

Product brochure

Rigofill® inspect



Underground storage/infiltration modules



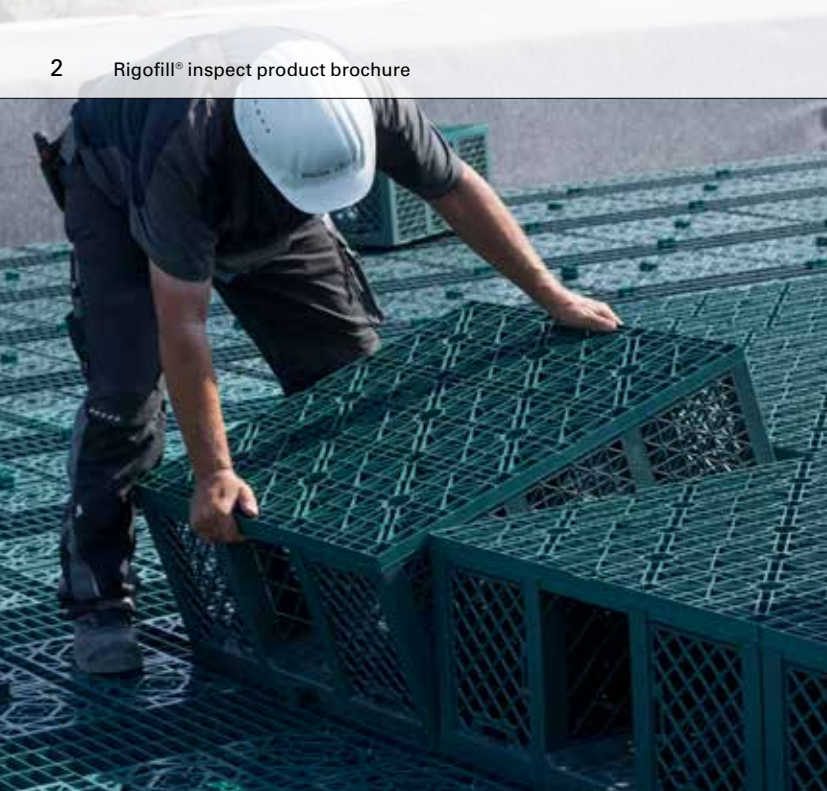


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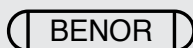
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Storing stormwater with storage/infiltration systems

Basic element for underground water storage facilities

Rigofill inspect are plastic tanks to be installed underground (storage/infiltration modules) in which water is collected and stored. Storage/infiltration systems temporarily collect stormwater and discharge it later. In addition to infiltration using underdrained swale systems, pipe swales, and gravel swales common in the past, increasingly more storage/infiltration modules are being built today.

The storage space of the storage/infiltration system consists of numerous Rigofill inspect modules which can be combined three-dimensionally to form large systems. The benefit of this method is that the void ratio is up to three times larger in these infiltration systems than in gravel swales, which saves space and excavation work. Rigofill inspect is a modular system which is characterised by high flexibility, rapid installation and a high level of user-friendliness.



Application – infiltration

Stormwater infiltration – giving back to nature

Large amounts of stormwater can reduce the performance of wastewater treatment systems. Infiltrating unpolluted stormwater nearby has therefore several benefits.

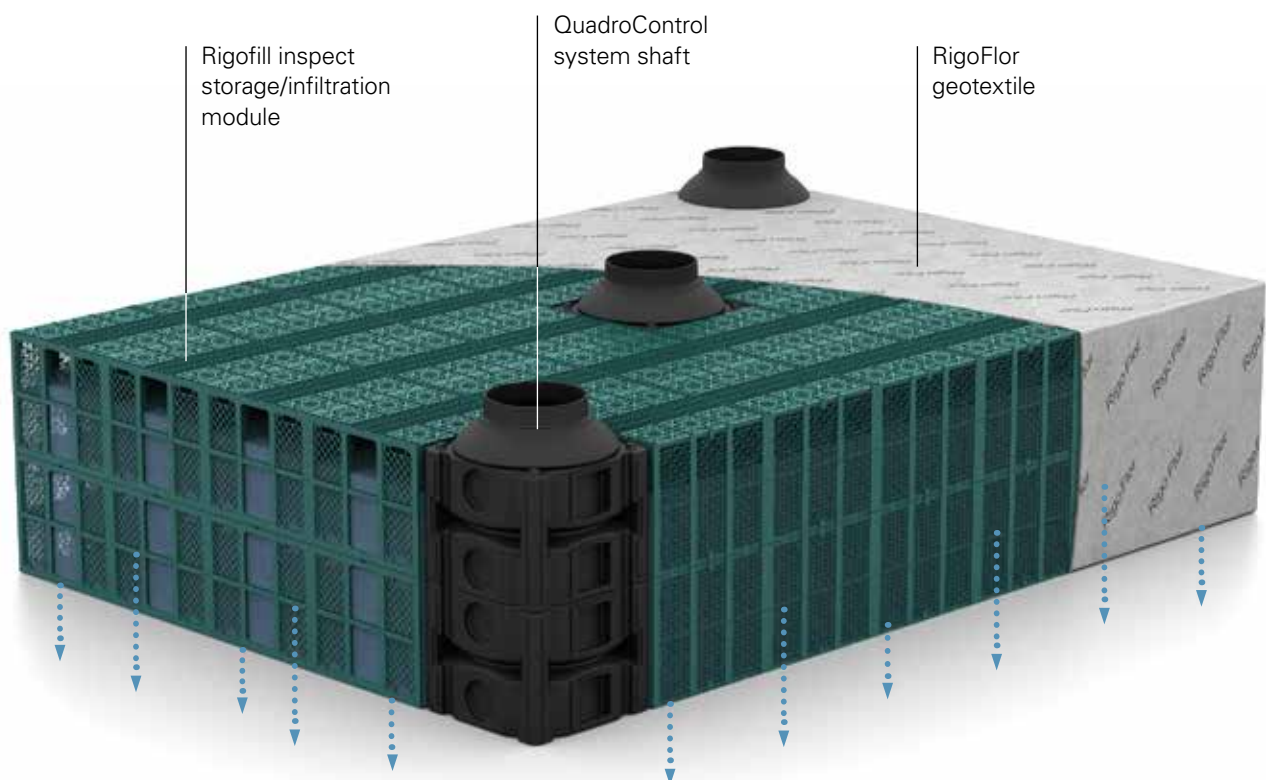
A constant growth in built-up areas and an increase in impervious surfaces prevent natural infiltration of stormwater into the soil. Special infiltration systems are used in order to discharge it to the water cycle.

In addition to infiltration using pipe swales, increasingly more storage/infiltration systems are being built. The benefit of this method is that the storage volume of the infiltration system is increased, and space and excavation are saved as compared to gravel swales.

Stormwater is thus returned to the natural water cycle and can contribute to producing new groundwater. Infiltration systems are subject to very high requirements. Consequently, they have become an important component of urban drainage.

Storage/infiltration systems considerably increase the underground storage volume. High-performance storage/infiltration systems can be installed even in confined spaces.

In particular in urban construction, no additional space is required and precious building ground is saved.



