BIRCO Middle East FZE
بيركو ميدل إيست م م ح

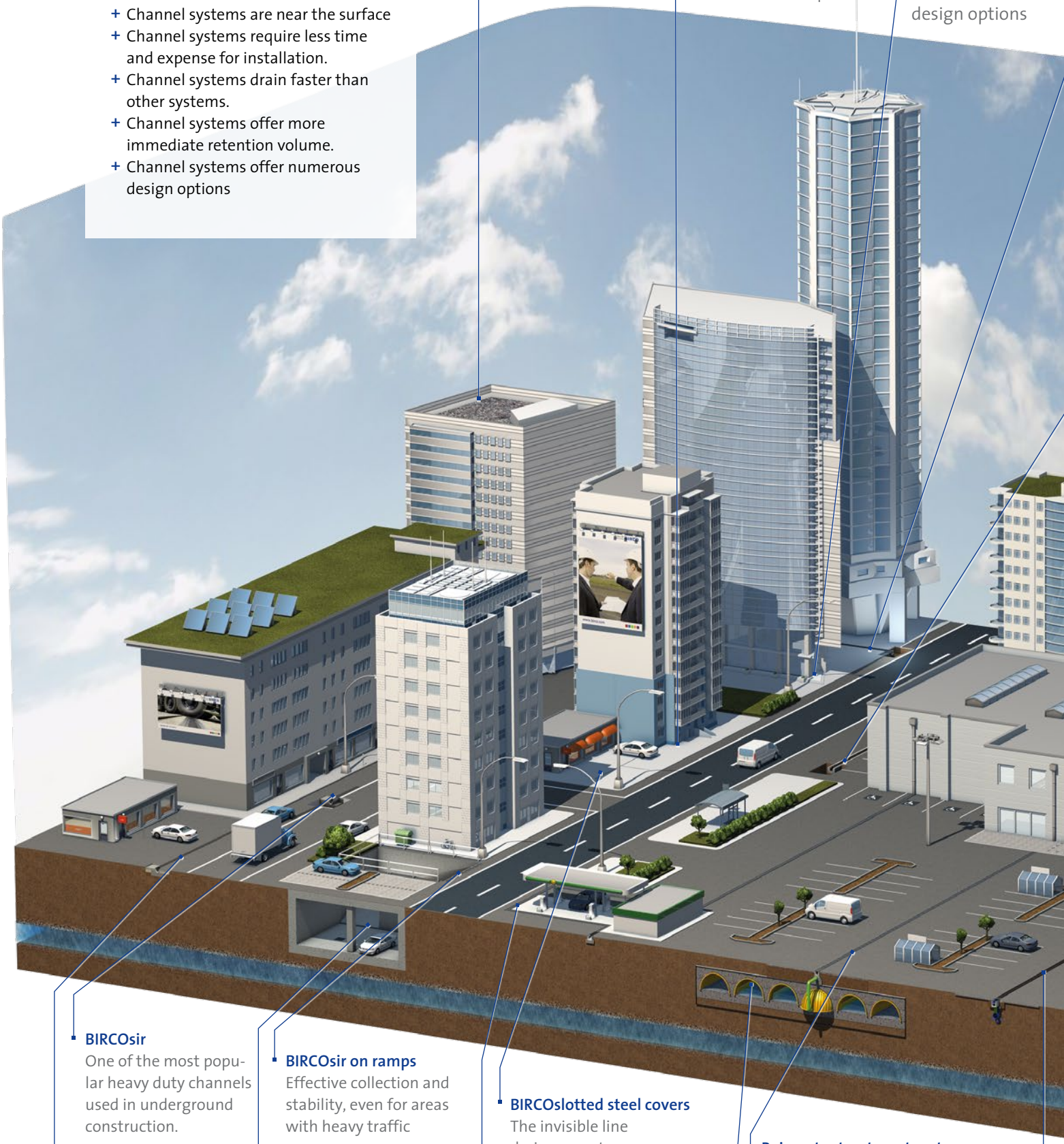
BIRCO DRAINAGE IN ITS BEST FORM
أفضـل تصريـف للميـاه

