

XXL channels for drainage
and dewatering



Heavy rain management

**DRAINAGE AND
DEWATERING SYSTEMS**

**HEAVY-DUTY
SYSTEMS**

ROOF AND WALL
SYSTEMS

PLANTING
SYSTEMS

BATHROOM AND
KITCHEN SYSTEMS



From unsealing to dewatering

The right approach to heavy rainfall

Climatic extremes are becoming more and more commonplace, even here in Europe. Long stretches of heat without a drop of water are increasingly followed by heavy-rain events. While dried-up and hardened ground in open and green spaces struggles to absorb a large amount of rainwater, sealed surfaces in urban areas and industrial environments are particularly at risk of flooding and the ensuing damage. Heightened levels of rainfall can sometimes overwhelm even existing sewer systems, which can then no longer guarantee controlled drainage.

Consequently, besides the creation of large-scale infiltration areas, steps also have to be taken to make paved and concrete surfaces – some of which are fully sealed – pervious and restore the ground’s important function as a water reservoir and groundwater inflow. Over the next few pages, we will demonstrate how sealed surfaces can be successfully unsealed and show the extent to which special channel solutions can help retain rainwater and thus protect against flooding.

The right approach to heavy rainfall

Stripping the seal: equal protection against heavy rain and heat

There are several ways in which to restore not only the infiltration capacity of previously sealed surfaces but also other natural processes, such as the air and gas exchange between the ground and its immediate environment.

- **Breaking up and stripping concrete, asphalt or paving**
- **Removing fills**
- **Loosening soil to break down any compact areas**

Breaking up previously sealed substrate to reveal the natural soil beneath creates new habitats for plants and animals alike. This has a positive impact not only on infiltration, but also on the ambient temperature. While concrete and paving both store and reflect heat, a natural, planted and “breathing” ground surface absorbs or even significantly reduces heat through the evaporation of rainwater.

Channels for rainwater retention – the perfect addition

It is not always possible or even desired to completely unseal the affected areas. Retention channels, i.e. special dewatering and drainage channels for the temporary storage and retention of rainwater, work well as a complementary solution and sometimes even as an alternative to breaking up sealed surfaces. Depending on the needs of a given location, the products are available both as infiltration channels and as dewatering channels that can be connected to the sewer system.

The use of retention channels comes with a number of advantages:

- 1. High-volume water storage**
Thanks to their large dimensions, retention channels are able to reliably and temporarily store huge amounts of rainwater.
- 2. Reduced need for unsealing work**
Retention channels are a practical addition to the usual forms of surface unsealing in cases where an area cannot or should not be completely unsealed.
- 3. Controlled drainage**
Especially models that connect directly to the sewer system make sure precipitation is confined to the immediate area and channelled away in a controlled manner.
- 4. Creation of living space**
While typical retention areas cannot be used for other purposes such as the creation of living space, retention channels facilitate the efficient retention of rainwater in a residential setting.
- 5. Simple and efficient solution in the smallest of spaces**
When the ground’s natural infiltration capacity has reached its limits, retention channels offer a huge amount of added potential for the smallest of spaces.

“Retention channels work well as a complementary solution and sometimes even as an alternative to breaking up sealed surfaces.”

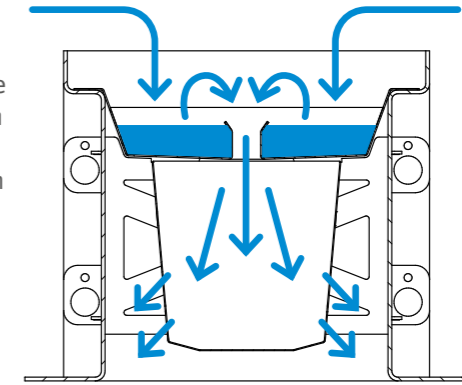




An overview of our XXL channels

With our **RigoMax** and **FerroMax** models, we have developed two channels that differ in terms of construction and function and thus satisfy a number of site conditions and specific customer requirements.

The **RigoMax** is an ideal solution for the infiltration and simultaneous retention of water where no sewer connection is available. The channel is equipped with not one but two filter inserts, which makes it appealing, among other things, for use in areas exposed to traffic, which are sometimes subject to relevant regulations on the filtering of rainwater.