Application – retention

Retaining stormwater – instead of flooding

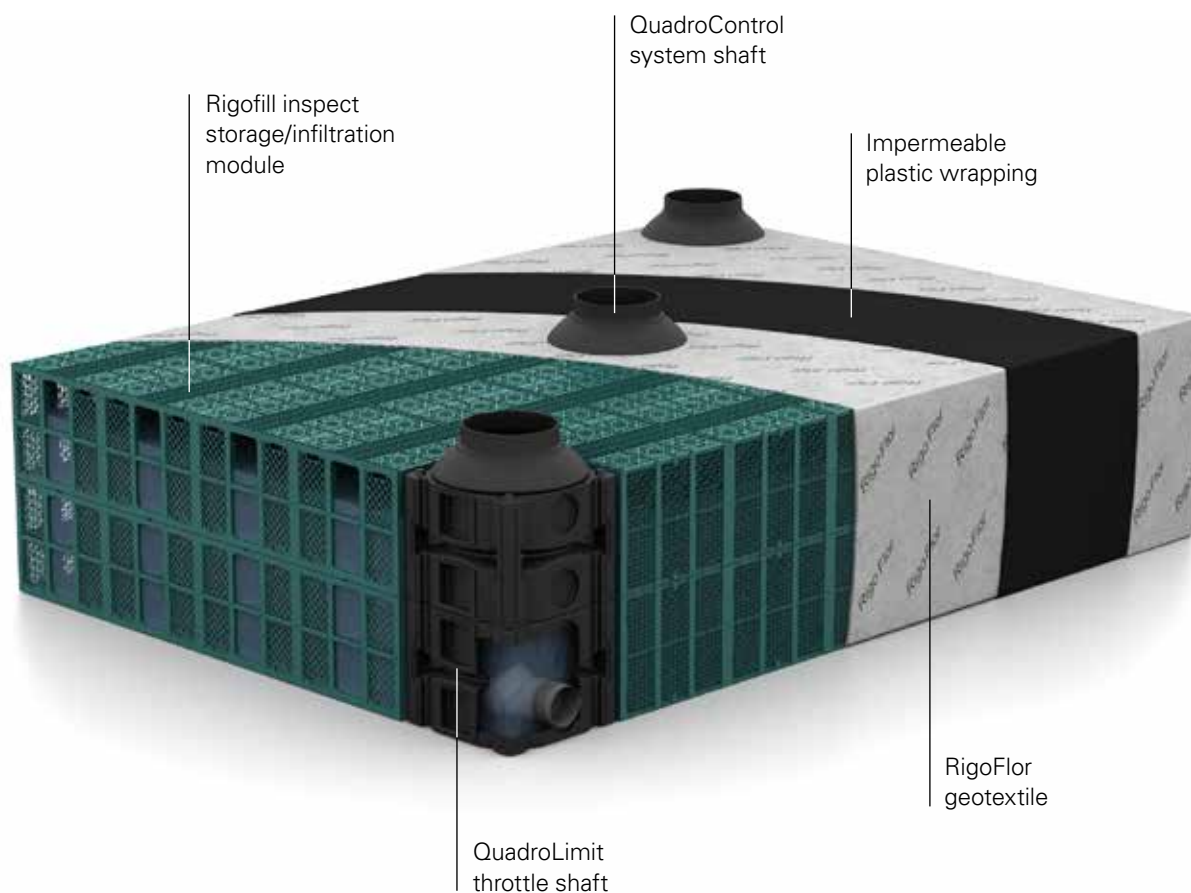
If subsoil conditions are unfavourable to infiltration, the goal is to retain the stormwater and ensure a retarded, time-lagged discharge. Exposure to impulsive stress can be eliminated or reduced in sewer networks, wastewater treatment systems and waterbodies.

Stormwater retention systems retard the infiltration of stormwater. They are comprised of a watertight retaining element, an inlet and a vortex outlet.

The stormwater distributes evenly in the system where it can be stored and is then discharged in a controlled manner through throttle shafts. If infiltration must be avoided or to prevent unintended discharge of groundwater or strata water (e.g., in case of contaminated soil), it is necessary to waterproof the retention system.

Stormwater runoff from impervious surfaces that cannot infiltrate naturally leads to peak loads in sewer systems.

Stormwater retention facilities collect stormwater in an underground storage tank and discharge it in a retarded manner but continuously. Their very short construction times make storage/infiltration systems an inexpensive alternative to conventional retention facilities such as retention channels or underground concrete tanks.



Application – harvesting/fire water storage

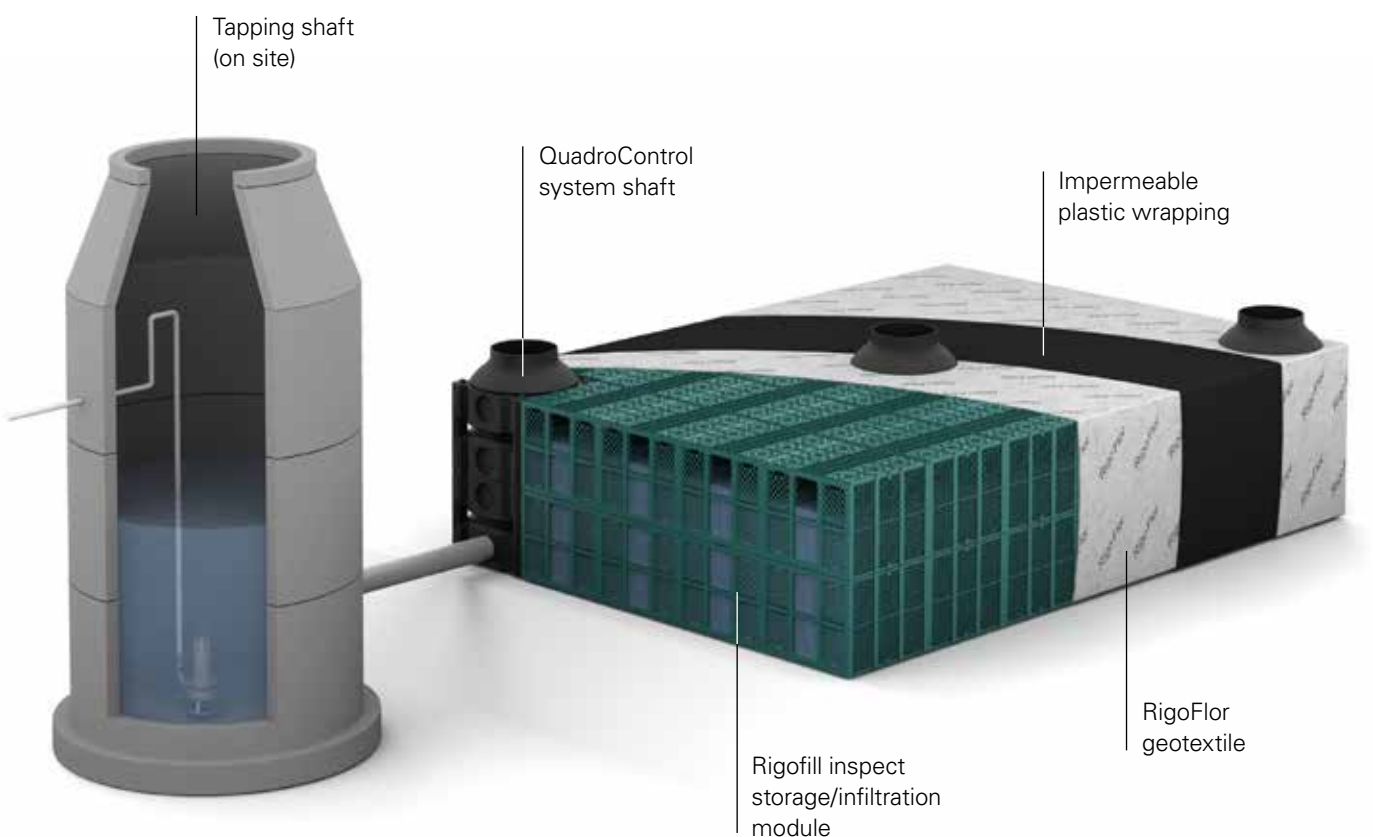
Harvesting stormwater – saving drinking water

Water – particularly drinking water – is a priceless resource which should be treated responsibly and used sparingly. It is therefore wise to collect, store and use stormwater if the water must not necessarily be suitable for drinking purposes, instead of allowing the water to infiltrate into the soil unused or diverting it into the sewer system.

There are many examples: irrigation for greens, car wash, use in toilets, etc. Water is diverted into a waterproof storage/infiltration system and can be supplied for use via a pumping system. The use of the Rigofill inspect system allows for finding solutions that fit project-specific requirements – even under the most difficult conditions such as very tight space, narrow conditions, low cover, high groundwater level, etc.

Stormwater harvesting systems provide water for different domestic and industrial water uses. They comprise a watertight retaining element, an inlet with upstream stormwater treatment system, a pump shaft and a system control.

Using Rigofill inspect for fire water storage also saves water, since system checks can be made in a filled state and water does not have to be pumped out as is the case with conventional concrete tanks.



