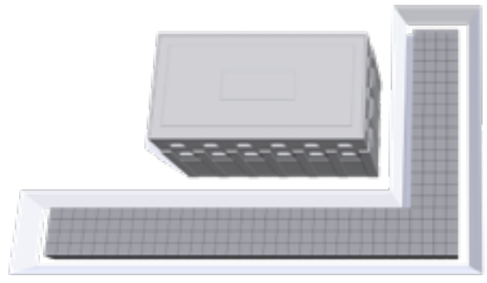
Foundations or similar

Firefighting water systems are often sited and designed after the actual building planning. They then have to be adapted to fit around planned foundations in the ground or existing structural elements.
Larger monolithic firefighting water tanks made of steel or concrete offer little flexibility. However, firefighting water systems made from storage modules can be built around underground foundations and infrastructure.



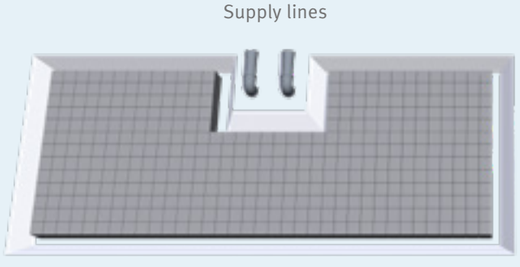
Angle geometries

With very short side lengths of 0.8 m, the square geometries of the EcoBloc family and the Vario shaft counterpart can be adapted individually to building edges and infrastructure. Most conventional monolithic tanks are circular and do not utilise the available space efficiently, especially at rectangular boundaries.



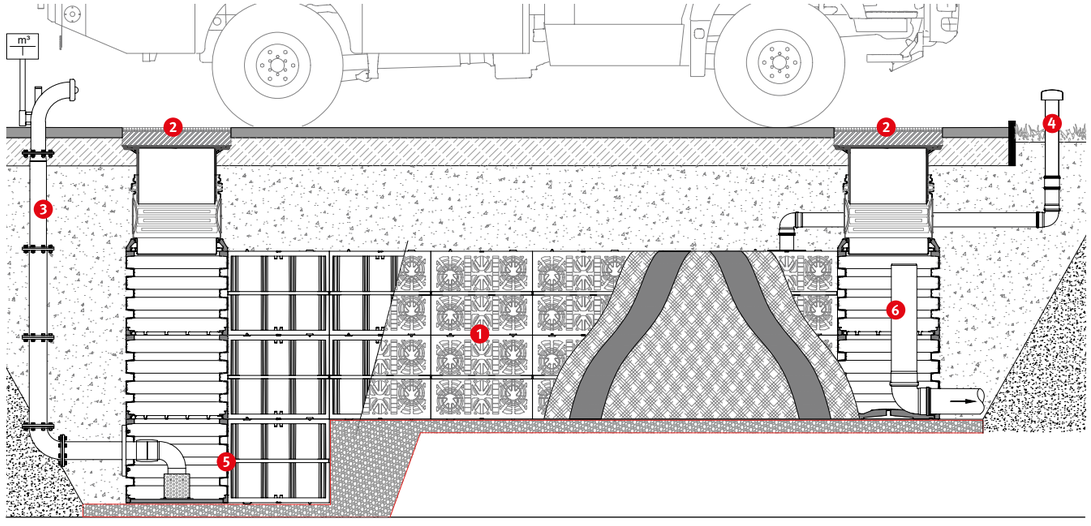
Going round existing infrastructure

Existing infrastructure, e.g. gas lines or sewage pipes, can greatly restrict the potential siting and sizing of firefighting water systems. The welded storage modules can be installed in any shape and size around the infrastructure and provide an optimal usable volume also in complex buildable areas.



Firefighting water storage

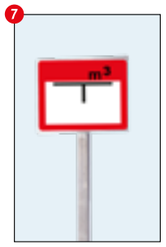
EcoBloc Inspect flex suction connection aboveground



- Aboveground firefighting water suction connection allows water to be drawn off quickly and easily when needed
- Suction point is easy to find, even in the dark and snow
- Fill with potable water or rainwater
- Length, width and height selectable for each specific project
- Large volumes possible thanks to modular design
- Logistical advantage over conventional firefighting water tanks, since no abnormal load vehicle is required for large volumes

Scope of supply:

