



# ACO StormBrixx®

Geocellular Stormwater Storage Products for  
Detention, Retention, Reuse, & Infiltration Systems

Product Line Overview



ACO. creating

the future of drainage

## The ACO Group

Founded in 1946, the ACO Group is a world leader in drainage technology. Climate change sets us a challenge to react effectively with innovative solutions to new environmental conditions. With its integrated approach, ACO provides systems for professional surface water drainage, efficient cleaning, and the controlled discharge or reuse of water.

Products include:

- surface water drainage
- oil, sediment, heavy metal and grease separators
- detention, retention and infiltration systems
- flow control release products

Major innovative strengths of the ACO Group are its continuous research & development and technical expertise in the processing of polymer concrete, plastics, cast iron, stainless steel and cement concretes.

## ACO in the USA

ACO, Inc. was founded in Ohio, 1978. Since then, continuous growth in the USA has seen the company expand and build manufacturing facilities in Mentor, OH, and Casa Grande, AZ. The company has further locations in Phoenix, AZ, and Fort Mill, SC. Today, ACO USA has sales personnel across the country and an extensive distribution network through all states, the Caribbean and Central America.

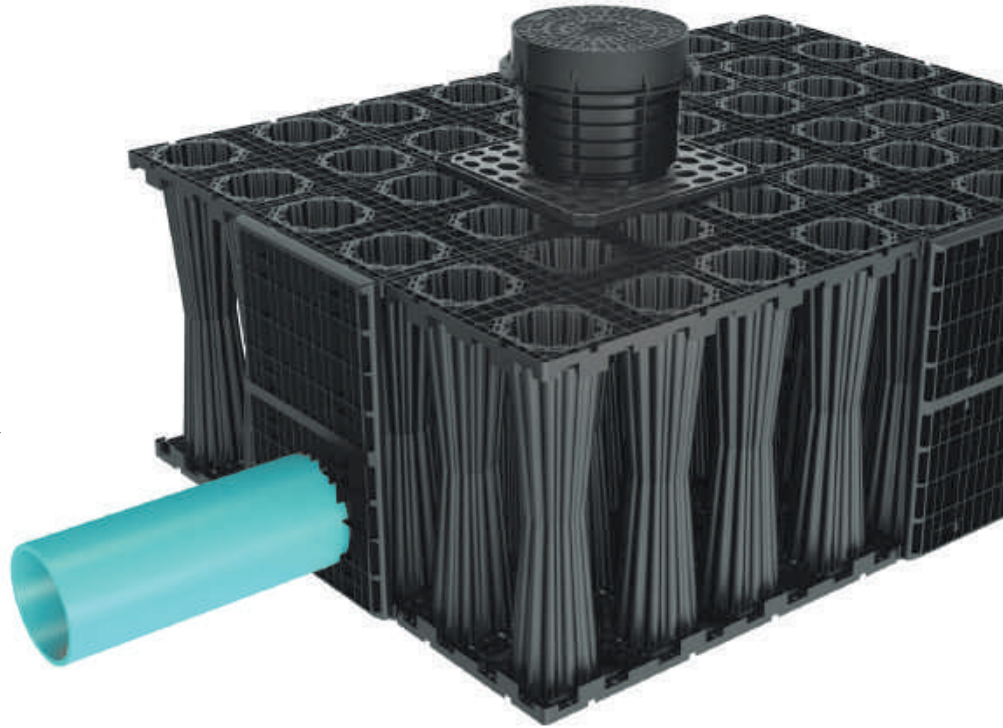
## ACO StormBrixx®

Developed after three years of meticulous research and development, the ACO StormBrixx product range is an innovative product line which is the strongest and most easily installed injection molded, geocellular product on the global market. StormBrixx SD is manufactured in the USA.



