mall
environmental
systems

Mall environmental systems
for the protection of water and soil

Rainwater management | Separating systems | Wastewater treatment | Pump and plant engineering

Mall – the specialists in rainwater, wastewater and renewable energies








Over six decades, the Mall Group has become one of the most important specialist providers, with process-engineering expertise for rainwater management, separating systems, wastewater treatment plants and pump and plant engineering with its comprehensive range of environmental systems.

In addition, the Mall Group has established itself as a skilled manufacturer and supplier of specialist products for street and road design and burial chamber systems.

The Mall Group has nine production sites. These are in Donaueschingen, Ettlingen-Oberweier, Coswig/Anhalt, Haslach in the Black Forest, Nottuln and Coesfeld in the Münsterland, Asten and St. Valentin in Upper Austria and Szentendre near Budapest.

For many years, Mall GmbH has been using renewable energy to fully meet the needs of all its production sites in Germany. This way, Mall avoids emitting around 800 tonnes of harmful carbon dioxide per year and also makes a contribution to environmental protection in this field.

Furthermore, all printed documents are printed in an environmentally neutral way, preventing an increase of carbon dioxide in the atmosphere. The CO_2 output of the printed products is calculated precisely and the emissions which result are compensated at First Climate by purchasing certificates which finance regenerative energy projects. With the aid of this certificate trading, Mall offsets the unavoidable CO_2 emissions from the print production, making it climate neutral.

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Highest quality concrete technology

Working as a team, we at Mall continuously develop new solutions, and are involved in projects from site analysis, laboratory tests and manufacturing right through to installation and final inspection. Thanks to consultants who are renowned in their fields and development work in partnership with universities and colleges, Mall technology is always state of the art.

DIN-tested quality

Reinforced concrete containers and concrete components from Mall are not subject to quality fluctuations. Additives, reinforcement steels and binding agents are selected in accordance with the exacting requirements of the latest generation of standards – DIN EN 206 and DIN 1045, parts 1 to 4. Concrete production is subject to systematic factory production monitoring in Mall's concrete laboratory and continuous quality control by the recognised testing and certification body PÜZ BAU.

Delivery and installation using Mall's special-purpose vehicles

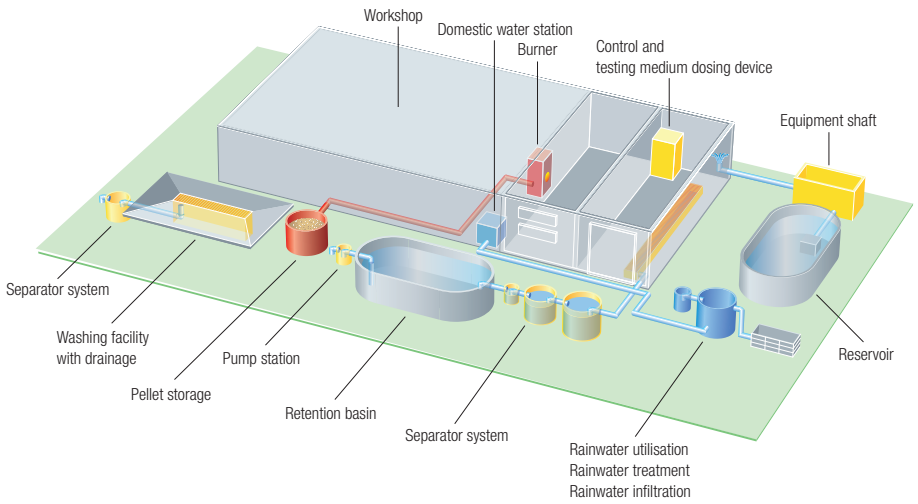
Mall has a fleet of special crane vehicles with a lifting capacity of up to 12 tonnes for lifting containers into place on site. The reinforced-concrete containers and complete systems are delivered and installed all over Germany.

Internal testing and development centre

At its location in Donaueschingen, Mall has a testing and development centre for separating plants, rainwater and wastewater treatment plants, which is one of the most cutting-edge in Europe. It features a test course for separating plants, wastewater treatment plants and test systems, a modern workshop and a testing laboratory equipped with automated control and measurement technology. Here, products can, for example, be quickly adjusted or converted to meet changed environmental protection regulations or the amended German water resources law (Wasserhaushaltsgesetz, WHG). These test results are verified by the testing company LGA in Würzburg and, if necessary, they are submitted to the German Institute of Construction Engineering (DIBt) in Berlin for approval.