1. EcoBloc Inspect flex
2. Telescopic dome shaft HGV (Coverage to be provided on site)
3. Suction pipe DN 125 (inner diameter: 125 mm), suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel, firefighting water suction connection aboveground (version-A) with fixed coupling version-A
4. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
5. Suction shaft incl. pump sump and strainer made from stainless steel
6. Vario 800 overfill protection
7. Holder with post made of stainless steel (without sign)



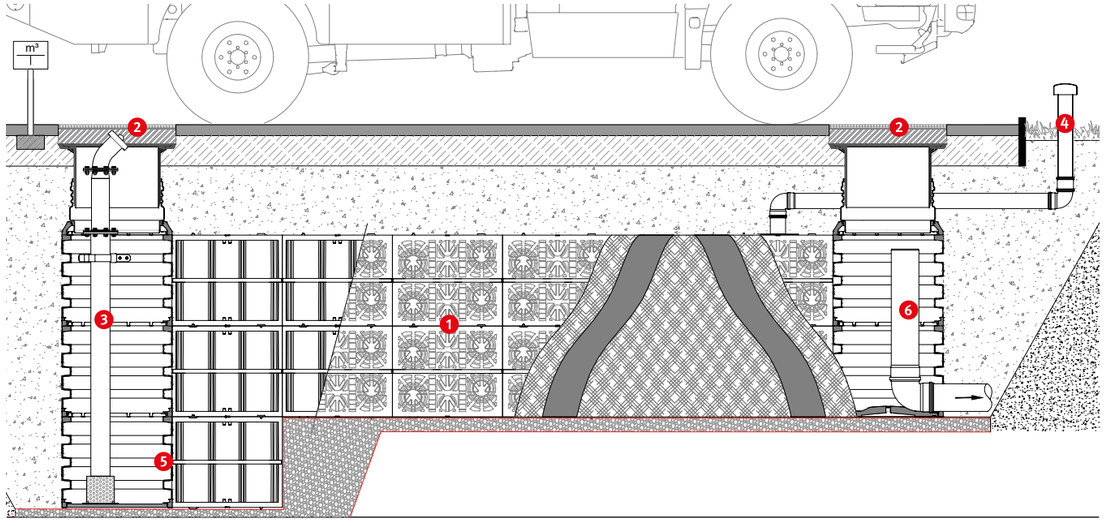
Technical data

Volume gross / net	As required
Suction connection	Aboveground, shape A
Groundwater stability	●
Max. vehicle weight:	60 t with telescopic dome shaft HGV
Min. earth covering:	800 mm
Max. earth covering:	2000 mm
Max. installation depth:	5000 mm
Max. number of layers:	6

For questions about items, please contact the project team

Firefighting water storage

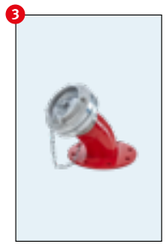
EcoBloc Inspect flex suction connection underground

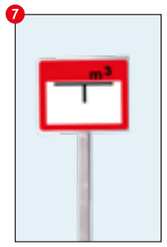


- Underground firefighting suction connection protected against weathering and collisions; therefore inexpensive to maintain
- Fill with potable water or rainwater
- Length, width and height selectable for each specific project
- Large volumes possible thanks to modular design
- Logistical advantage over conventional firefighting water tanks, since no abnormal load vehicle is required for large volumes

Scope of supply:

1. EcoBloc Inspect flex
2. Telescopic dome shaft HGV for on-site coverage
3. Suction pipe DN 125 (inner diameter: 125 mm), suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel, firefighting water suction connection underground with fixed coupling version-C
4. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
5. Suction shaft incl. pump sump and strainer made from stainless steel
6. Vario 800 overfill protection
7. Holder with post made of stainless steel (without sign)