## Build & Purpose

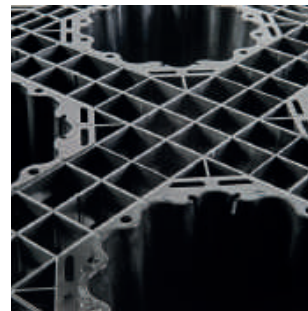
ACO StormBrixx® consists of a single fiber reinforced polypropylene body and can be assembled in a variety of ways to form an open bonded structure. The unique pillar configuration gives a high void ratio of 95%–97%. This minimizes the excavation required to achieve specified water storage capacity, reduces aggregate needed for backfilling, and improves flow characteristics of runoff through the tank. StormBrixx® benefits from a patented cell brick and cross bonding feature which provides unparalleled stability in the construction of the tank.



Recyclable polypropylene material (SD only) provides a robust and corrosion-resistant basis for a long-lasting geocellular system. The modules form a loadable structure.



The open structure of StormBrixx provides free passage through the system for inspection cameras and cleaning devices.



The pillars are also filled with stormwater. Small openings at the base of the pillars optimize water storage in the product.



Modules can be easily cut in half to allow integration into the overall system.

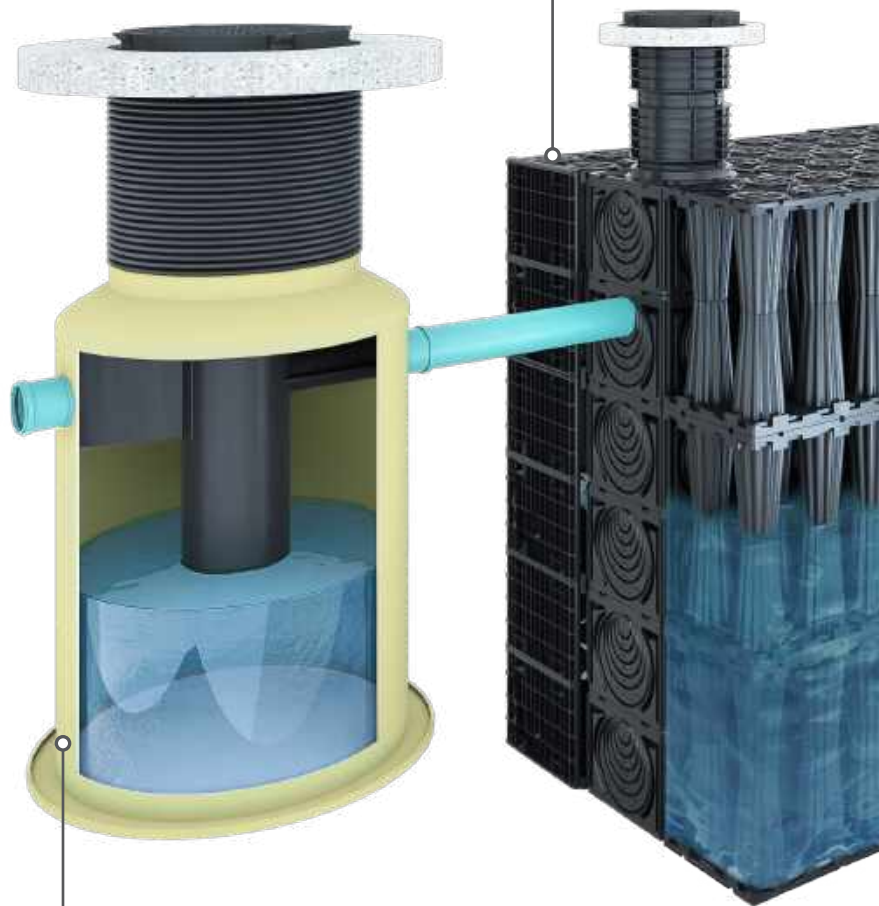
## Features & Benefits

- Proposed design flow – maximum allowable discharge (cfs, gpm, or l/sec).
- Time & cost savings - freight savings over traditional chamber systems and takes less than half the time to assemble on site compared to other modular systems.
- Flexible tank configurations to satisfy installation and site requirements.
- Patented brick-bonding feature delivers a strong and robust tank installation with maximum shear resistance.
- Silt management and control achievable through tank configuration layout.
- Open cell structure provides simple access for remote CCTV and maintenance equipment to inspect all levels and areas of the system.
- Remote Access Units provide access for cleaning, large pipe diameter inlets and silt management.
- Inspection point for camera or jetting equipment.
- Delivery, site logistics and installation are all dramatically simplified, as a result of the system's stackable design.
- 3-way layer connectors improve the structural integrity of multilayered tank structures and where brickbonding is not used.
- Supports H20–HS25 loading.

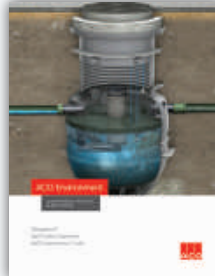


### Strength & Stability

- Brickbonding method
- Pillars aligned for even distribution
- CIRIA C680 performance tested
- Satisfies H-20 up to HS-25 loading conditions



### Pretreatment



- Needed to remove the following:
  - Sediment
  - Heavy metals
  - Hydrocarbons
- See ACO Environment literature and [www.acousa.com](http://www.acousa.com)



**Access & Inspection**

- Access shaft for equipment