Concrete has many advantages

- \+ Made of natural, local raw materials
- \+ 50 years operating life in conformance with DIN or EN
- \+ Easy to dispose of and recycle
- \+ Can be driven over by passenger cars and trucks (weighing up to 60 tonnes) thanks to its stability and robustness
- \+ Easy to position in the prepared construction pit
- \+ Filling with existing excavation material and mechanical compression possible
- \+ High earth cover possible
- \+ Can even be used in high groundwater and in flood areas

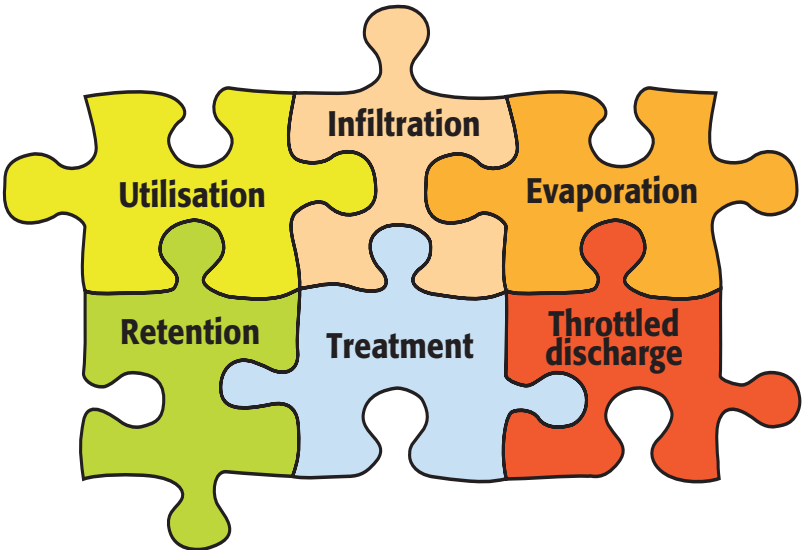


Sensible products and solutions for rainwater and wastewater
Rainwater management

In recent years, floods and growing problems in connection with drinking water abstraction have led to a change in the way we look at water. The natural water supply is either to be disturbed as little as possible or reproduced as well as possible.
Rainwater management is now of high significance in urban water management. As a result, the requirements on products and system technology have increased. Universal, decentralised solutions are in demand.

Mall provides technologically sophisticated systems which reliably meet the official requirements for all fields of rainwater management.

The instruments of rainwater management are as follows:



For this reason, decentralised systems for retaining and treating rainwater are increasingly being installed as part of the construction of industrial parks, traffic areas and residential buildings. This water is treated before being discharged in a controlled manner into a body of water or allowed to percolate into the ground – an economical and also environmentally friendly alternative to treating the water in municipal wastewater treatment systems together with other waste. How contaminated rainwater is depends on where the water landed.

Because: The rainwater run-off from sealed areas can pose problems because of its volume and contents. The possible consequences include overloading of wastewater systems and a build-up of suspended matter in receiving bodies of water. Falling rainwater will pick up a range of difference substances depending on the state of roof areas and what has built up on traffic surfaces. In order to discharge the rainwater into a body of water or into the ground after treating it, a range of treatment methods must be used.

Treatment of rainwater

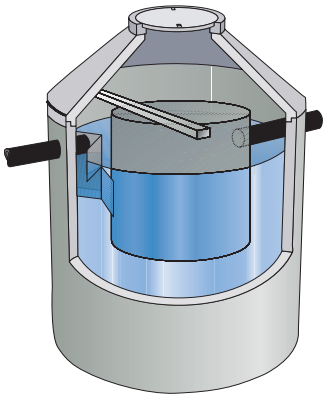
Rainwater treatment systems protect infiltration systems from being contaminated and blocked by settling materials when rainwater drains away from road surfaces. How contaminated rainwater is depends on where the water landed.

ViaSed sedimentation system
For groundwater and infiltration system protection. Sedimentation systems from Mall protect surface water against contamination and ensure that rainwater infiltration systems remain functional in the long term. Sedimentation systems filter out solids, thus ensuring that water and groundwater is considerably cleaner. At the same time, there is space for the retention of light fluids. This provides protection, for example, during oil accidents.