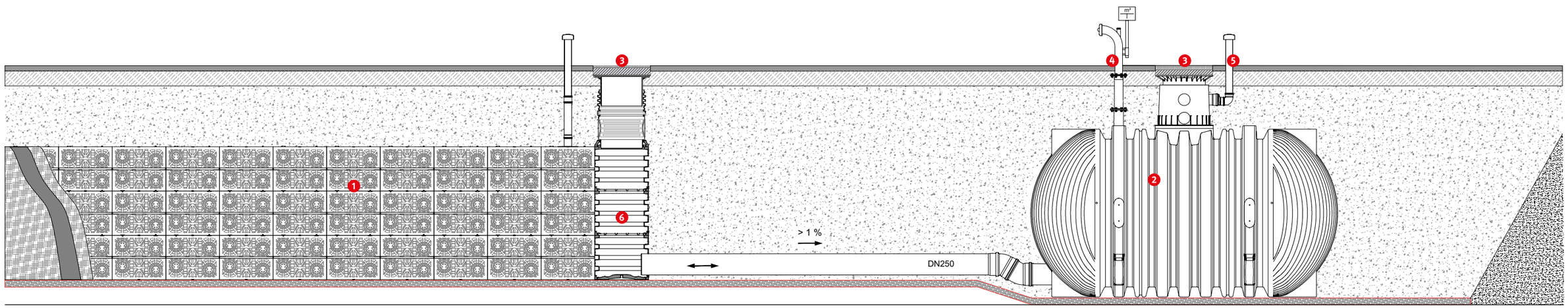
Technical data

Web code G1315

Volume gross / net	As required
Suction connection	Underground, version-A
Groundwater stability	●
Max. vehicle weight:	60 t with telescopic dome shaft HGV
Min. earth covering:	800 mm
Max. earth covering:	2000 mm
Max. installation depth:	5000 mm
Max. number of layers:	6

For questions about items, please contact the project team

Carat XXL firefighting water tank with EcoBloc Inspect flex external storage



- Combination of 2 proven systems: Drawing-off of firefighting water in the standardised Carat XXL and volume storage in the modular EcoBloc system
- Aboveground firefighting water suction connection allows water to be drawn off quickly and easily when needed
- Easy access to the Carat XXL tank via the dome shaft using the aluminium access ladder
- Large volumes thanks to individual expansion with EcoBloc Inspect flex
- Fill with potable water and rainwater
- Low procurement costs

Scope of supply:

1. EcoBloc Inspect flex
2. Carat XXL 16 000 l firefighting water tank
3. Telescopic dome shaft HGV (Coverage to be provided on site)
4. Welded-in plastic suction pipe DN 125 (inner diameter: 125 mm) with flange, strainer made of stainless steel and anti-vortex plate, including suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel with flange, firefighting water suction connection with fixed coupling version-A
5. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
6. Vario 800 overfill protection
7. Aluminium access ladder including mounting kit for installation in tank dome
8. Holder with post made of stainless steel (without sign)

Technical data

Volume gross / net	As required
Suction connection	Aboveground, version-A
Groundwater stability	●
Max. vehicle weight:	60 t with telescopic dome shaft HGV
Min. earth covering:	800 mm
Max. earth covering:	2000 mm
Max. installation depth:	5000 mm
Max. number of layers:	3

For questions about items, please contact the project team

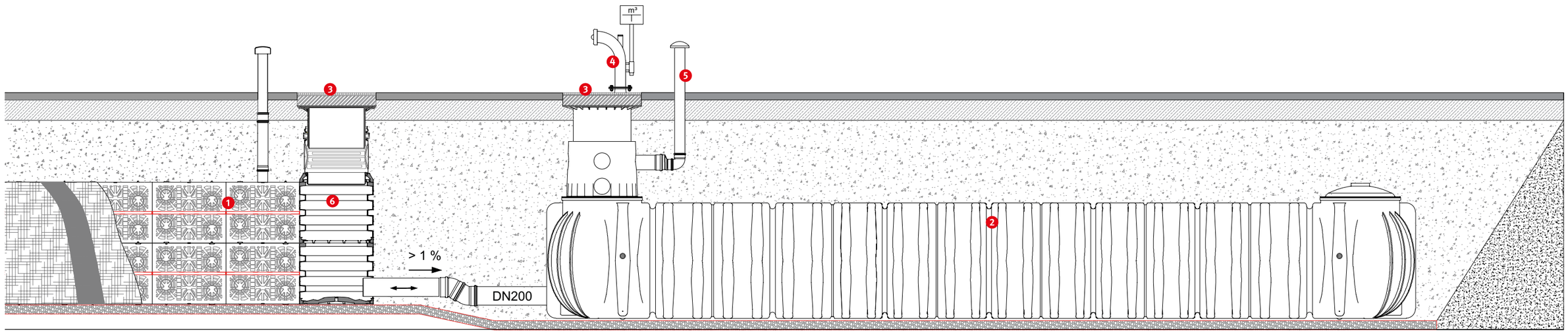
Technical data

Max. earth covering:	1500 mm
Trafficability:	Max. axle load: 13.5 t Max. vehicle weight: 40 t
Trafficability in conjunction with load distribution plate:	Max. vehicle weight: 60 t
Installation window for trafficability:	800 – 1500 mm for cars 1000 – 1500 mm for HGVs
Groundwater stability:	up to the middle of the tank
Installation window for groundwater installation:	800 – 1500 mm
Connection:	5 x DN 150 (or 10 x DN 150*) (optionally up to DN 300), DN 200 connection on tank back

DN 300 connection fitting
For connecting the Carat XXL firefighting water tank with EcoBloc Inspect flex infiltration ditch module.