„Water-oriented Urban Planning“

On the right path together – with BIRCO

MORE EFFICIENCY

+ Channel systems are near the surface
+ Channel systems require less time and expense for installation.
+ Channel systems drain faster than other systems.
+ Channel systems offer more immediate retention volume.
+ Channel systems offer numerous design options




BIRCO guide system for the visually impaired
Clever combination of a guide system and drainage system
BIRCOmassiv
For continuous truck delivery traffic
BIRCOtop
Barrier-free transitions
BIRCOpur®
Feeding water from roofs into rainwater treatment systems and cleaning it
BIRCOtop
Roof drainage
BIRCOtwinpack®
Channel with a second level for small surfaces
BIRCOplus
The classic channel for driveways and garages
BIRCO French drain seepage tunnel
Retention space and delayed seepage
BIRCOtop
Barrier-free transition on balconies and terraces
Rainwater treatment system BIRCOsed®
Collection and drain in flowing waters
Collecting with BIRCOsir
Channels with large nominal widths and load classes up to F900 are also available.
BIRCOtop
Barrier-free entrances
Drainage in topsoil
Collect and channel safely with channels.

Rain | Global Cycle

Everything flows dynamically in a global cycle of evaporation and condensation.

Hydrological circulation is the main cycle of life

The cycle of water is the main driving force for all life on Earth. The climate, fauna, and flora as well as the composition and morphology of the earth's crust are determined by evaporation and precipitation. Human life as well - whether its on land or in urban spaces, industry or mobility - depend decisively on uninterrupted hydrological circulation.

Urbanization is directly related to the uninterrupted water cycle

Rain - as the most common form of precipitation - completes the cycle of evaporation and condensation. Enormous amounts of atmospheric water are cycled daily. Again and again and again. In Germany alone, an average of 800 litres of rainwater per square meter fall every year.

Rain performs an essential function in formation

The rain produced cleans the air and surfaces from dust, pollen, and other particles. It clears up the atmosphere. When it rains, oxygen, nitrogen, carbon dioxide, sulphuric acid, and nitric acid are washed out. Through the process of erosion on the earth, precipitation releases minerals from rocks and soil that then serve as nutrients for plants.

A decisive influence on the climate, health, and quality of life

Rising water vapour, cloud formation, and water saturation of the air determine the pressure conditions in the atmosphere, and therefore the global climate. The average and medium-term amounts of rain have a great influence on the regional climate as well as on the microclimate, and therefore directly on the quality of life locally.

Civilisation factors influence the natural cycle

Numerous civilisation factors influence this cycle. The greenhouse effect, emissions, the redirecting of natural waterways, and the sealing of the soil are the most important keywords in this regard. In each of these areas, human intervention has a direct effect on our daily life. Not only in 100 years, but right now.

The goal should therefore be to design our living environment so that the „water cycle" can function without interruption - as a resource and a driver of life. The enormous growth of cities - and even more extreme, of megacities, attracts particular attention. That is why BIRCO develops concepts and products for handling water in the future.

„Water is the principle,
or the element, of things.
All things are water.“

Thales von Milet
um 625 – 545 v. Chr.

Markus Huppertz
Head of Product Management

Urban Planning | Holistically

Winning people over, inspiring people, and getting people to join you.

Land recycling as an option

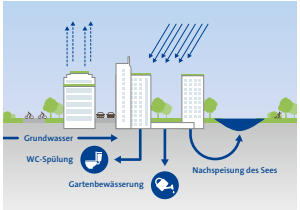
Regardless of whether its for partial regeneration or large-scale land recycling of factory premises, railroad properties, or military barracks, the subject of water is always an important subject, but the main questions often only revolve around development and social concepts.

Heavy precipitation

However, every new district will experience precipitation and even increased heavy rainfalls in the future. If you focus your view on the element of water right from the start, it is possible to gain some economic use from precipitation.

Handling water

For example, precipitation can be collected, cleaned, stored temporarily, used, allowed to seep, or fed into the water system. In the simplest case, you have a choice between solutions near the surface or underground solutions. The advantage of planning solutions near the surface is the low cost of redevelopment. When upgrading existing buildings, which is a majority of urban development, you don't always have the option of using an underground solution.