The guide baffle directs the incoming water to form a circular stream flowing tangentially to the container. Dirt particles settle at the bottom and light fluids are retained in the upper area. An additional containment area is provided for light liquids if accidents occur.

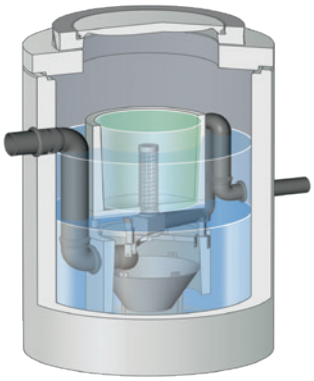
The advantages at a glance

+ Monolithic reinforced concrete tank
+ Corrosion-resistant fitted components
+ Simple, low-maintenance technology
+ Short installation time
+ Prefabricated system components of consistent quality
+ Reliable adherence to the specified outlet limits



ViaTub lamella separator
For the treatment of rainwater from sealed surfaces before discharge into water bodies / ground water. Thanks to the disc packs, large connected areas can be treated in relatively small plants; this helps meet the current water protection criteria. Compact system for underground precipitation water treatment with a smaller size than a sedimentation system. Plastic pipes in the disc packs enhance the settling effect, particularly for small particles; this increases the effective area of the basin. The inclination of the lamellas causes particles to slide to the bottom of the container (sludge settlement).

Treatment of rainwater

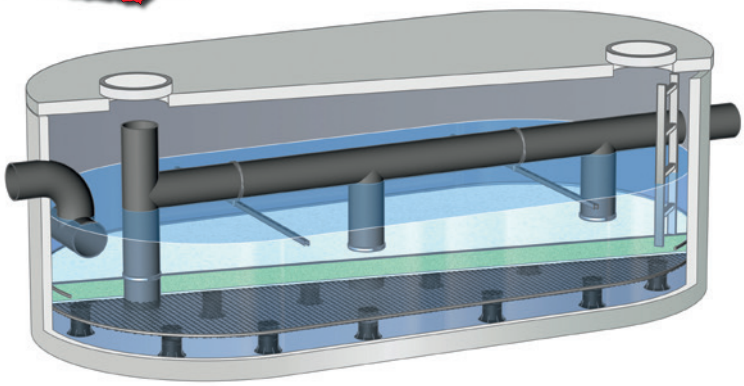


ViaPlus substrate filter
For draining traffic areas with a high traffic volume, e.g. car parks in shopping centres. Areas measuring up to 3,000 m^2 can be connected.
The substrate filter cleans in 3 stages:
Stage 1: Retention of settling substances
Stage 2: Separation of filterable substances
Stage 3: Removal of detached and emulsified substances

The system can be used wherever rainwater from traffic areas is discharged into bodies of water and where there are legal requirements on the properties of that rainwater.
This is always the case when water is discharged
- straight into the groundwater
- in water catchment areas
- in waters with valuable fish stocks
- in waters containing protected aquatic species

ViaGard F water protection filter with pre-filter fleece and technical filter tested according to ÖNORM B 2506-3
For the treatment of rainwater contaminated with dissolved polar substances from traffic areas and areas with relevant amounts of uncoated metals.

The water protection filter ViaGard F is used when heavily polluted rainwater is to be discharged into sensitive receiving waters (small flowing waters, lakes, waters with fish).



The ViaGard F water protection filter has an inlet pipe and an outlet pipe that are both above the filter. The discharged water is fed through the filter and back to the top. Advantage: When planning for height, only the actual filter loss of 300 mm has to be taken into account. Disadvantage: Lower available buffer volume.

The filter always consists of at least three layers:
1. Filter fleece: removes the finest of filterable substances
2. Technical filter: removes heavy metals and dissolved polar substances
3. Drainage layer: relaxes the flow of water and drains off the water

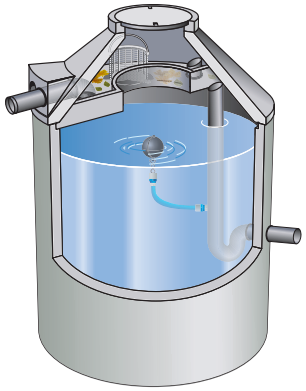
The water flows vertically through the filter layers from the top down. Any pollutants are retained by the filters. With ViaGard F, the riser provides for the proper equalisation.

Retention of rainwater

The amended Water Management Act 2009 (WHG), which obliges communal planners and decision-makers to simulate the natural water supply when planning new development areas, poses the question of how decentralised rainwater retention can be implemented.