- Minimal access points required
- Configurable for minimal silt accumulation
- Up to 50–60 year design life



**Ease of Installation**

- Lightweight material
- Stackable modules which snap together
- High stability during installation
- Customizable configurations



**Flow Control System**

- Release water at a controlled rate
- Reduces upstream attenuation
- Less prone to blockage than orifice plates
- Custom built to suit the chamber



**Maximum Storage**

- 95%–97% void ratio
- Minimal excavation required
- Less backfilling aggregate needed
- Improves flow of runoff



**Logistical Efficiency**

- Lightweight material
- Half-modules stack into each other
- More product load per truck
- Lower CO<sub>2</sub> emissions

# Product Comparison

SD



### Application-Driven Water Management

ACO StormBrixx SD was developed to provide a cost-effective, geocellular stormwater tank for applications where the tank will be subjected up to and including AASHTO HS-20 loading standards. These applications account for the majority of installations where the tank can be placed under landscapes, pedestrian areas, and light-duty vehicular access.



HD



### High-Strength Plastic Geocellular System

ACO StormBrixx HD was developed to provide a plastic geocellular product that can support heavy loads and heavy duty applications. StormBrixx HD addresses problems many other products encounter in these applications while ensuring a long life with no failures.



48.00" (1200 mm) x 24.00" (600 mm) x 18.00" (457 mm)	<b>Half-Module Dimensions</b>	47.44" (1205 mm) x 23.70" (602 mm) x 12.00" (305 mm)
36.00" (914 mm)	<b>Assembled Module Height</b>	24.00" (610 mm)
21.6 lbs (9.8 kg)	<b>Half-Module Weight</b>	22.4 lbs (10.2 kg)
1404	<b>Pieces per Box Truck<sup>1</sup></b>	1368
16314 ft <sup>3</sup> (462 m <sup>3</sup> )	<b>Gross Vol per Box Truck<sup>1</sup></b>	10609 ft <sup>3</sup> (300.4 m <sup>3</sup> )
14.00' (4.27 m)	<b>Max. Depth to Invert</b>	19.70' (6 m)
97%	<b>Void Ratio</b>	95%
Gross: 23.24 ft <sup>3</sup> (0.66 m <sup>3</sup> ), Net: 22.54 ft <sup>3</sup> (0.64 m <sup>3</sup> )	<b>Assembled Module Vol</b>	Gross: 15.51 ft <sup>3</sup> (0.44 m <sup>3</sup> ), Net: 14.73 ft <sup>3</sup> (0.42 m <sup>3</sup> )
1-3	<b>No. of Full Layers<sup>2</sup></b>	1-4
7310.0 lb/ft <sup>2</sup> (350.0 kN/m <sup>2</sup> ) (50.8 psi)	<b>Vertical Strength<sup>3</sup></b>	9502.9 lb/ft <sup>2</sup> (455.0 kN/m <sup>2</sup> ) (66 psi)
1462.0 lb/ft <sup>2</sup> (70.0 kN/m <sup>2</sup> ) (10.2 psi)	<b>Lateral Strength<sup>3</sup></b>	1984.2 lb/ft <sup>2</sup> (95.0 kN/m <sup>2</sup> ) (13.8 psi)
50 years	<b>Design Life</b>	60 years
6.50' (2.00 m)	<b>Max Cover Depth<sup>4</sup></b>	11.16' (3.40 m)

