

# **Stormwater Management Solutions**

#### SAVE LAND SPACE. PROTECT WATER RESOURCES.

Stormwater Management addresses the impact of stormwater runoff on urban and rural development. It is an important consideration for projects where there are needs related to water detention and infiltration, flood mitigation, and rainwater drainage.

With increased urbanization, underground stormwater systems are highly effective at managing stormwater runoff. These systems are designed to capture and store stormwater underground,

allowing it to slowly filter into the ground over time. This helps to reduce the amount of stormwater runoff that enters streams, rivers, and other bodies of water, which can help to reduce flooding and erosion. In addition, underground systems can be designed to filter out pollutants and other contaminants, which can help to improve water quality.

Compared to conventional stormwater management systems, like above-ground retention ponds and swales, underground stormwater management systems offer the following benefits:

- More efficient use of space: beneficial in urban areas where land is at a premium.
- Greater sustainability by reducing the amount of stormwater runoff that enters streams, rivers, and other bodies of water.
- Groundwater recharge.
- Reduce the risk of water shortages during periods of drought, protecting water resources.

Stormwater management is site-specific, and no single solution can be recommended. Detail and precision are imperative to the planning, designing, and construction phases.

# HIGH PERFORMING PRODUCTS BACKED BY COMPREHENSIVE SERVICE

Whether you are a water resources engineer working on a stormwater project or a civil contractor bidding on a project, Titan can help you. We offer underground stormwater management solutions with comprehensive service giving you peace of mind that your site and investment are protected.



#### **PRODUCT SUPPLY**

Stormwater management systems are available from all Titan locations. We provide competitive quotes for every component of your stormwater management project.



#### **DESIGN ASSISTANCE**

Our stormwater management technical team provides preliminary layout designs. This includes calculations, CAD drawings, and specifications to ensure that your project meets performance criteria and regulatory standards.



#### **INSTALLATION SUPPORT**

Our technical expertise extends to supporting contractors on proper installation of stormwater management systems. This helps ensure performance and longevity of a system, and overall project success.



### StormTech® Arch Chamber

The StormTech® underground stormwater arch chamber system is known as one of the most revolutionary engineered stormwater management solutions on the market. Designed to be used under parking lots, roads, playgrounds, and other facilities, the StormTech® chamber system helps save valuable land space by increasing useable land while also protecting water resources by adhering to sustainability standards.



#### Features:

- Efficient StormTech® arch chamber System saves valuable land space by increasing useable land while also protecting water resources by adhering to sustainability standards.
- Integrated Lifting Features StormTech® arch chambers allow for safer and faster installation.
- Durable StormTech® arch chamber System can handle heavy loads and offers an impressive 75-year design life.
- Various Sizing StormTech® arch chambers are available in various sizes making them suitable for commercial, residential, or highway stormwater drainage needs.

#### **Benefits:**

- Volume Reduction Arch chamber systems improve volumetric reduction of stormwater through infiltration.
- 1. Patented Isolator® Row Stormwater quality is provided through patented Isolator® Row (TSS, TP, and TPH removal).
- Ease of product use Easily Constructed, Inspected, and Maintained.
- ASTM Product Standard Designed to ASTM & AASHTO specifications.

# **Applications:**

#### **Core Stormwater Applications**

- · Stormwater runoff reduction
- Water sustainability
- Rainwater detention
- Underground stormwater retention
- Underground stormwater infiltration

#### Other

- Rainwater harvesting
- · Enhancing green infrastructure



**End Cap** 





Chamber & End Cap Components



# StormTech® Arch Chamber

### **Product Options:**

#### StormTech® MC-4500

- Size (L x W x H): 52" x 100" x 60" (1321 mm x 2540 mm x 1524 mm)
- Chamber Storage 106.5 ft3 | 3.01 m3

#### StormTech® MC-3500

- Size (L x W x H): 90" x 77" x 45"
   (2286 mm x 1956 mm x 1143 mm)
- Chamber Storage 109.9 ft3 | 3.11 m3

#### StormTech® MC-7200

- Size (L X W X H) 83.4" X 100" X 60" (2120 X 2540 X 1524 mm)
- Chamber Storage 175.9 ft3 (4.98 m3)

#### StormTech® DC-780

- Size (L x W x H): 85.4" x 51.0" x 30.0" (2,170 mm x 1,295 mm x 762 mm)
- Chamber Storage 46.2 ft3 | 1.30 m3

#### StormTech® SC-310

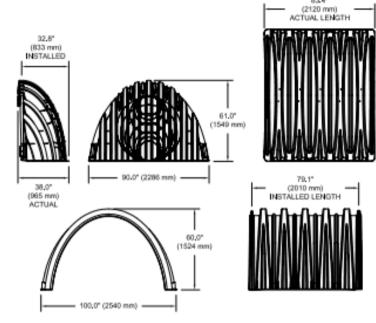
- Size (L x W x H): 85.4" x 34" x 16" (2170 mm x 864 mm x 406 mm)
- Chamber Storage 14.7 ft3 | 0.42 m3

