

The JUMBO BLOCK® solution

Large-volume retention, water storage and infiltration basins made to measure.

The JUMBO BLOCK® System



14 m³/Block
Zusammenstellung frei wählbar.

Extremely stable, can withstand very high static loads, can be built over and is suitable for heavy goods traffic!

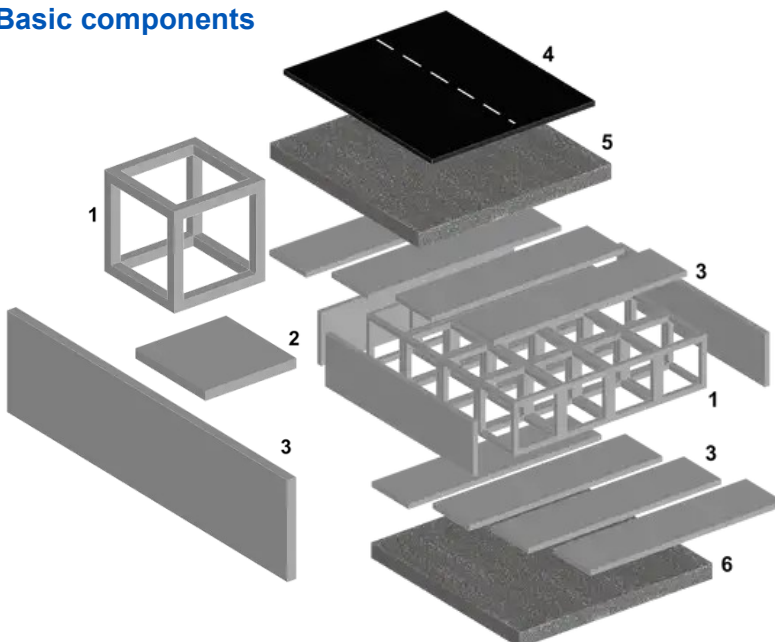
RETENTION AREAS

- Municipalities,
- Industrial and chemical areas,
- Areas near water bodies,
- Port areas,
- Airports,
- Agricultural land,
- vulnerable valleys and depressions,
- and many other use cases.

There are no limits when it comes to planning!

Example JUMBO BLOCK® system structure

Basic components



Building a system

1. JUMBO BLOCK® system block
2. Square cover, closure or base plate
3. Rectangular cover, closure or base plate
4. Roadway (or buildings)
5. Base layer (usually gravel mixture)
6. Base, infiltration layer (usually gravel/sand mixture)

Retention, water storage and Infiltration basin

USING ROAD SUBSTRATE FOR RETENTION

By road retention we mean not only a storage space for flood water (for example during heavy rain events), but also an adaptation to the consequences of climate change, as water storage is becoming increasingly important. JUMBO BLOCK® is a statically strong framework that remains flexible in the system - even after installation.

This makes it much easier to maintain, expand and install sewage and utility lines. Once a road surface has been installed, it remains in place for the long term.

An exemplary rainwater retention and water storage space as a road retention shows how JUMBO BLOCK® effectively absorbs and stores flood water to increase water availability while minimizing the risk of flooding.



Flood Protection through Retention

Prevention of Flooding

Planning Area: 55 x 65 m

Building Footprint: 2 x 326.6 m²

Roadways: 2 at 4.5 m, 4 at 3.75 m

Road Substructure

48 Jumbo Block Standard (13.9 m³/block)

116 Jumbo Block XL (27.6 m³/block)

82 Heavy-duty plates

Waterproofing

Available Retention Volume: 3868.8 m³

Expandable

Flood Height:

0.0 mm



Floods without Retention

Planning Area: 55 x 65 m

Building Footprint: 2 x 326.6 m²

Roadways: 2 lanes at 4.5 m, 4 lanes at 3.75 m

Available Retention Volume: 0 m³

Flood Height with Comparable Volume:

1020 mm

Retention, water storage and Infiltration basin

JUMBO BLOCK ® and safety

JUMBO BLOCK ® is smart.

Using water level data to better identify forecasts and developments due to climate change and prevent disasters.

JUMBO BLOCK ® and IoT

Water level monitoring and efficient resource management through sensors and IoT Applications:

Using water level sensors, JUMBO BLOCK® systems are able to monitor the current water level in real time.

This information may be used for automated decisions, such as:

- when to use stored water to combat droughts,
- when it might be necessary to drain water from the system, and
 - what flood protection measures need to be taken.

Security and documentation

- Complete security when documenting damage events.
- Measurement data can be made available to end users, citizens and authorities and be passed on.
- By using nameplates with QR codes, systems can be identified even when no documentation is available, such as in acute damage events and flood scenarios.

IOT makes sense for the JUMBO BLOCK® system

IoT integration into the JUMBO BLOCK® system offers numerous benefits, including:

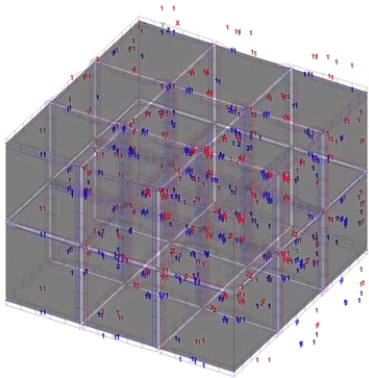
- Real-time monitoring,
 - Data analysis,
 - Remote control,
- Maintenance and diagnostics,
 - Resource efficiency and
- Ability to respond quickly to weather changes.

This is crucial given the challenges associated with water scarcity and extreme weather events.

Retention, water storage and Infiltration basin

Engineering, planning and execution

Over 30 years of experience



✓ Engineering

Development, design, production and the careful testing of our solution approaches are bundled in engineering.

This results in close coordination and innovative solutions that correspond to the latest state of the art technology and environmental standards.



✓ Planning

We have proposed solutions for many applications.

For example, in the planning of retention under heavy loads and special areas for industry, commerce and generally in drainage technology.

“Out of the box” solutions are nothing new to us, no matter how difficult the requirements are.



✓ Execution

After the JUMBO BLOCK[®] production and the purchase of additional system components, a large network of partners from civil and structural engineering is available to install and commission your systems in the best quality.

From start to finish, we rely on quality and experience.

Vernetze dich mit uns



JUMBO BLOCK[®]
ZANNI GROUP

Brauhof 12 | 44866 Bochum | Germany

Phone :+49 2327 4178 191

Fax: +49 2327 4178 192

E-Mail: jumboblock@jumboblock.de

Internet: jumboblock.app