Item no. 360023

Platin XXL firefighting water tank with EcoBloc Inspect flex external storage



- Combination of 2 proven systems: Drawing-off of firefighting water in the standardised Platin XXL and volume storage in the modular EcoBloc system
- Aboveground firefighting water suction connection allows water to be drawn off quickly and easily when needed
- Easy access to the Platin XXL tank via the dome shaft using the aluminium access ladder
- Large volumes thanks to individual expansion with EcoBloc Inspect flex
- Fill with potable water and rainwater
- Low procurement costs

Scope of supply:

1. EcoBloc Inspect flex
2. Platin XXL 20 000 l firefighting water tank
3. Telescopic dome shaft HGV (Coverage to be provided on site)
4. Welded-in plastic suction pipe DN 125 (inner diameter: 125 mm) with flange, strainer made of stainless steel and anti-vortex plate, including suction pipe extension DN 125 (inner diameter: 125 mm) made of stainless steel with flange, firefighting water suction connection with fixed coupling version-A
5. Venting pipe DN 100 (inner diameter: 100 mm) made of stainless steel with hood and insect-proof screen for vertical installation
6. Vario 800 overfill protection according to
7. Aluminium access ladder including mounting kit for installation in tank dome
8. Holder with post made of stainless steel (without sign)


7


8

Technical data

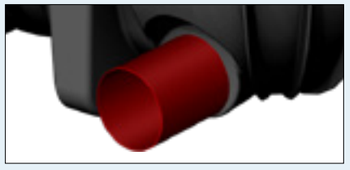
Volume gross / net	As required
Suction connection	Aboveground, shape A
Groundwater stability	●
Max. vehicle weight:	60 t with telescopic dome shaft HGV
Min. earth covering:	800 mm
Max. earth covering:	2000 mm
Max. installation depth:	5000 mm
Max. number of layers:	2

For questions about items, please contact the project team

Technical data

Max. earth covering:	1500 mm
Trafficability:	Max. axle load: 2.2 t Max. vehicle weight: 3.5 t
Trafficability in conjunction with load distribution plate:	Max. vehicle weight: 60 t
Installation window for trafficability:	750 – 1300 mm
Groundwater stability:	up to tank shoulder
Installation window for groundwater installation:	750 – 1500 mm
Connection:	5 x DN 150 (or 10 x DN 150*) (Optionally up to DN 300 on the tank dome)

* Available with a second tank dome as an option



2x DN 200 connection fittings
For connecting multiple Platin XXL firefighting water tanks (optionally up to DN 300)
Item no. 360023

Accessories

Coverings

Telescopic dome shaft HGV
For standard concrete rings, HGV-traversable, colour: black, concrete rings/covers provided on site
Item no. 371021

Telescopic ventilation shaft HGV DN 600
Incl. concrete / cast iron cover, support ring and dirt trap
Item no. 340148

Other covers

Telescopic dome shaft Cast
With cast iron cover, trafficable by cars, colour: black
Item no. 371020

Telescopic ventilation shaft Car DN 600
Incl. concrete / cast iron cover, support ring and dirt trap
Item no. 340149

Extension 300 mm
Earth covering can be increased by 300 mm
Item no. 371003

Extension 1000 mm
Earth covering can be increased by 1000 mm
Item no. 371015

Suction connections

Firefighting water suction connection, aboveground
Version-A
Item no. 934538

Firefighting water suction connection, underground
Version-C
Item no. 934803

V2A suction pipes

V2A suction pipe with flange DN 125
Length 450 mm
Item no. 934627

Length 750 mm
Item no. 934622

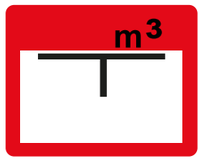
Length 1200 mm
Item no. 934537

General accessories

Holder for sign
With post made of stainless steel
Item no. 934542

Aluminium access ladder
incl. corresponding mounting kit for installing in the tank dome
Item no. 934840 6 rungs
Item no. 934543 10 rungs

Venting pipe
DN 100 made of stainless steel with hood and insect-proof screen for vertical installation
Item no. 934541



Sign
Example: Germany
Item no. 943354

Mounting kit for access ladder
Item no. 934544

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

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