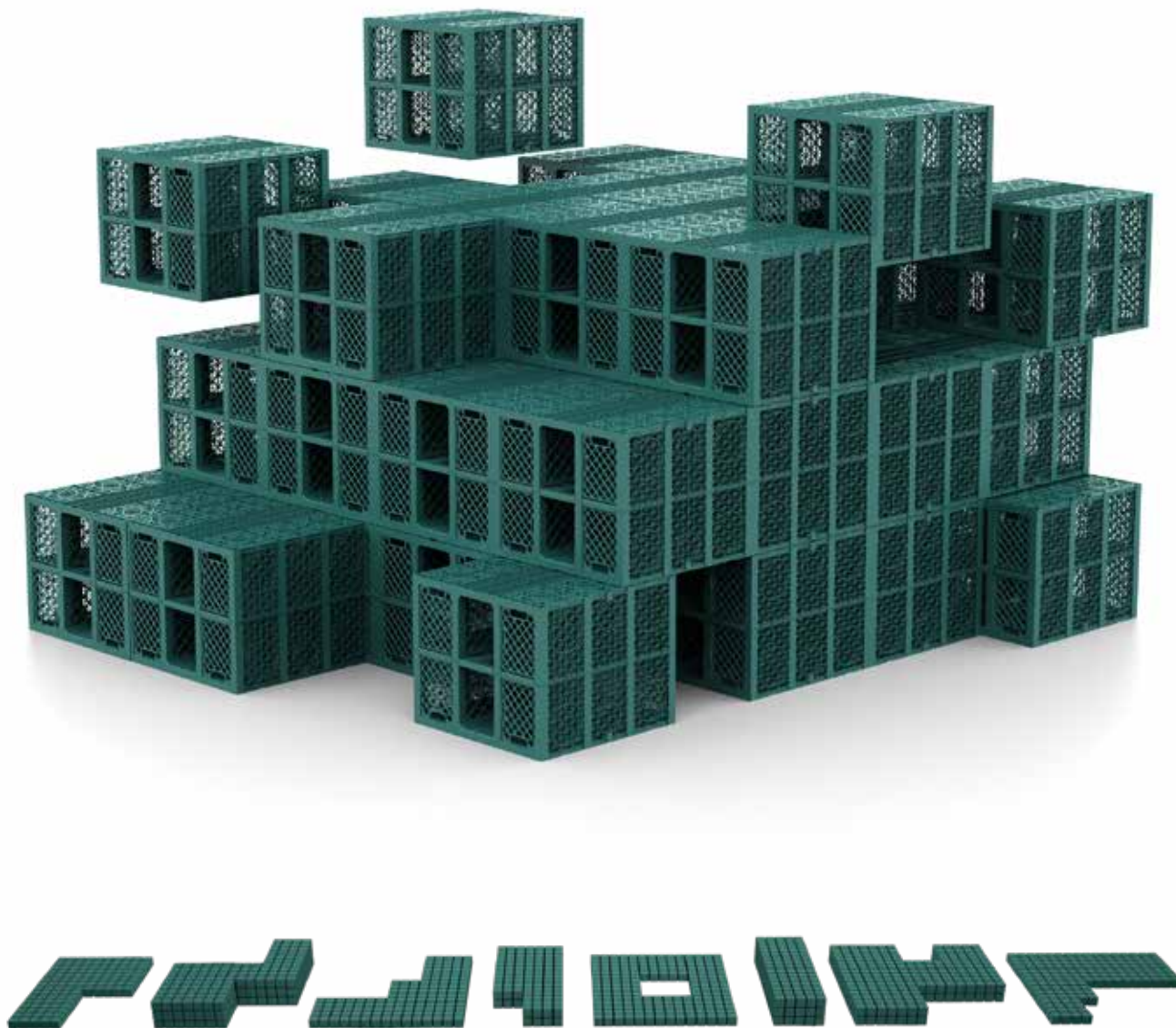
Product benefit – modular design

Individual system geometries due to modular design

The sizes (length and width) of Rigofill storage/infiltration systems can be freely designed with hardly any limitations. The square 800 mm block layout can be easily adapted to fit nearly any layout.

With heights of 660 mm (full block) and 350 mm (half block), systems can be built in various sizes to accommodate any single-layer or multiple-layer combination. Therefore, the system can be very easily adapted to on-site requirements.

Under high groundwater levels or low permeability of the native soil, for example, rather shallow-depth systems are to be preferred. For soils with good permeability, however, high and compact systems are favourable and may be built accordingly. The maximum space available is used.



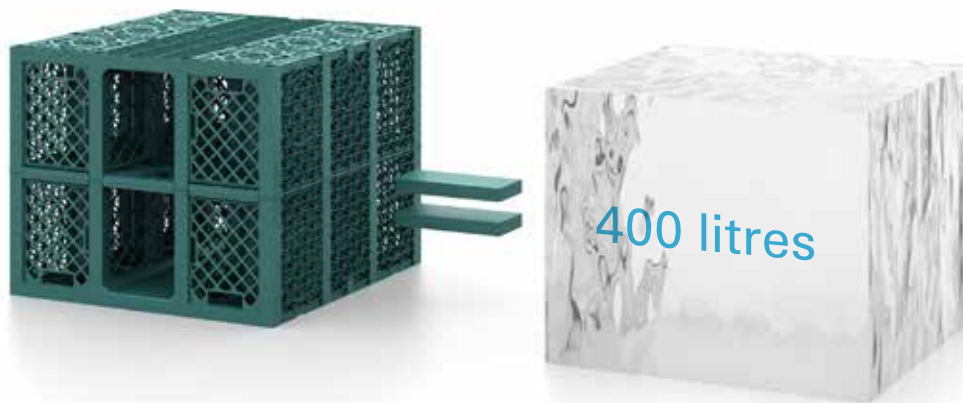
Product benefit – storage volume

Extremely high volume

The Rigofill inspect full block provides a storage capacity of 400 litres with a gross volume of 422 litres. With a storage volume of more than 95 %, it stores three times as much water as gravel swales. The half block has a height of 350 mm and is used if shallow systems are required, e.g., in case of high groundwater levels. With a gross volume of 224 litres, it offers a storage volume of 211 litres.

NB

With this extremely high storage volume of 95 %, Rigofill inspect earns the leading position on the market for storage/infiltration modules.



Storage/infiltration systems as compared to gravel swales

Pipe swales and gravel swales can only use approx. 30 % of their volume to store water. Therefore, three times the required water storage volume must be provided by excavation. This requires lots of space which is frequently not available in urban areas.

Rigofill inspect storage/infiltration modules save an enormous amount of space and excavation work. Thus, subsoil storage spaces for stormwater can be built in a very efficient and cost-saving way.

NB

Storage/infiltration systems considerably increase the storage space. High-performance storage/infiltration systems can be installed even in confined spaces.



Product benefit – easy installation

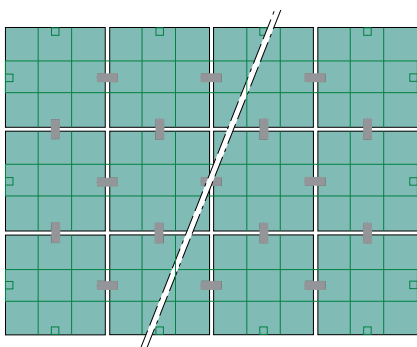
Easy construction site handling

The Rigofill inspect modules can be combined quickly and easily to create a complete system. The low weight allows this to be done by one person only. Each Rigofill inspect module offers connection points on all four sides. They must be placed in a row to form swale tunnels as intended.

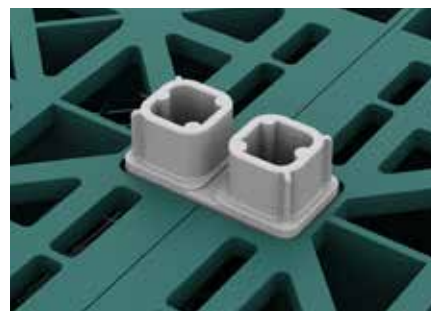


Connectors for full block / half block

Connectors allow for quick and secure installation – connectors allow the modules to be joined. Secure modules using connectors on the top surface of the module in the centre of each edge that is adjacent to another module.



Single-layer connector



Multiple-layer connector

End plate / adapter end plate

End plates are used to cover tunnel ends. Adapter end plates connect to pipes.

An end plate covers the inspection tunnel openings where no connections are to be made to a QuadroControl shaft.

Adapter end plates are used to directly connect to pipes. End plates and adapter end plates are simply snapped into place.



Product benefit – loading

Rigofill® inspect – suitable for traffic loads of up to SLW 60 / HGV 60

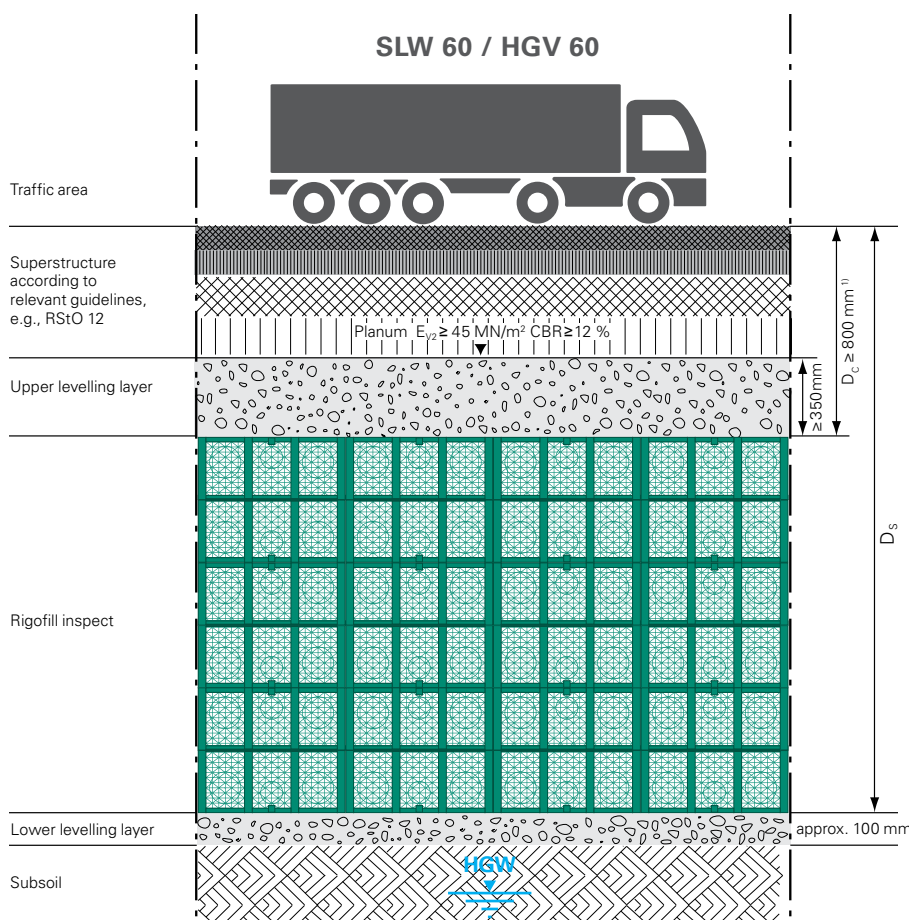
Storage/infiltration systems are subsoil structures and must have sufficient load-carrying capacity against impacting soil and traffic loads. Rigofill inspect storage/infiltration modules are extremely strong and have been designed with various applications in mind.