Reto rainwater tank

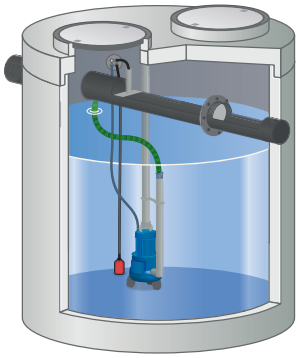
Rainwater tanks not only store water for use, they also retain rainwater which would otherwise burden the sewage system with undesirable peak volumes. Not enough attention is generally paid to this retention effect in private use. This behaviour is altered with the Reto rainwater storage tank, an ingenious system which combines usage with retention. In the same manner as public rainwater retention basins, this tank repeatedly provides free retention capacity for the next instance of precipitation. Its function in providing for rainwater use is unaffected.



Mall bypass throttle ViaFlow

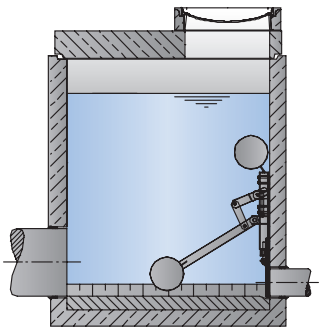
Due to the limited capacity of sewers and flowing waters, building permits issued by the lower water authorities or the municipal operators of the sewage system are increasingly dependent on how much rainwater can flow off a property without causing damage to the infrastructure. Today, more and more cities are limiting the amount of water that can be discharged from new buildings. In these cases, a restriction device must be installed to prevent more water than planned from being drained off. In addition, a capacity must be created to absorb the excess water volume and to discharge it in a time-delayed manner.

When restricting the flow in the bypass, the main water flow is directly diverted up to the preset value. The excess water is channelled into the collection tank and from there, it is pumped back into the main stream after the precipitation event.



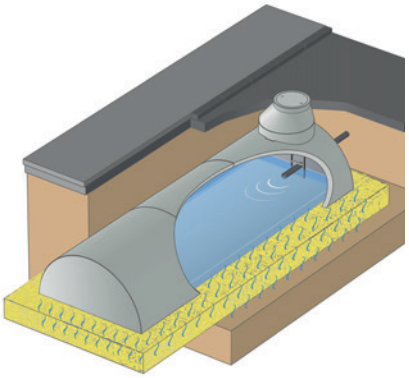
Mall throttle surge chamber ViaPart

The ViaPart throttle devices regulate the inflow volumes to the treatment plants. When throttling occurs, the excess water quantity must take a different, sufficiently dimensioned path. This path can be a bypass or a rainwater retention basin. This new product line offers ready-to-use, factory-made throttle structures with various flow restrictors such as flow regulators, vortex valves or scaled throttle gates.



Infiltration of rainwater

Rainwater utilisation and retention systems are not dependent on the local wastewater disposal and sewage systems, or the costs associated with these. The run-off rainwater is filtered and collected in a rainwater storage tank. The stored rainwater is used as service water in the house or for watering the garden. Excess rainwater is discharged and percolates into the ground.



Seepage tunnel CaviLine

CaviLine seepage tunnels made of reinforced concrete half-shells can be arranged in a linear fashion, or planar for parallel operation. This enables them to be adapted to the respective conditions.

In contrast to the more cubically arranged soakaway crates, the flat, wide-area design ensures a more favourable and volume-saving ratio between the tunnel volume and infiltration area. This often allows a smaller volume to be used. The arrangement is optimal for linear structures such as roads and paths. Here, CaviLine can be buried under the road like a sewer system; the drainage discharge can then be provided from the sides. This makes it possible to dispense with a collector sewer system.

The design ensures an optimal ratio between the infiltration area and retention volume. This makes the required volume smaller than with cubic shapes. In addition, the infiltration path between the base of the infiltration system and the groundwater level is decisive for ensuring infiltration. Here, too, there is an advantage thanks to the flat, near-surface arrangement. Volumes and infiltration areas can be designed individually, depending on local conditions.

Due to the internal height of 1.25 m, Mall's CaviLine infiltration tunnels are accessible in accordance with the German Social Accident Insurance (DGUV) definition. This provides considerable economic advantages for the maintenance and operation. There is no need for camera or maintenance robots; inspection, cleaning and repairs can be carried out directly and with simple tools that are available anywhere.