Water brings quality of life

Storage and usage aspects are often only planned for single family dwellings. District energy concepts like the use of combined heat and power (CHP) plants for generating electricity and heat are rare.

Transregional responsibility of cities with sealed surfaces

When you plan with water, you plan with nature. If you store water and use it to water trees and green spaces, a high quality of life is also guaranteed during dry periods in summer. And you can do this without resorting to tank trucks or the volunteer fire department.

Local concepts also ensure the easing of transregional tension resulting from flooding. The more water that is allowed to seep and stored decentrally, the less the region will suffer from sudden floods. True to the motto „Think globally, act locally"

Planning without limits!

Drainage and the corresponding challenges are experienced everywhere. On roofs (metal exposure), balconies (accessibility), terraces (waterlogging), courtyards and forecourts (design and fire department access), entrances (accessibility) and façades (perimeter insulation), on large and small spaces as well as in pedestrian zones (design and vehicle access), in green spaces and parks (landscaping), on streets, parking lots, and business properties (emissions and vehicle access). It can be collected, cleaned, used, displayed, fed in, and allowed to seep. There are almost no limits to your fantasy during planning when viewed this way.

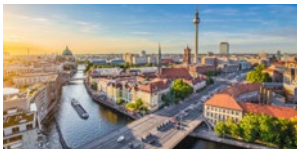
Image source: Stefano Boeri

Urban Spaces | Different Requirements - Flexible Design

Different living environments characterize the appearance of our cities. Plazas, paths, buildings, green spaces, and businesses.

Evolution instead of revolution

Cities are areas of development. They were shaped by the dreams and visions of the people who built them. The ideas and requirements evolve slowing over time. Cities then change accordingly - area by area, house by house, and district by district.



Changes at the district level, from small to large

Dialogue between administrators, citizens, and developers

This gradual process of change is the foundation of good urban planning because it is only rarely possible to „redevelop“ entire districts or convert entire areas. Progress towards „water-oriented urban planning“ is achieved every time a building permit for construction within city limits is issued. Cities can only be ecologically efficient when the city administration, in dialogue with citizens and developers, search for and promote feasible concepts.

Non-demanding paths for better mobility

Beautiful locations for more well-being

In addition to the formal planning challenges, the demographics of cities also change. There are young and old cities on our planet, whereby attractive cities tend to attract young people. In Europe and North America, the population is ageing rapidly. It is necessary to consider the mobility of people in these regions. Short, barrier-free, and non-demanding paths are required here. The quality of the environment and the aesthetics of the building and plazas are not insignificant factors for the well-being of the general public. A reasonable mixture of densification and nature, social balance, and options for taking pause, obtaining supplies locally, meeting other people, and maintaining privacy provide more quality of life for young and old.

There are opportunities here to use the element of water - flowing water, fountains, and bodies of water have been used to judge cities since time immemorial. Fountains characterize plazas and are a symbol of life and prosperity. Clean bodies of water in cities generate quality of life and convey basic cleanliness. People remember locations where there is water; famous fountains all over the world are proof of this, and in many cases cities are mentioned in conjunction with the corresponding rivers.

Water as a planning parameter

If you want to leave an impact on a city, you should plan with the cornerstone of life - water.

Large trenches and green spaces used for seepage have a hard time in the city, but water can be retained and even treated near the surface as and alternative. For example, channels could be used to collect water, and compact rainwater treatment systems could server as a replacement for soil zones. It is easy to realize collection systems and delayed drainage using high-performance systems.

BIRCO Middle East FZE بيركو ميدل إيست م م ح
JAFZA LOB 16, Office 203
Jebel Ali Free Zone
P.O. Box 261 865
Dubai- UAE
Mobile +971 (0)50 551 0509
Fax +971 (0)4880 8643
Email info@birco.ae
Internet www.birco.ae

„Water-oriented Urban Planning“

Stay up to date

facebook

facebook.com/birco.rinnensysteme

twitter

www.twitter.com/BIRCO_DE

BIRCO Homepage

www.birco.ae

BIRCO_BRS_Water-oriented-Urban-Planning_12/15_EN