



ChamberMaxx<sup>®</sup>  
Open-Bottom Infiltration



# The experts you need to solve your stormwater challenges



**Contech is the leader in stormwater solutions, helping engineers, contractors and owners with infrastructure and land development projects throughout North America.**

With our responsive team of stormwater experts, local regulatory expertise and flexible solutions, Contech is the trusted partner you can count on for stormwater management solutions.

## Your Contech Team



### **STORMWATER CONSULTANT**

*It's my job to recommend the best solution to meet permitting requirements.*



### **STORMWATER DESIGN ENGINEER**

*I work with consultants to design the best approved solution to meet your project's needs.*



### **REGULATORY MANAGER**

*I understand the local stormwater regulations and what solutions will be approved.*



### **SALES ENGINEER**

*I make sure our solutions meet the needs of the contractor during construction.*

**Contech is your partner in stormwater management solutions**



## Maximize Stormwater Storage in Shallow Footprints – ChamberMaxx®

*ChamberMaxx® can be installed by hand without the need of heavy equipment.*

The ChamberMaxx corrugated, open-bottom plastic infiltration chamber system allows you to meet stormwater runoff reduction requirements and maximize available land space by providing economic infiltration below grade. By utilizing subsurface infiltration, space is preserved for development or green space, runoff is reduced or eliminated, and groundwater recharge can occur.

ChamberMaxx maximizes storage volume in a small footprint, and its low profile shape is ideal for sites with shallow footprints. Each chamber provides 47 ft<sup>3</sup> (1.3 m<sup>3</sup>) of storage.

The integrated end caps eliminate the expense associated with loose end caps that are common on many chamber systems and add to chamber strength.

ChamberMaxx is manufactured per ASTM F 2418 and is structurally designed to exceed HS-20/HS-25 live loads in accordance with AASHTO LRFD design specifications for stormwater chambers.

# ChamberMaxx<sup>®</sup> Features and Benefits

FEATURE	BENEFIT
Each chamber provides 47 ft <sup>3</sup> (1.3 m <sup>3</sup> ) of storage	Maximized storage space
Low profile (51" span x 30" rise x 91")	Allows for infiltration on sites with shallow footprint
Integrated end caps	Structural integrity and fewer parts to handle during installation
Manufactured per ASTM F 2418	Strength and durability
Lightweight	Installed by hand without the need of heavy equipment



## APPLICATION TIPS

- Best practice designs for subsurface infiltration include pretreatment to reduce cost and frequency of maintenance while ensuring the infiltration capacity of the facility.
- Look for chamber systems that have integrated end caps to reduce installation time

# ChamberMaxx<sup>®</sup> Applications

## Bioretention

ChamberMaxx is designed with a minimum of 6" stone above and below the units. The ChamberMaxx can help make bioretention practical by storing 75.1 CF per unit, including storage in stone, before discharging back into the surrounding soil.

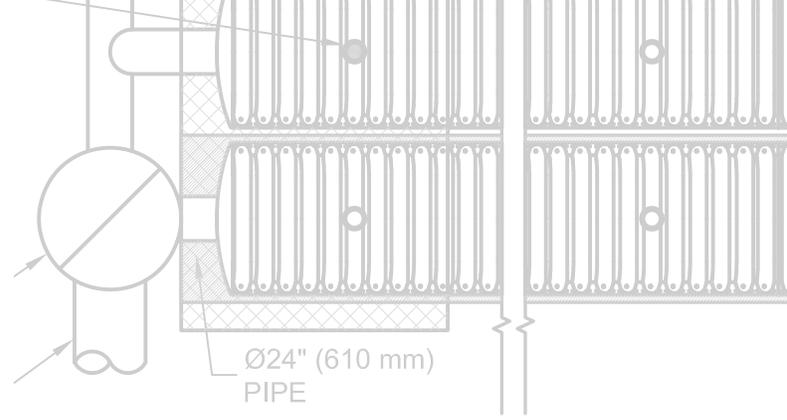
## Subsurface Infiltration

The open-bottom plastic chamber allows infiltration into surrounding soil, effectively achieving runoff reduction objectives often required by an LID design. By utilizing subsurface infiltration, space is preserved for development, runoff is reduced or eliminated and groundwater recharge can occur. The ChamberMaxx is ideal when you need to maximize storage capacity in a shallow footprint.



Practical for sites with marginal soils

# ChamberMaxx<sup>®</sup> System Sizing



The ChamberMaxx system combines middle chambers, which are open on both ends, with start and end chambers, which include an integral end wall. Water is stored in both the chamber and in the void space in the surrounding stone backfill providing 75.1 cubic feet of storage per chamber. The ChamberMaxx system can be configured with up to 24-inch diameter (0.61 m) inlet/outlet manifold.