Infiltration always refers to discharging into the groundwater. As the largest drinking water reservoir, the groundwater body enjoys special protection. Water that is to be infiltrated must therefore almost always be pretreated.

Various stages of pretreatment are possible:

- Settling shaft with partial infiltration pipe through the infiltration stage as the simplest pre-treatment option
- Mechanical pretreatment stages with sedimentation units and predefined treatment capacity, such as the ViaSed sedimentation plant and the ViaTub lamella clarifier
- Stormwater settling basin without permanent retention as per DWA-M 176, such as the ViaKan lamella clarifier
- ViaPlus substrate filters approved by the building authorities
- Above-ground biologically active soil zone as with the Innodrain seepage system

Separating systems are an ecological must-have

According to legislation, water that is contaminated by light mineral liquids, lubricants and animal and vegetable fats must be subjected to pre-treatment. This pre-treatment must take place in an approved separating system. This may be either a light liquid or a grease separating system.

The solution:
Wastewater treatment with Neutra separating systems from Mall
Rainwater and wastewater that might contain hydrocarbons must be drained via a light liquid separating system as per DIN EN 858 part 1 and 2.

They must have both a CE marking and a German national technical approval. In addition, consistent quality is guaranteed and thus reliable operation of the structures when dealing with water-polluting liquids in conjunction with the RAL quality mark RAL-GZ 693. Businesses in which commercial wastewater with animal and vegetable fats and oils are produced must treat their wastewater with a grease separating system. Grease separating systems are manufactured and operated in accordance with DIN EN 1825. They are also subject to the CE marking obligation, they must have a German national technical usability certification and are provided by Mall with the RAL quality mark.

Both types of separating system are available for underground and free-standing installation in buildings. Large systems can be conceptualised in a building-specific way.

RAL quality control association
Certifies manufacturers that have the criteria tested by an independent institute.

RAL GÜTEZEICHEN
ABSCHEIDER ANLAGEN

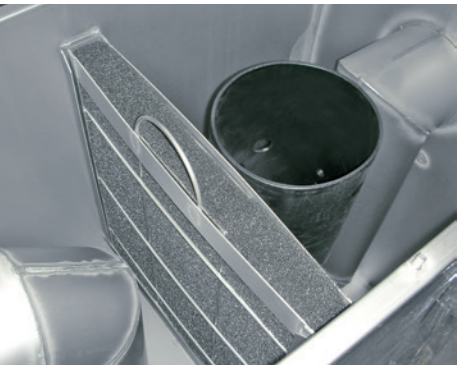
GET quality characteristics
External monitoring of production processes

- Specific proof of stability
- Quality characteristics as defined by quality guidelines
- Regular update of the products' technical standards
- External monitoring of the type approval and of national approvals
- Internal and external production monitoring
- Tested type structure SLW 60
- Bears RAL quality mark RAL-GZ 693

Gütesicherung Entwässerungstechnik GET

Certification system		
	Separating systems (mineral oil separators)	**Grease separators**
CE marking	■	■
Ü mark: Monitoring by an external body	■	■
General technical approval	■	■
RAL quality certificate	■	■

For light mineral liquids – also with biodiesel fractions
Neutra separating systems



Neutra oil, coalescence and gasoline separating systems (classes I and II)
These separation systems are used in all applications where light mineral liquids are filled, vehicles are washed, or where light liquids may escape during the operation, servicing and repair of vehicles. They consist of the following functional areas: sludge trap, petrol separator, coalescence separator, sampling shaft and alarm system.

Method
Depending on requirements, the functional components are housed in one or several structures made of seamless reinforced concrete. Solid particles such as sand and sludge are separated in the sludge trap. Light mineral components are separated from water and rise to the surface in the oil and petrol separating system. This light liquid layer must be properly removed and disposed of. The sampling shaft is used for taking monitoring samples of the discharged water.

The components of a separating system

Sludge trap
A sludge trap sediments settling solids. This is necessary especially for large amounts of sludge produced. An effective sludge trap is of great importance for the subsequent treatment. The design of the sludge trap depends on the nominal size of the separating system and the sludge quantity produced.

Class II separating system
A class II separating system must exhibit a maximum discharge value of 100 mg/l hydrocarbons in test conditions. All principle guidelines are tested and certified as is the case with the coalescence separating plant.