Installation under traffic areas

When installed under traffic areas, relevant national guidelines, e.g., RStO 12, must be observed. To build the planum for the road layout, an upper levelling layer must be provided. It should preferably be built as a gravel sub-base with a thickness of at least 350 mm, other materials usually result in larger covers. Generally, a uniform modulus of deformation $E_{v2} \geq 45 \text{ MN/m}^2$ must be proven on the planum.



Standard installation under a traffic area



The subsoil structures must have sufficient load-carrying capacity against impacting soil and traffic loads to ensure reliable stability. This is why Rigofill inspect is suitable for traffic loads of up to SLW 60 / HGV 60. With conventional installation parameters*, depths of cover of D_c 4 m and soil depths of D_s 6 m are possible for infiltration systems. A project-specific stability analysis can be prepared by FRÄNKISCHE.

* HGV 60, specific weight of soil 18 kN/m^3
mean soil temperature max. 23°C ,
soil depth 6 m, $\kappa = 0.3$, 4-layer

NB

For HGV over structure soil:
Rigofill inspect systems, which are used as watertight storage systems with impermeable plastic wrapping, have been designed for application above the highest groundwater level (HGW). Use in groundwater is possible under corresponding technical conditions after advice has been sought from FRÄNKISCHE. Please contact us!

¹⁾ Lower cover on request



Product benefit – inspection

CCTV inspection even when filled

Storage/infiltration systems are durable structures for urban drainage; they must work reliably for decades. Durability and reliability are essential requirements. The best way to inspect the state of a system using state-of-the-art technology is CCTV inspection. Thus, a storage/infiltration system can be inspected excellently for final acceptance or later. This provides safety for authorities, engineers, construction companies, customers, and operators.



Quadro®Control – the gateway to the system



Large opening for inserting the inspection camera
– 500 mm clear opening diameter



The inspection camera goes from QuadroControl directly into the inspection tunnel of Rigofill inspect

Thanks to QuadroControl, CCTV inspection technology can be brought to the spot. The generously dimensioned access diameter allows unobstructed access "from aboveground" and the use of a camera dolly.

Inspection tunnel

The unique design of the inspection tunnel allows for an unobstructed view of the entire storage volume and not only the inspection tunnel. For example, the load-bearing elements, the condition of the geotextile and the entire soil area can be visualised.

Rigofill inspect offers excellent opportunities to inspect the interior of a system at any time.



Inspection tunnel



Large openings in the side wall of the tunnel

Camera inspection and flushing



The inspection tunnels enable a complete camera inspection and flushing of the system, if necessary. To achieve this, the inspection tunnels of each row must be in line.

The tunnels should run parallel to the longer system side, which minimises the inspection effort and the number of inspection shafts.

Certified CCTV accessibility



Rigofill and QuadroControl have been designed for the use of modern CCTV inspection technology. A rotatable and height-adjustable camera head, for example, allows for the best possible view of the lateral soil, a controllable carriage allows for a constantly centred position, and high-performance optics and lighting allow for a perfect view.



The inspectability of Rigofill inspect and QuadroControl systems has been tested and confirmed by leading manufacturers of pipe CCTV inspection technology!

Recommended: tender invitation for final acceptance inspection



Final acceptance of sewers using camera inspection has long since become a matter of course in sewer construction. The final acceptance inspection is also important in the construction of storage/infiltration systems! Planning engineers should absolutely include this in their tender documents. For instructions on the professional system configuration of the CCTV inspection technology, please refer to www.fraenkische.com

**Nothing remains hidden:
The camera provides an excellent view of the storage/infiltration system**



Tender texts
www.fraenkische.com

Quadro® Control – system shaft

The shaft in the modular block type structure

QuadroControl is an inspection shaft¹⁾ that can be incorporated into Rigofill inspect storage/infiltration systems. It can be installed at any point in the layout. QuadroControl provides convenient access to the inspection tunnel from aboveground (500 mm clear opening diameter). High-performance inspection and flushing equipment can easily be inserted into the inspection tunnel. QuadroControl consists of individual shaft bodies, which are stacked on top of one another according to the number of layers of the storage/infiltration system.

Each shaft comprises an inlet side with pipe connections DN 200 and three tunnel sides which have access openings for the inspection tunnel. Required pipe and tunnel connections are cut out on site according to the design specifications. The shaft cone is an adapter to the extension pipe. The length of the extension pipe is chosen depending on the installation depth. If necessary, it may also be equipped with a rotatable inlet connection (DN 200 to DN 300).

Project-specific solutions are available on request.

¹⁾ Volume can be taken into account when dimensioning the system volume.

SHAFT COVER
(TO BE SUPPLIED ON SITE)

SHAFT COVER
(TO BE SUPPLIED ON SITE)

CONCRETE SUPPORT RING
(TO BE SUPPLIED ON SITE)

SEDIMENT TRAP

DOM SEALING RING

EXTENSION PIPE

SHAFT CONE

QUADROCONTROL
BASE BODY

QUADROCONTROL
BASE BODY

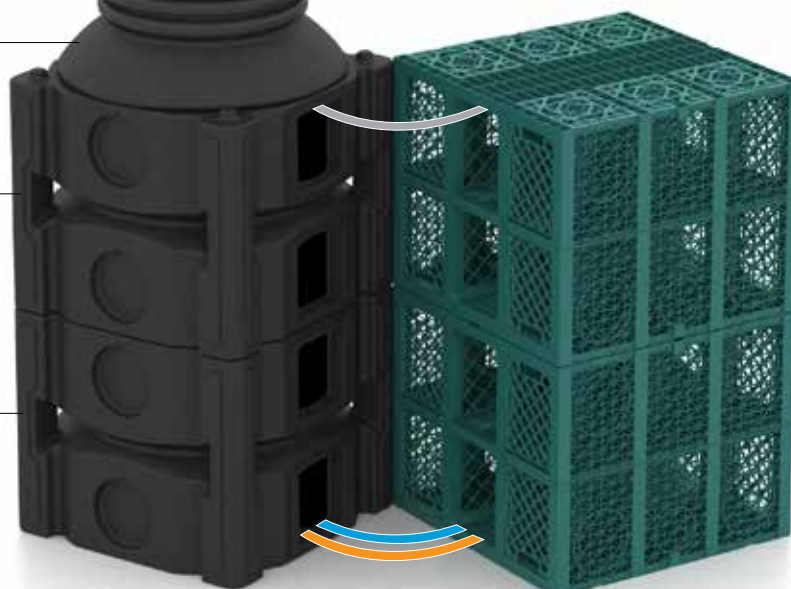


Approved by the German Institute for Building Technology (Deutsches Institut für Bautechnik – DIBt) in the context of the application of Rigofill inspect.

NB

QuadroControl inlets and outlets are cut out on site.