#### StormTech® SC-310-3

- Size (L x W x H): 85.4" x 34" x 16"
   (2170 mm x 864 mm x 406 mm)
- Chamber Storage 14.7 ft3 | 0.42 m3

#### StormTech® SC-160LP

- Size (L x W x H): 85.4" x 25" x 12" (2169 mm x 635 mm x 305 mm)
- Chamber Storage: 6.85 ft | 30.19 m3



MC-7200 Chamber (Not to scale)



### StormTank® Modules

The StormTank® Module is an above-par subsurface modular stormwater management system used to regulate stormwater flow and provide large-volume storage. Created respectively for project professionals to achieve a quick turnaround and load-rated for extreme applications like heavy trucks or under-fire access roads.



#### **Features:**

- Available in five heights, including 12-, 18-, 24-, 30-, and 36-inch.
- Nominal footprint: 18" x 36"
- Box structured and stackable.
- Easy to install (assembled in two minutes or less)

#### **Benefits:**

- Fully factored HS-25 load rating.
- Extensively tested in a full-scale installation setting.
- Maximum 97% void space.

### **Product Options:**

#### StormTank® Module 20 Series

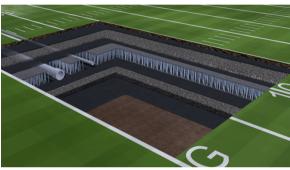
Efficient for use under standard applications such as parking lots and athletic fields.

#### StormTank® Module 25 Series

Offers maximum strength and utilizes area effectively. Stackable and has a range of column heights.

### **Applications:**

- Stormwater runoff reduction
- Water sustainability
- Rainwater detention
- Underground stormwater retention
- Underground stormwater infiltration
- · Rainwater harvesting
- · Enhancing green infrastructure
- · Flood mitigation



Infiltration System



Beginning of Installation



**Completed Installation** 



# FlexStorm Pure™ Inlet Filter

FlexStorm Pure™ inlet filters are the recommended option for permanent inlet protection and stormwater runoff control. FlexStorm™ Pure inlet filters, made of stainless steel, will fit any drainage structure and are available with site-specific filter bags that provide varying degrees of filtration.

#### **Features:**

- Custom-designed stainless-steel frameworks can be made to fit into any drainage system.
- The flow and bypass rates fulfill the inlet requirements.
- Operates below grade, with a bypass to the drain area if the bag becomes filled.
- Installed and maintained by a single worker; no extra equipment is required.

#### **Benefits:**

- Stainless steel frame provides extended service life.
- Easily replaceable filter bags.
- Meets strict removal requirements.
- All bags rated >80% removal efficiency of street sweep-size particles.
- Optional FXP/PCP bags can be used for hydrocarbon removal when required.

# **Applications:**

- Car Washes
- Commercial
- Loading ramps
- Industrial
- Gas stations
- Parking lots
- Dock drains
- Maintenance



**Inlet Filter** 



Inlet Filter



# **BayFilter™ Purification Filter**

FBayFilter™ is the highest-quality stormwater purification filter currently available. It is efficient, effective, economical, and simple to use. The BayFilter™ method uses tried-and-true sand filtering principles to get rid of pollutants like sediments, oil, metals, organics, and nutrients. Due to the unit's modular design, both large and small sites can get the precise system they require by sizing the units according to the site's requirements.



#### **Features:**

- The most efficient filtration improves pollution prevention.
- More than 80% of Total Suspended Solids (TSS) and 65% of turbidity is removed by the device.
- Available in different configurations (manhole filter, precast vault filter, and cast-in-place vault filter).
- With enhanced media, it is possible to remove 65% of the overall phosphorous load.
- The filters include an optional drain-down cartridge function, which reduces stand water even after the siphon has broken and the cartridges are not engaged.

#### **Benefits:**

- Custom-made to meet the needs of specific projects.
- Cartridges are recyclable.
- · Reduced life cycle cost.
- Low maintenance costs.
- Prevents the system from becoming toxic during dry periods.
- Excellent abrasion and corrosion resistance.



**Purification Filter** 



**Purification Filter** 



Titan Environmental supplies proven geosynthetics and specialty civil engineering construction solutions designed to extend the life of vital infrastructure while protecting precious natural resources.

We push limits with creative solutions. Our product lines include geomembranes, geotextiles, geogrids, primary & secondary containment systems, stormwater management solutions, drainage solutions, MSE wall & slope systems, and erosion & sediment control products. We service the road construction, agricultural, waste management, water resources, mining, oil and gas, and hydroelectric industries that support essential infrastructure worldwide. By providing engineers with a resilient foundation for building better, we've become North America's fastest-growing-end-to-end geosynthetics supplier, fabricator, and installer.

We do more than help manage environmental impact, we help improve how that's done. With a team of audacious innovators and agile problem-solvers, we're trusted to adapt to change, respond quickly, and support you at every stage. When you build with Titan, you strive for your very best.