Class 1 separating system
For the class I separating system a variety of principle guidelines and functional requirements are tested and certified both during the initial inspection of the product and in recurring production monitoring and certification steps. One of the requirements of the class I separating system is the discharge value with a maximum of 5 mg/l of mineral hydrocarbons under prescribed test conditions. In effect, a class I separating system has even greater purification capabilities than a class II separating system.

The advantages at a glance

+ Monolithic reinforced concrete tank
+ Quality-controlled prefabrication using water permeable jointless reinforced concrete C 35 / 45 (B45) as per DIN 4281 and DIN 1045, reinforced to ensure protection against cracking
+ With type-tested structural calculation
+ Certified under the RAL quality mark 693

Sampling shaft
All separating plant systems feature a sampling shaft that allows for sampling of the discharged wastewater stream. To ensure this, the sampling shaft is subject to strict geometrical requirements as per DIN 1999-100.

There are downstream sampling shafts for underground installation or sampling devices for free-standing installation.

Light liquid separator pursuant to DIN EN 858-1
- NeutraCon pre-sludge trap
- NeutraSed sludge trap
- Class II NeutraSub separating system
- Class I NeutraStar separating system
- Class I separating system with NeutraSteel sludge trap
- Class I separating system with NeutraCom sludge trap
- Class I separating system with NeutraSpin sludge trap
- Class I and II separating systems with NeutraPro sludge trap
- NeutraSam sampling basin
- Light liquid separating system with NeutraPass integrated bypass
- NeutraCheck sampling shaft
- NeutraStop OAC automatic warning device

For animal and vegetable fats — **Neutra grease separators**

Grease separators are part of the wastewater treatment process necessary for certain commercial operations. The animal or vegetable fats and oils contained in wastewater must be treated before they are discharged into the sewage system. This is the only way that deposits on pipe walls, which lead to reductions in available cross-sectional area of the pipe and to blockages of sewage pipes, can be prevented in the long term.

Prevention of blockages and deposits in pipelines

Separation systems for animal and vegetable substances consist of several functional components: sludge trap, grease separator and sampling shaft. Depending on the requirements, these functional components can be installed in one or several structures.

Heavier matter will settle in the sludge trap, while fats and oils rise to the surface. The layer of fat must be removed and disposed of. The sampling shaft is used in monitoring the discharged wastewater.

Grease separator for underground installation

- Covers suitable for traffic – installation location remains available for use
- Excellent access for maintenance and disposal
- Long-lasting seals and flexible pipe connections
- The separating system is available with internal coating to the relevant standards or with a HDPE inliner

Free-standing, frost-protected

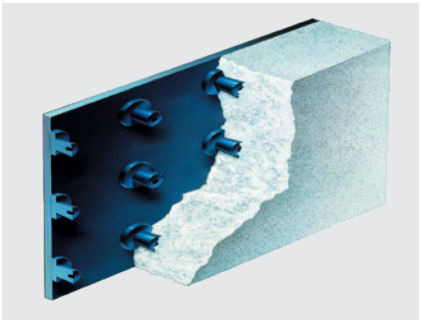
- The system remains mobile
- Narrow shape, low weight, can fit through narrow doors
- No earthworks required for installation
- Viewing glass for monitoring the layer of fat
- Tested, guaranteed quality

PE concrete protection layer for special anti-corrosion applications

For special anti-corrosion requirements made necessary by waste water inside containers, Mall provides a model with an HDPE inliner. This way, the reinforced concrete grease separators can be lined with PE concrete protection layers in the factory. The high level of mechanical stress is combined with improved resilience against wastewater with varying temperatures.

One side of the artificial plates feature a certain number of conical anchor nubs which provide for a permanent bond with the concrete. Stress caused by various instances of heat expansion of concrete and plastic is suppressed by this force-locked connection.

For 30 years the combination of concrete and plastic has proven itself to be a highly acid-proof lining under the toughest conditions around the world. Hydraulically smooth, non-porous surfaces prevent encrustation and support the self-cleaning process, allowing the system to be low-maintenance and therefore highly economical in the long term.



The advantages at a glance

+ Made from high-quality, robust reinforced concrete
+ Certified under the RAL quality mark 693
+ Corrosion-proof, high-quality stainless steel components
+ Standard-compliant internal coating
+ Type-tested structural calculations

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CE

Centralised and decentralised wastewater purification – **wastewater treatment plants for 4 to 200 PE**

In order to treat wastewater from rural estates, small sewage treatment plants are not only a sensible solution but usually also the most economical one. Mall builds ready-to-connect wastewater treatment plants in robust and durable reinforced concrete tanks that are delivered across the country in various sizes for 4 to 200 inhabitants to be installed in the shortest possible time.