**Notes:**

1. (1) 53' box truck with half-modules only. One module is created from two half-modules connected together.
2. A layer is a set of modules connected together horizontally to form a tank. Extra layers may be suitable in specific applications. Please consult ACO.
3. Modules only (no backfill or top covers). ACO StormBrixx SD supports HS-20 loading. ACO StormBrixx HD supports HS-25 loading.
4. Ground improvements may be required. Ground water is not taken into account.

# askACO

Every project brings its own requirements and challenges. In addition to our products, ACO offers you our knowledge and services to jointly develop tailor-made solutions from planning to after-sales support. With our extensive network of sales and support representation, ACO strives to ensure that the needs of your project are professionally and efficiently met.



train

## Information and Further Education

At ACO, we share the expertise of the global ACO Group with architects, engineers, installers, and distributors who value quality. We invite you to benefit from it.



support

## Construction Advice and Presence

To prevent unpleasant surprises between planning and implementation stages, we advise and support you on a project-specific basis.



design

## Planning and Optimization

There are many drainage solutions to consider when planning a project. But which option leads to the most economically and technically safest solution? We help you to find the right answer.



care

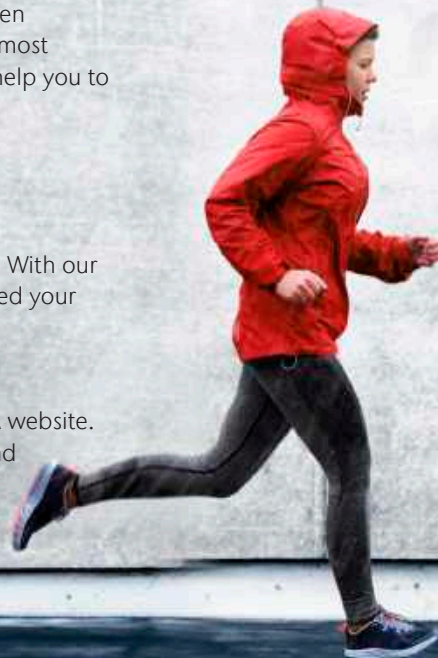
## Inspection and Maintenance

ACO products are designed and produced to last. With our after-sales support, we ensure that ACO will exceed your standards for years to come.

You will find further information for our products on the ACO USA website. This allows you to access technical data, images, specifications, and installation instructions during planning.

[www.acousa.com](http://www.acousa.com)

[www.askACO.us](http://www.askACO.us)



ACO products support the ACO System Chain



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## Surface Water Management

- ACO Drain - Commercial Trench Drains
- ACO Infrastructure - Heavy Duty Drainage
- ACO Sport - Athletic Venue Drainage
- ACO StormBrixx - Geocellular Tanks
- ACO Aquaduct - Custom Drainage
- ACO Environment - Solid & Oil Separators
- ACO Wildlife - Guidance & Passage
- ACO Self - Garden & Landscape Drainage
- ACO UtilityDuct - Linear Ducting System

## Building Drainage

- ACO Stainless - Stainless Trench Drains
- ACO BoxDrain - Stainless Floor Troughs
- ACO FloorDrain - Stainless Point Drains
- ACO Pipe - Stainless Push-fit Piping
- ACO ShowerDrain - Bathroom Drainage

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