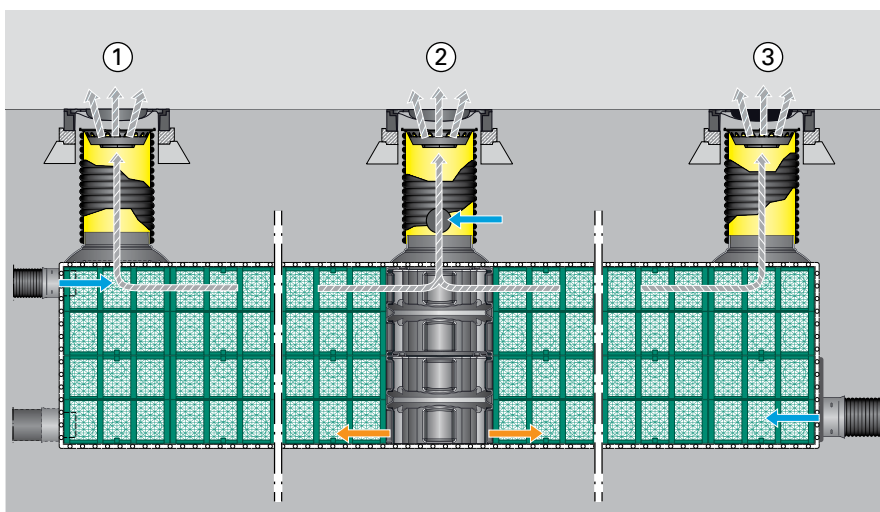
- Ventilation
- Inspection access
- Inlet



Arrangement of inspection shafts

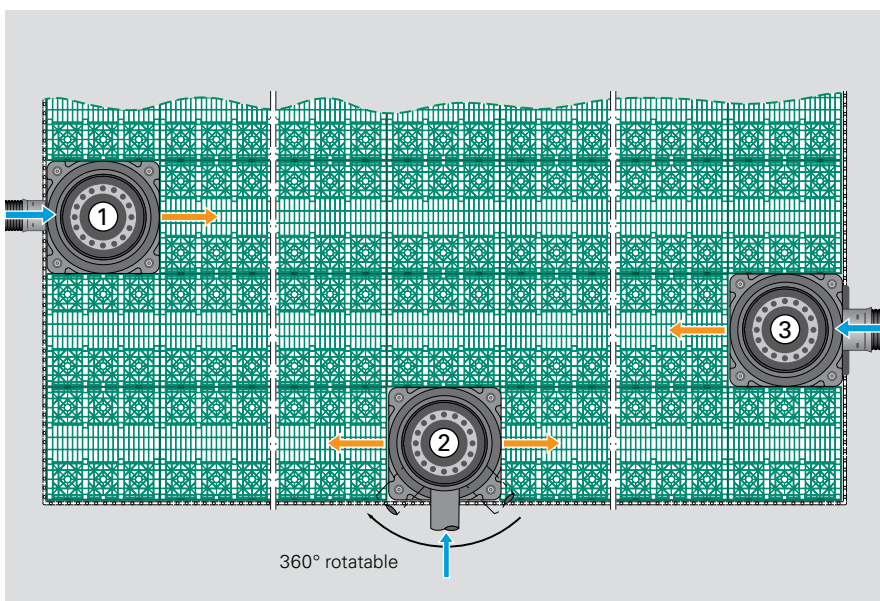
QuadroControl shafts can be incorporated at any point in the layout. Number of and position in the system are above all determined by the size of the system, access, pipe connections and design of the outdoor facilities. In order to ensure that inspection and/or flushing of the complete system is possible, each row should comprise at least one inspection shaft. With common camera or flushing technology, about 50 m of the system can be reached starting from the shaft; this means, if the shaft is incorporated in the middle of the system, up to 100 m can be reached.

For connecting supply pipes, QuadroControl shafts should be used. The shaft position in the layout can be chosen such that supply pipe lengths are as short as possible. In addition, the shafts should be positioned such that the shaft covers do not interfere with the design of the outdoor facilities, but can easily be accessed by vehicles for maintenance purposes. Adjacent shafts should be staggered in the layout.



Example, section

- ① QuadroControl 2 (= 2-layer), inlet DN 200 at the shaft body top (blue arrow) (or bottom), "straight" tunnel connection, (orange arrow) extension pipe without inlet.
- ② QuadroControl 2 (= 2-layer), extension pipe with inlet DN/OD 200 (360° rotatable), "left and right" tunnel connections. (orange arrow)
- ③ QuadroControl project shaft (2-layer), shaft body with inlet DN 300 (400, 500), (blue arrow) "straight" tunnel connection, (orange arrow) extension pipe without inlet.



Example, plan

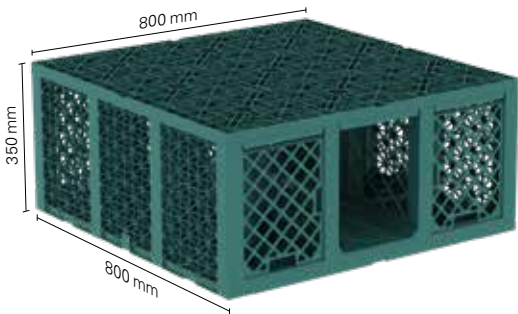
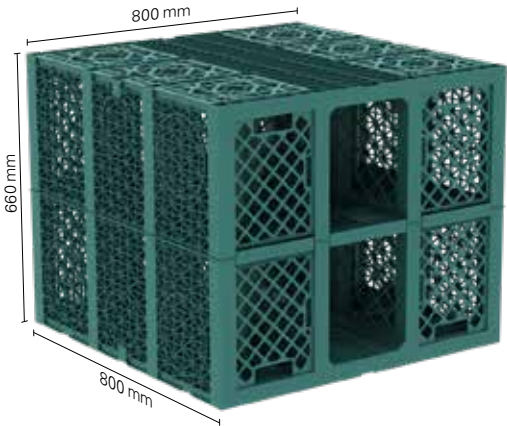
- Inlet
- Inspection access
- ↑ Ventilation