Mall small wastewater treatment plants produce a perfect treatment result. The SanoClean SBR sewage treatment system can be used for all connection sizes from 4 to 200 inhabitants; increased purification requirements are also possible with extensions.

The advantages at a glance

+ No electrical or rotating parts in the wastewater
+ Control, compressor and valves in a compact cabinet for indoor or outdoor installation
+ The reinforced concrete tank can be driven over and is robust, seamless and water-tight; it is even ideal for high levels of groundwater
+ Retrofitting existing systems possible

SanoClean small SBR wastewater treatment plant

The modern SanoClean SBR plant works in two stages. One stage is the mechanical pre-treatment. At the same time, this chamber collects the wastewater from your house. This buffer function means that the system can adjust itself to your behaviour over the course of the day. The bacteria in the second chamber, the activated sludge chamber, receive a predefined amount of wastewater from the buffer. It is a process that takes place in four cycles per day.

The process: Full biological purification takes place inside the sequencing batch reactor (SBR): incoming air circulates the wastewater and supplies the bacteria contained in the activated sludge with oxygen so that they can break down the pollutants. Following the aeration phase, the settling phase begins in which the biologically active sludge settles to the bottom and a clear water zone with purified water forms on top. The clear water is drawn off in a time-controlled manner. Purified water is available in the sampling pot for maintenance purposes.

For domestic and municipal applications – **pump stations for pressure draining**

If there is an insufficient slope, if the groundwater level is high or if there are other unfavourable topographical conditions, the discharge of wastewater with faecal matter and rainwater using gravity drainage becomes either impossible or too expensive. An economic solution is offered by the Mall pump station.

The advantages at a glance

+ Individual solutions thanks to flexible components and sizes
+ Ready for installation or pre-assembled at the factory, resulting in quick installation and low costs
+ Mall takes care of planning, manufacture, delivery and installation
+ Fixed price means no cost uncertainty
+ Reliable operation with proven, brand-name pumps
+ Tough, high-quality and waterproof reinforced concrete with seamless construction

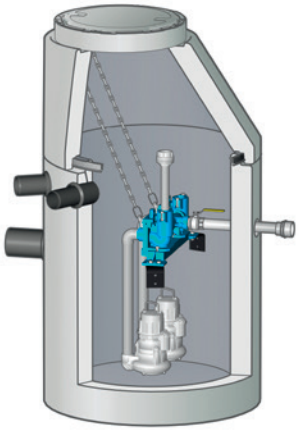
Variable sizes
The pump manholes are monolithic round containers made from high-quality reinforced concrete, and have a height of up to 3.25 m. For various shaft depths there are shaft attachments measuring up to 3 metres in height. In addition to our standard range, Mall also provides large rectangular reinforced concrete structures with wet and dry chamber walls.

Pre-assembled and ready for installation
All pump stations are dimensioned individually. All system components of the pump stations are supplied ready for installation, including the electric control system, and are generally delivered pre-assembled.

Ready-to-connect compact pump stations
Alternatively, Mall also provides fully pre-assembled compact pump stations. Models are available for wastewater with or without faecal content. As all the parts are in stock and in sufficient quantities, we can guarantee quick delivery times at all times. For areas beneath the backflow level, the system can be expanded with a backflow loop that prevents the basement from being flooded when the water level in the sewage system rises.

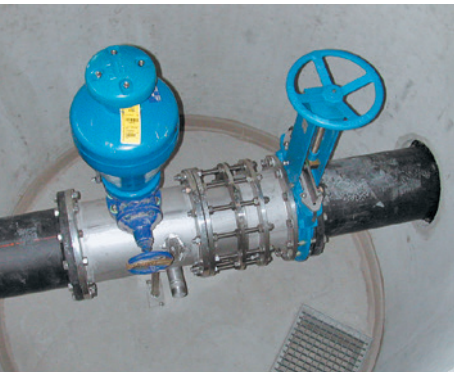
LevaFlow compact pump station
- For wastewater with no faecal content (grey water)
- For drainage, rainwater and wastewater from separating systems

LevaPur compact pump station
- For wastewater with no faecal content (grey water)
- For use as backwater protection downstream of separating plants



LevaPol compact pump station
- For wastewater containing faeces (black water)
- For use in detached and semi-detached houses

Valve manholes



Mall valve manholes are the right choice wherever pressure pipes are equipped with fittings. The shafts are delivered ready to install, and factory assembly ensures fast installation and high quality. Mall only uses high-quality, corrosion-free materials for piping and fittings, working in close cooperation with the project planner.