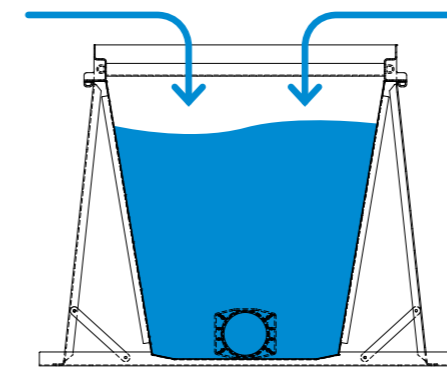


	RigoMax
Type	gravel-filled drainage channel
Function	drainage
Load	wheel loads from 5 to 10 t (depending on concrete foundation and grating)
Rainwaterstorage per metre	90 l to 970 l (standard versions)
Custom manufacture	yes
Special features	two filter inserts for coarse gravel and water-bound substances

XXL retention channels to protect against flooding

Strong against stormwater

As experts in drainage and dewatering systems, we aim to counter the challenges posed by increased heavy-rain events with high-performance products and solutions. Hence developing our XXL retention channels, which can even be relied upon to temporarily store immense volumes of water before draining it or diverting it in a targeted manner. What's more, both our **RigoMax** and **FerroMax** models, which come as heavy-duty products as standard, are ideal for use in areas exposed to traffic.



	FerroMax
Type	water collection channel
Function	dewatering via nozzles
Load	wheel loads from 5 to 10 t (depending on concrete foundation and grating)
Rainwaterstorage per metre	102 l to 900 l (standard versions)
Custom manufacture	yes
Special features	base feet to facilitate assembly and act as concrete anchors during installation

If a sewer connection exists at the installation site, for example, it can be coupled with our **FerroMax** channel – for controlled drainage following the immediate temporary storage of rainwater in the channel body.





RigoMax graved-filled drainage channel XXL drainage

RigoMax | infiltration channel made of hot-dip galvanised steel
Standard channel length: 1,000 mm

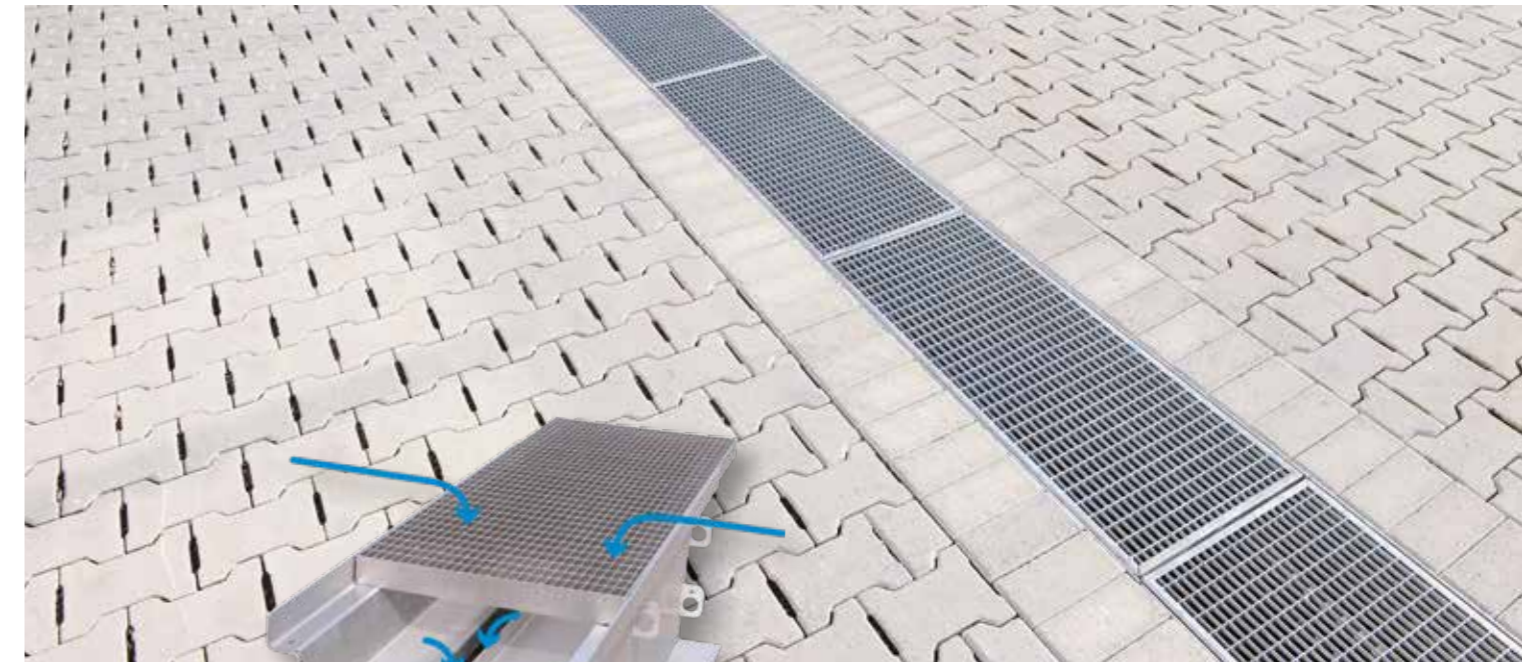
Item designation	Nominal dimensions	Wheel load	Width	Height	Storage volumes per metre
RRR 388-350 ST	DN 300	10 t	388 mm	350 mm	102 l
RRR 588-550 ST	DN 500	10 t	588 mm	550 mm	275 l
RRR 1088-1050 ST	DN 1000	10 t	1,088 mm	1,050 mm	1,000 l