Example shaft ① with inlet at the shaft body

Design-relevant dimensions – Rigofill inspect

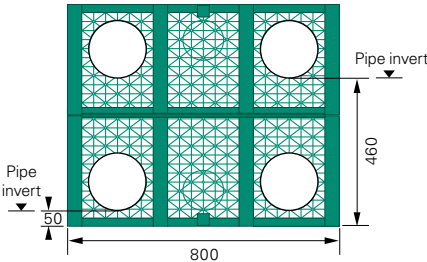
Dimensions



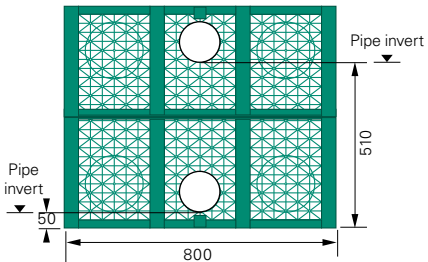
Lateral connection options



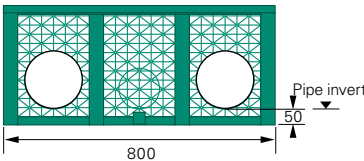
DN/OD 160



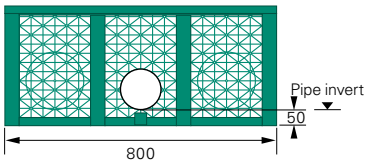
DN/OD 110



DN/OD 160



DN/OD 110

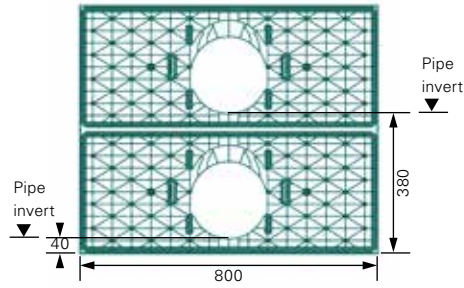


Front connection options

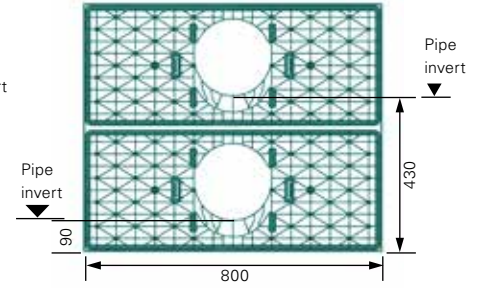
Adapter end plate DN/OD 200



Top connection



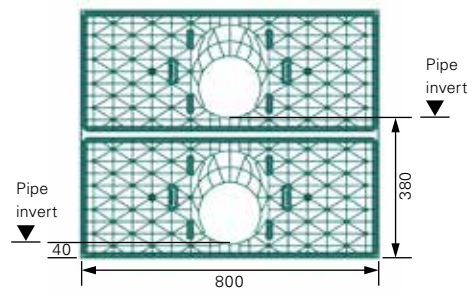
Bottom connection



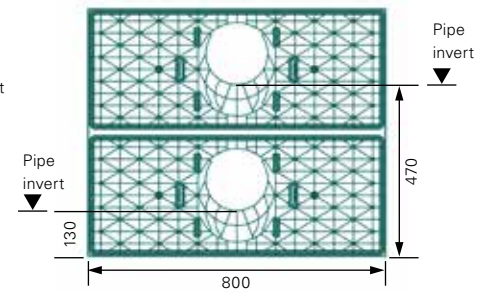
Adapter end plate DN/OD 160



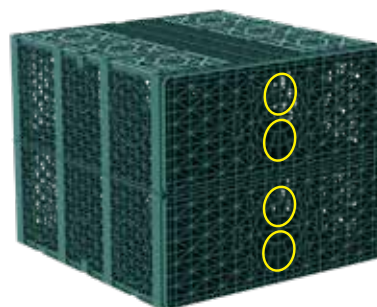
Top connection



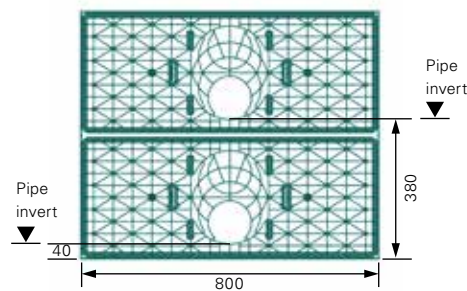
Bottom connection



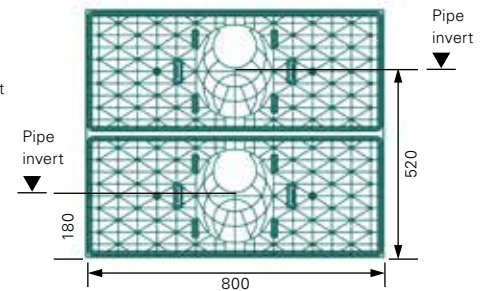
End plate DN/OD 110



Top connection



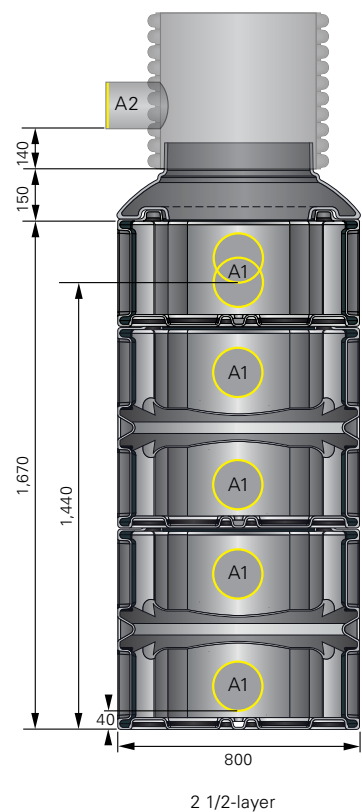
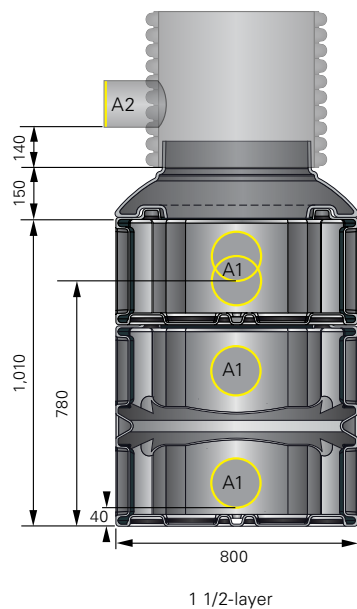
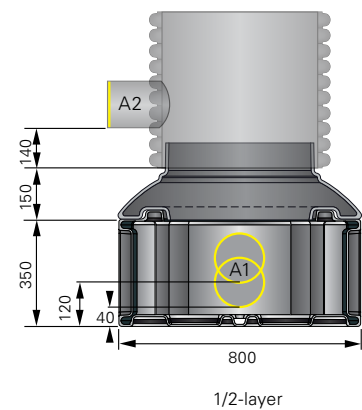
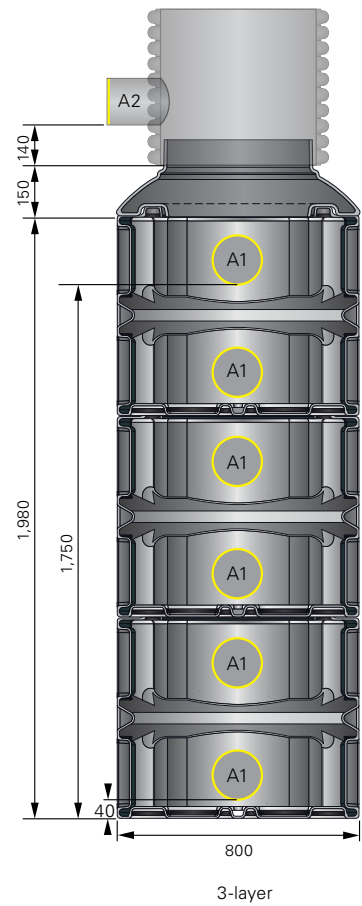
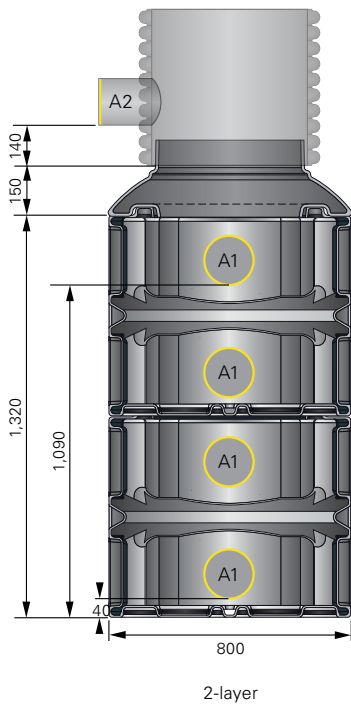
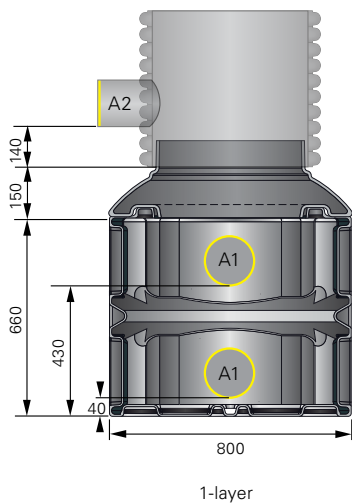
Bottom connection



Design-relevant dimensions – Quadro® Control

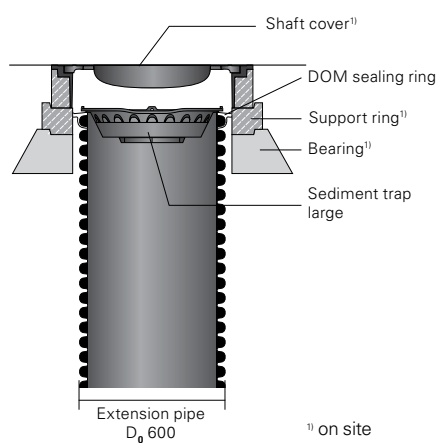
Quadro® Control dimensions and connections

Connection options	
A1	Connection for DN/OD 200
A2	DN/OD 200 or DN/OD 315 connection possible



Quadro® Control shaft structure

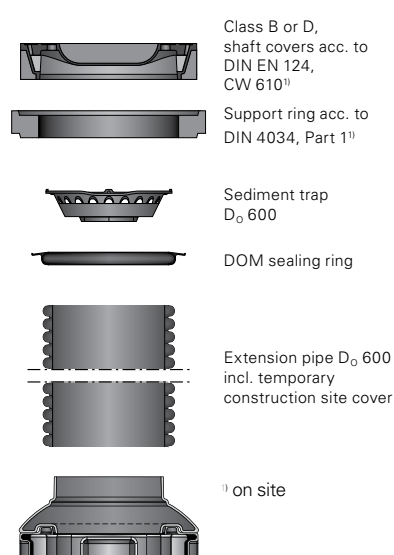
Shaft cover



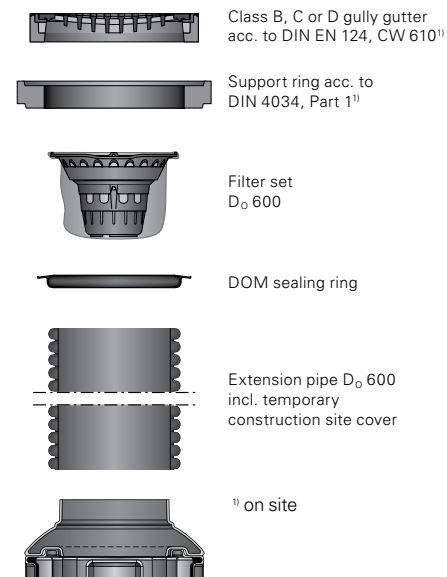
NB

Standard support rings can be used.