Wastewater applications

- Aeration and deaeration manholes for pressure pipes with gravity-flow sections
- Sliding gate shaft with manual gate or electrical drive
- Cleaning manhole for pressure pipes
- Valve manhole downstream from pump station
- Compressor manhole
- Measurement manhole – e.g. for flow rate measurement devices

Drinking water applications

- Water meter manhole
- Cleaning manhole for pressure pipes
- Distribution manhole for main and branch pipes

Only high-quality fittings are used in the installation of our systems

- Shut-off flaps
- Slider
- Hydraulic gates
- Drives
- Waste weirs
- Change-over flaps with stem and locking lever
- Tooth profiles with clamp straps as per DIN 19558 in aluminium or stainless steel
- Submerged baffles
- Dam sluices
- Backflow gates
- Tipping troughs
- Manhole ladders as per DIN 18799 made of stainless steel, galvanised steel or reinforced plastics
- Climbing systems with fall protection for climbing heights of over 5 m (stipulated by German accident prevention regulations, UVV)
- Entry aids for increased safety
- Manhole covers made of stainless steel / moulded concrete / mouldings as per required load class

Other equipment and installation parts

A large proportion of the equipment and installation parts for Mall products is produced in our own manufacturing facilities.

The advantages at a glance

+ Precise reinforced concrete tanks with smooth surfaces
+ Seamless and water-tight, can also be driven over by vehicles larger than a 60 t HGV
+ Quick to install – delivered ready to install
+ Fittings made from corrosion-free materials

For a range of applications
Reinforced concrete tanks from Mall

Reinforced concrete tanks from Mall are used wherever liquids are collected, stored or treated.

Tailor-made systems

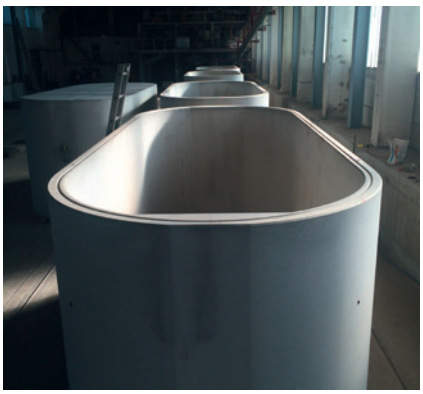
Individual construction heights for various types of containers can be easily implemented. Inlets and outlets in the form of core drillings, unfinished recesses or ready-to-connect seals can be integrated during production. Reinforced concrete tanks are manufactured in accordance with DIN EN 206 and the new series of standards for concrete EC 2 (DIN EN 1992-1-1).

The advantages at a glance

+ Can even be driven over by vehicles larger than a 60 t HGV
+ Lower costs thanks to the quick installation, as well as due to potentially necessary water retention
+ No loss of useful area thanks to installation underground
+ Buoyancy prevention if necessary

Made from high-quality concrete, tailored, robust and watertight

Reinforced concrete tanks from are made from high-quality reinforced concrete, are seamless and have a smooth surface. To increase the volume, it is also possible to connect several tanks together, extend them by using U-shaped connector pieces, or to install them on top of each other.



Areas of application

- Rainwater management
- Rainwater clarification basins
- Fire-fighting water basins
- Cooling water basins
- Separating systems
- Decentralised small sewage treatment plants
- Wastewater collection pits
- Pump stations

Reinforced concrete tanks at a glance

Reinforced concrete tanks	Inner Ø	Total height	Length	Width	Content
Type	mm	mm	mm	mm	m^3
Round structure	800 – 3000	750 – 3250	–	–	1 – 23
Oval structure	–	2600	from 6000	2480	29 – 40
Rectangular structure	–	Max 3400	Max 6000	Max 3300	20 – 50
Rectangular profile	–	2850	from 6000	4050	24 – 100
Multi-component structure	4000 or 5600	1500 – 3250	from 6000	–	25 – 1000

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Rainwater management	Separating systems	Wastewater treatment	Pump and plant engineering

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