RigoMax | infiltration channel made of stainless steel
Standard channel length: 1,000 mm

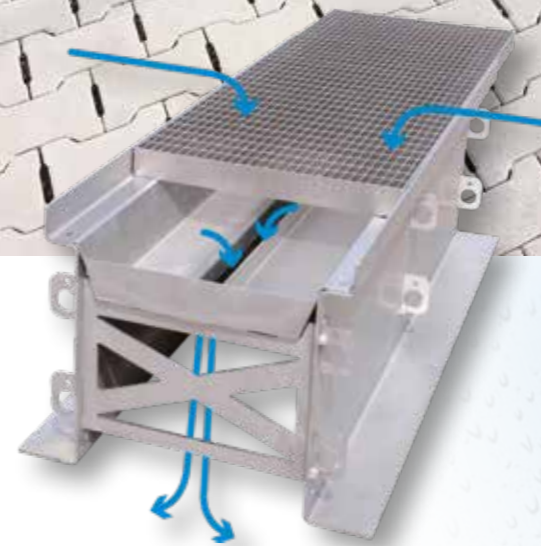
Item designation	Nominal dimensions	Wheel load	Width	Height	Storage volumes per metre
RRR 388-350 VA	DN 300	10 t	388 mm	350 mm	102 l
RRR 588-550 VA	DN 500	10 t	588 mm	550 mm	275 l
RRR 1088-1050 VA	DN 1000	10 t	1,088 mm	1,050 mm	1,000 l

Product and sizing information may contain errors.

Prices as per price list:



Water intake and flow for the RigoMax



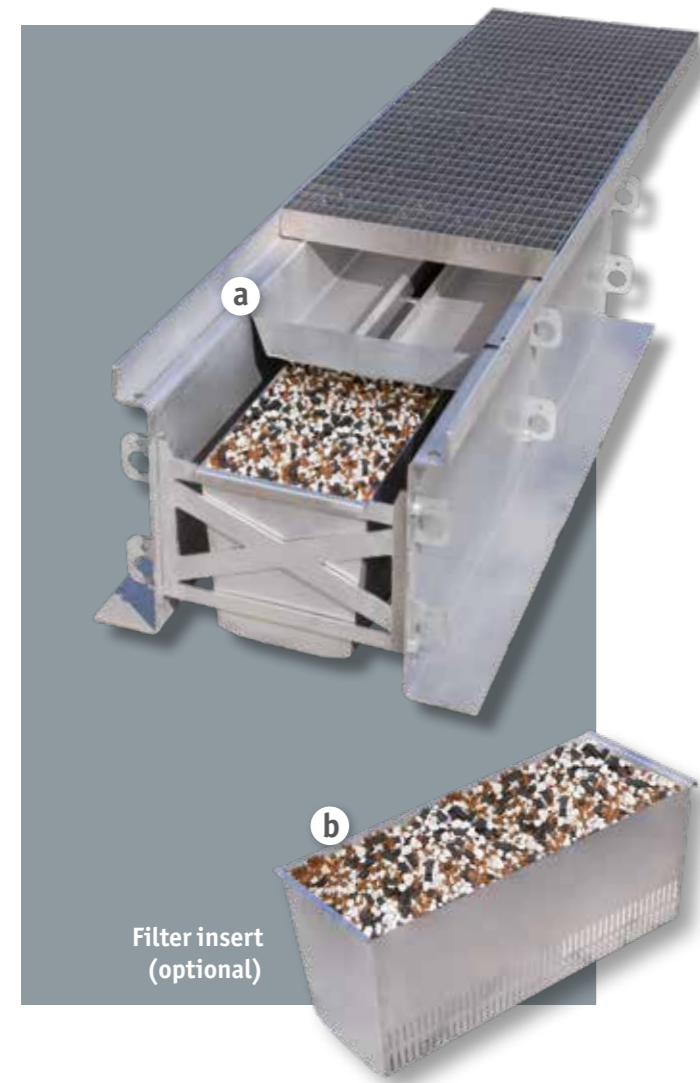
Urban areas and surfaces exposed to traffic in particular are not always connected to the sewer system. Moreover, these areas tend to be extensively sealed with concrete or paving, which means the controlled removal of water is not always possible during periods of heavy rainfall. We developed the RigoMax gravel-filled infiltration channel for these types of scenario. The channel appeals not only with its dimensions, but most of all due to several product details.