Structure of inspection shaft



Structure of swale emergency overflow

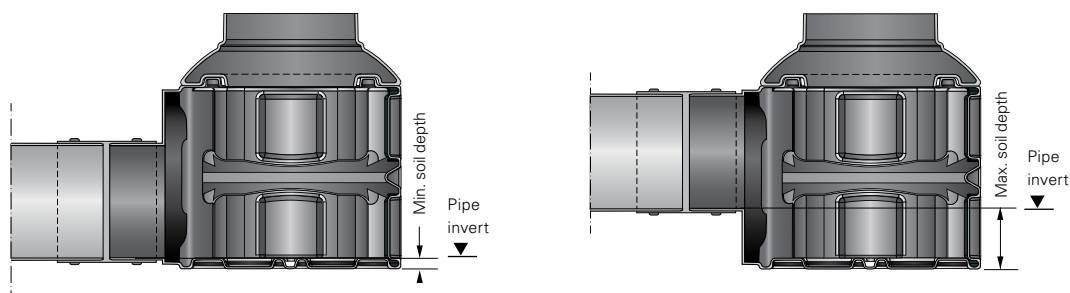


For watertight connections



Couple cone with sealing ring for watertight connections between extension pipe and cone, e.g., for watertight systems.

Connection options for special designs



Connection options	DN/OD 200	DN/OD 250	DN/OD 315	DN/OD 355	DN/OD 400	DN/OD 500	DN/OD 630
Min. soil depth (mm)	50	50	60	60	60	60	30
Max. soil depth (mm)	420	370	310	270	230	130	30



Product range overview

Rigofill® inspect



Highly durable and hard-wearing storage/infiltration module

Polypropylene storage/infiltration module featuring approval by the German Institute for Building Technology (Deutsches Institut für Bautechnik – DIBt) and RAL stormwater system quality mark. Dimensions: 800 x 800 mm; 660 or 350 mm height. 95 % void ratio, with lateral pipe connections for KG DN 100 and 150. Can be used for fire water storage (RigoCollect) according to DIN 14230 and the user approval of DB Netz AG.

Continuous inspection tunnel, designed for the use of automotive dollies with a camera size for pipes starting from DN 200 for inspecting the permeable surfaces as well as all statically relevant bearing-type fixtures. Installation under traffic areas and in large depths is possible, long-term carrying capacity has been proven.

Recommended accessories: Rigofill inspect accessories and QuadroControl

Application: Construction of gravel-free swales for the infiltration, retention and storage of stormwater runoff in combination with the RigoFlor special geotextile lining, QuadroControl inspection shafts and additional accessories. Please observe our installation manual.

Product	Technical data	Cat. no.
Rigofill inspect module	W x D x H = 800 x 800 x 660 mm; 422 l gross volume; 400 l storage volume; 20 kg weight	51590005
Rigofill inspect half block	W x D x H = 800 x 800 x 350 mm; 224 l gross volume; 211 l storage volume; 12 kg weight	51590006

Rigofill inspect accessories

- End plates to cover the inspection tunnel where no connections are to be made to a QuadroControl shaft.
- Ventilation unit for additional ventilation of modular storage/infiltration systems.
- Adapter end plates to directly connect to pipes.
- Connectors to secure Rigofill inspect during installation.
- RigoFlor, the mechanically bonded and thermally treated polypropylene (PP) geotextile with its unsurpassed combination of excellent water permeability, great thickness and optimum opening width ensures long-term filter functionality. Geotextile class 3. CE-certified according to DIN EN 13252.



Product	Technical data		Cat. no.
End plate	800 x 330 x 20 mm DN 100 KG connection possible on site		51990200
Adapter end plate DN 150 KG	800 x 330 x 20 mm		51990215
Adapter end plate DN 200 KG	800 x 330 x 20 mm		51990220
Connection panel DN 250 KG	800 x 330 x 170 mm		51990225
Adapter DN 150	KG/twin-wall pipe adapter DN 150		51961150
Adapter DN 200	KG/twin-wall pipe adapter DN 200		51961200
Ventilation unit	Connection panel, twin-wall pipe DN 110 (L = 3.0 m), ventilation cowl and profile sealing ring DN 110		51990110
Single-layer connector (suitable for single-layer installations)	Requirement for single-row installation	1 pc(s). per module ¹⁾	51990001
	Requirement for multiple-row installation	2 pc(s). per module ¹⁾	
Multiple-layer connector (suitable for multiple-layer installations)	Requirement for 2-layer installation	1 pc(s). per module ¹⁾	51990004
	Requirement for 3-layer installation	1.3 pc(s). per module ¹⁾ (factor 1.3)	
RigoFlor	200 g/m ² ; 4 m width; 50 m length		51695000
	200 g/m ² ; 4 m width; 25 m length		51695002
	200 g/m ² ; 4 m width; 10 m length		51695003

¹⁾ Please always order connectors separately – the above data is provided for information only. Obtain exact data on accessories for Rigofill inspect systems using the RigoPlan software available at www.fraenkische.com

QuadroControl system shaft



System shaft for Rigofill inspect

Plastic shaft, block type structure, consisting of one or several shaft base bodies plus cone depending on the layers of the planned Rigofill inspect system, material: PE-HD, colour: black, dimensions: 800 x 800 mm, dimension-compatible with Rigofill inspect, with an inlet side for pipe connections DN 200 KG or larger, with three tunnel sides to connect to Rigofill inspect (connection opening 220 x 220 mm) and with an even floor surface, designed for the use of automotive dollies with camera sizes for pipes starting from DN 200, with extension pipe D_o 600 mm, 500 mm clear opening diameter, available with optional rotating inlet connection.

Approved by the German Institute for Building Technology (*Deutsches Institut für Bautechnik – DIBt*) in the context of application of the Rigofill inspect system.

Recommended accessories: QuadroControl accessories

Application: For ventilation as well as for inspection and maintenance of the system. Multifunctional system shaft for Rigofill inspect storage/infiltration systems, can be integrated anywhere in the modular block type structure. Please observe our installation manual.



QuadroControl 1/2



QuadroControl 1



QuadroControl 2

Product	Technical data	Cat. no.
QuadroControl ½	W x D x H = 800 x 800 x 350 mm ¹⁾	51500059
QuadroControl 1	W x D x H = 800 x 800 x 660 mm ¹⁾	51501009
QuadroControl 1 ½	W x D x H = 800 x 800 x 1,010 mm ¹⁾	51501059
QuadroControl 2	W x D x H = 800 x 800 x 1,320 mm ¹⁾	51502009
QuadroControl 2 ½	W x D x H = 800 x 800 x 1,670 mm ¹⁾	51502059
QuadroControl 3	W x D x H = 800 x 800 x 1,980 mm ¹⁾	51503009
QuadroControl project shaft	Design acc. to drawing	51509000

¹⁾ Plus cone height: 250 mm

Quadro®Limit – system shaft with an integrated vortex valve



System throttle shaft for stormwater retention systems in Rigofill design

Plastic shaft, block type structure, consisting of one or several shaft base bodies plus cone depending on the layers of the planned Rigofill inspect system, material: PE-HD, colour: black, dimensions: 800 x 800 mm, height according to the number of layers of the storage/infiltration system, dimension-compatible with Rigofill inspect, with extension pipe D_o 600, 500 mm clear opening diameter. With integrated stainless steel vortex valve, manufacturer: **UFT Umwelt- und Fluid-Technik Dr. H. Brombach GmbH**, outlet diameter between DN 250 KG and DN 400 KG (depending on discharge performance and head), throttle outlet range from 4 to 80 l/s depending on the head (higher values available on request).

Recommended accessories: QuadroControl accessories, QuadroOverflow


Application: Throttle shaft for Rigofill inspect stormwater retention systems. Can be installed at any point alongside the system. Ideal for systems with very high demands concerning operating reliability and with the need for high discharge performance across all operating stages.

Product	Technical data	Cat. no.
QuadroLimit ½	W x D x H = 800 x 800 x 350 mm ¹⁾	51500052
QuadroLimit 1	W x D x H = 800 x 800 x 660 mm ¹⁾	51501002
QuadroLimit 1 ½	W x D x H = 800 x 800 x 1,010 mm ¹⁾	51501052
QuadroLimit 2	W x D x H = 800 x 800 x 1,320 mm ¹⁾	51502002
QuadroLimit 2 ½	W x D x H = 800 x 800 x 1,670 mm ¹⁾	51502052
QuadroLimit 3	W x D x H = 800 x 800 x 1,980 mm ¹⁾	51503002
QuadroLimit project shaft	Design acc. to drawing	51509002

¹⁾ Plus cone height: 250 mm

NB

To place a precise order, please use the QuadroLimit order form.

 www.fraenkische.com

Integrated vortex valve technology in cooperation with UFT



- Large outlet opening to prevent blockages
- Flushing peak, i.e., early reaching of high discharge volumes and discharge of contaminants to minimise the system volume
- Almost constant discharge
- Durable and hard-wearing stainless steel throttle for high operational reliability
- No moveable parts, no wear and tear
- Pressure cleaning can be used to clean the system
- Integrated same-level
- The project-specific installation is conducted by FRÄNKISCHE in cooperation with UFT

Quadro® Overflow – system shaft with integrated overflow threshold



System shaft as tank overflow for stormwater retention systems in Rigofill design

Plastic shaft, block type structure, consisting of shaft base body and cone.
Material: PE-HD, colour: black, dimensions: 800 x 800 mm, height: 350 mm or 660 mm.
Dimension-compatible with Rigofill inspect. With extension pipe D_o 600, 500 mm clear opening diameter. With integrated overflow pipe, top edge of overflow pipe and top edge of system same level. Outlet diameter DN 200 KG.