Thanks to its bottomless construction, the channel is designed to quickly collect accumulating rainwater and gradually drain it into the substrate. It also includes two integrated filter inserts, one of which can be added depending on the intended use and applicable regulations. The first insert (a) sits below the grating and features upturned edges that help hold back coarse dirt such as sand or leaves, as well as tyre wear particles and microplastics. The optional second insert (b) is able to filter out substances found in the water such as heavy metals, as is often prescribed for public areas.

We make the channels from 4mm-thick hot-dip galvanised steel or stainless steel as standard. Integrated connection braces and anchor tabs on the outer walls that are designed to be set in concrete give the RigoMax increased stability. Depending on the grating cover, the infiltration channels are able to withstand wheel loads of between 5 and 10 tons. The channels are available in a standard length of 1,000mm, with overall widths of 388mm, 588mm or 1,088mm and heights of between 350mm and 1,050mm. We also produce variants in custom lengths and heights on request. Depending on the model, the channels boast a storage capacity of between 90 and 970 litres per metre. Much larger dimensions are also possible here, with a suitable drainage solution available for even the most demanding of applications and locations.



Concrete anchors along either side



Filter insert (optional)

Custom measurements on request





FerroMax water collection channel

Instant storage in XXL

FerroMax | Water storage channel made of hot-dip galvanised steel

Standard channel length: 1,000 mm

Item designation	Nominal dimensions	Wheel load	Width	Height	Storage volumes per metre	Price per litre
ERFE 388-380 ST	DN 300	10 t	388 mm	380 mm	102 l	7,28 €/l
ERFE 588-600 ST	DN 500	10 t	588 mm	600 mm	266 l	3,55 €/l
ERFE 1088-1130 ST	DN 1000	10 t	1.088 mm	1.130 mm	900 l	1,30 €/l

FerroMax | Water storage channel made of stainless steel

Standard channel length: 1,000 mm

Item designation	Nominal dimensions	Wheel load	Width	Height	Storage volumes per metre	Price per litre
ERFE 388-380 VA	DN 300	10 t	388 mm	380 mm	102 l	7,28 €/l
ERFE 588-600 VA	DN 500	10 t	588 mm	600 mm	266 l	3,55 €/l
ERFE 1088-1130 VA	DN 1000	10 t	1.088 mm	1.130 mm	900 l	1,30 €/l

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Prices as per price list:



The **FerroMax** is produced in a variety of dimensions to best suit the type of construction and size of the project. It comes in a length of 1,000 mm as standard. With overall widths of between 388 mm (DN 300) and 1,088 mm (DN 1000) as well as installation heights of between 380 mm and 1,130 mm, the channel offers a storage capacity of between 102 and 900 litres per running metre. We also produce variants in custom widths and heights on request. The entire system is designed based on load classes D 400 to E 600, with the actual classification depending on the properties of the concrete foundation and the grating chosen to cover the water collection channel.

Custom measurements on request



It is a known problem that tends to affect areas exposed to traffic and residential areas, especially in urban spaces: more and more ground surfaces are being sealed as the result of building development, concreting, asphaltting and paving. During times of heavy rainfall, these sealed surfaces are prone to risks such as flooding, as the required level of water permeability is no longer guaranteed. This has led to a growing demand among construction projects for solutions that compensate for the limited or entirely prevented drainage capacity in these areas.

Our **FerroMax** model certainly fits the bill here. The XXL water collection channel made from either hot-dip galvanised steel or stainless steel is ideal for quickly collecting large volumes of precipitation. The solution temporarily stores the water inside the channel body before feeding it into the sewer system in a gradual and controlled manner via drain nozzles. This effective approach prevents the system from becoming overloaded.

The frames, which also act as grating supports, are made from 4mm-thick metal. The 2mm-thick base feet facilitate the alignment of the channels during installation while also serving as concrete anchors to make sure the channels are firmly fixed to the substrate. Connection braces between the frames provide additional stability.





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Richard Brink is a medium-sized and growing family-run company from Schloss Holte-Stukenbrock. Founded in 1976, the company is now managed by the second generation. With over 150 employees and our own, also internationally oriented sales team based, for instance, in Austria, France and the Netherlands, we have established ourselves in the market as a specialist for premium metal goods.

We develop, produce and sell innovative drainage and dewatering solutions alongside versatile planting systems and products for roofs and walls, industry, bathrooms and kitchens.

In doing so, we place great importance on a level of workmanship and dimensional accuracy that satisfies our customers' own high standards. Not only are we known for our broad range of standard products, we have also made a name for ourselves as a manufacturer of individual, custom-made products and bespoke solutions.



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