Recommended accessories: QuadroControl accessories

Application: Overflow shaft for stormwater retention systems consisting of storage/infiltration modules to limit the maximum water level. QuadroOverflow can be installed at any point alongside the storage/infiltration system. In multiple-layer systems, it is installed in the top Rigofill inspect layer.

Product	Technical data	Cat. no.
QuadroOverflow ½	W x D x H = 800 x 800 x 350 mm ¹⁾	51500051
QuadroOverflow 1	W x D x H = 800 x 800 x 660 mm ¹⁾	51501001

¹⁾ Plus cone height: 250 mm

NB

QuadroOverflow order form available at  www.fraenkische.com

Quadro®Control D_o 600 accessories



Product	Technical data	Cat. no.
Extension pipe without inlet ¹⁾	D _o 600; 1 m length	51550551
	D _o 600; 2 m length	51550552
	D _o 600; 3 m length	51550553
	D _o 600; 6 m length	51550556
Extension pipe ¹⁾ with inlet DN 200 KG	D _o 600; 1 m length	51550521
	D _o 600; 2 m length	51550522
	D _o 600; 3 m length	51550523
Extension pipe ¹⁾ with inlet DN 315 KG	D _o 600; 1 m length	51550531
	D _o 600; 2 m length	51550532
	D _o 600; 3 m length	51550533
Extension pipe ¹⁾ with inlet; project-specific (max. DN 300)	D _o 600; Use order form ☎ www.fraenkische.com	51550529
Coupling	For extension pipe D _o 600	51910500
Profile sealing ring ²⁾	For extension pipe D _o 600	51919501
DOM sealing ring	For extension pipe D _o 600; as seal between concrete support ring and extension pipe	51919505
Sediment trap D _o 600	Suitable for installation under CW 610 shaft covers	51991095
Filter set D _o 600	Swale emergency overflow for shafts D _o 600 comprising dirt trap and geotextile filter bag	51991002
Geotextile filter bag D _o 600	Replacement part of the filter set D _o 600	51991099
Shaft covers acc. to DIN EN 124	Class B or D, CW 610	–
Gully gutter acc. to DIN EN 124	Class B, C or D CW 610	–
Support ring acc. to DIN 4034, Part 1	Height: 100 mm	–

¹⁾ Pre-mounted temporary construction site cover included.

²⁾ The lubricant for watertight coupling connections for pipes and fittings is not included in the price and/or the scope of delivery, and can be provided at extra cost.

NB

QuadroControl shaft accessories order form available at ☎ www.fraenkische.com



Product	Technical data	Cat. no.
Lubricant, tube	500 ml tube	55690000
Lubricant, bucket	10 kg bucket	55691000

Our services

Water · Know-how · Consulting

Any task related to handling stormwater presents individual challenges. Framework conditions of individual projects vary significantly:

- Quantity and characteristics of stormwater,
- Entry of pollutants from surfaces and the air in the respective area depending on land use,
- Geological, hydrogeological conditions,
- Aspects of urban development and landscaping,

to name but a few considerations which must be made beforehand.

Relevant standards and provisions must be observed when planning and dimensioning storage/infiltration systems.

In addition to construction companies and design engineers, our consulting services are particularly interesting for builders/project developers who want to sustainably protect their investment using economic and durable solutions.

Further information

- Installation manual  www.fraenkische.com
- Price list
- Tender documents
- Installation video

CAD library

Documents such as CAD catalogues and CAD drawings are available for download under “Stormwater management” on our website. Standard installation situations and detailed drawings are shown as sections and plans, which can be modified by the design engineer to meet specific project needs.

These drawings can then be included in the design documents or added to the tender documents as illustrative detailed drawings.

CAD data  www.fraenkische.com

Contact

Contact persons head office Königsberg

International Sales Director

Horst Dörr +49 9525 88-2490
horst.doerr@fraenkische.de

International Sales

Dinah Wächter +49 9525 88-8155
dinah.waechter@fraenkische.de

Technology

Pedro Simoes +49 9525 88-8360
pedro.simoes@fraenkische.de

European Sales Director

Klaus Lichtscheidel +49 9525 88-8066
klaus.lichtscheidel@fraenkische.de

European Sales

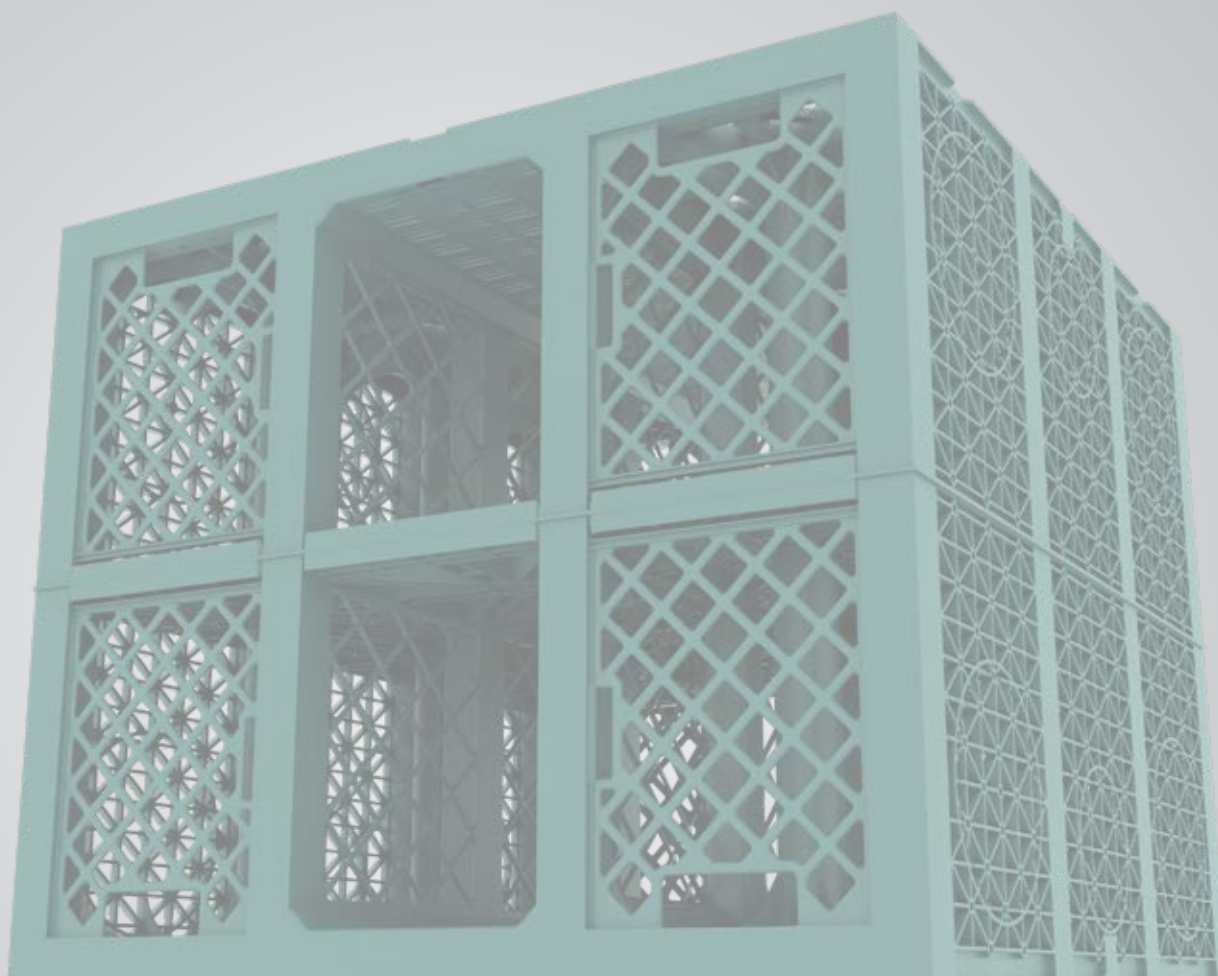
Julia Möller +49 9525 88-2394
julia.moeller@fraenkische.de

Carolin Diem +49 9525 88-2229
carolin.diem@fraenkische.de

Viktoria Majewski +49 9525 88-2103
viktoria.majewski@fraenkische.de

Fax +49 9525 88-2522





FRÄNKISCHE

Fränkische Rohrwerke Gebr. Kirchner GmbH & Co. KG | Hellinger Str. 1 | 97486 Königsberg/Germany
Phone +49 9525 88-2200 | Fax +49 9525 88-92200 | marketing@fraenkische.de | www.fraenkische.com

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