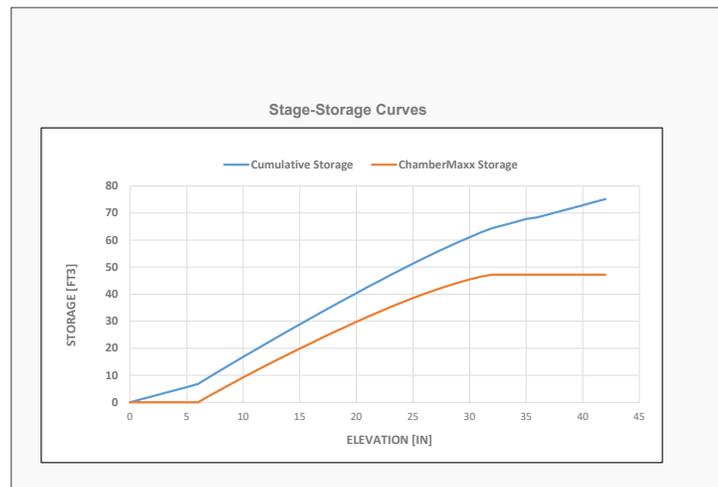
CHAMBER PART	WIDTH (IN) (M)	HEIGHT (IN) (M)	WEIGHT (LBS) (KG)	ACTUAL LENGTH (IN) (M)	INSTALLED LENGTH (IN) (M)	STORAGE VOLUME (CF) (M <sup>3</sup> )	INSTALLED STORAGE VOLUME (CF) (M <sup>3</sup> )*
Start	51.4 (1.31)	30.3 (0.77)	83.0 (37.65)	98.4 (2.50)	96.2 (2.44)	50.2 (1.42)	78.1 (2.21)
Middle	51.4 (1.31)	30.3 (0.77)	73.0 (33.11)	91.0 (2.31)	85.4 (2.17)	47.2 (1.34)	75.1 (2.31)
End	51.4 (1.31)	30.3 (0.77)	76.0 (34.47)	92.0 (2.34)	88.5 (2.25)	46.2 (1.31)	74.1 (2.10)

\* 6" (152 mm) of stone above and below chamber, 5.6" (142 mm) chamber spacing and 40% porosity.

Integral end caps eliminate loose end caps and add to chamber strength.

## ChamberMaxx<sup>®</sup> Flow Routing

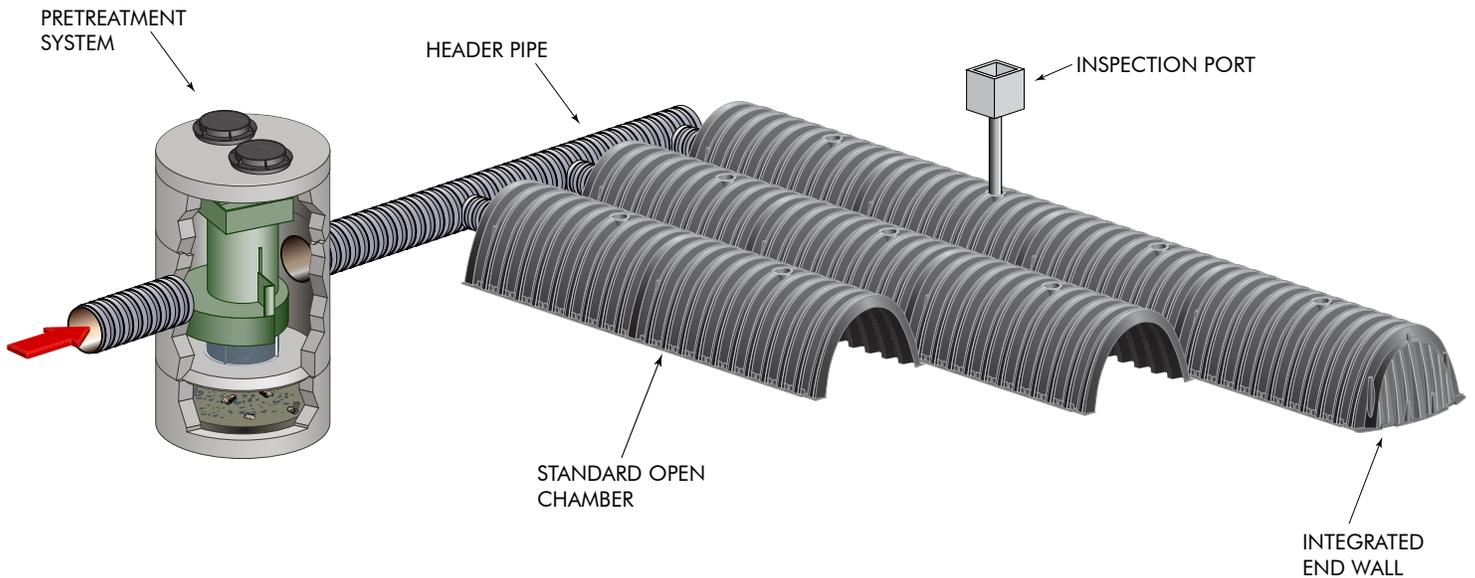
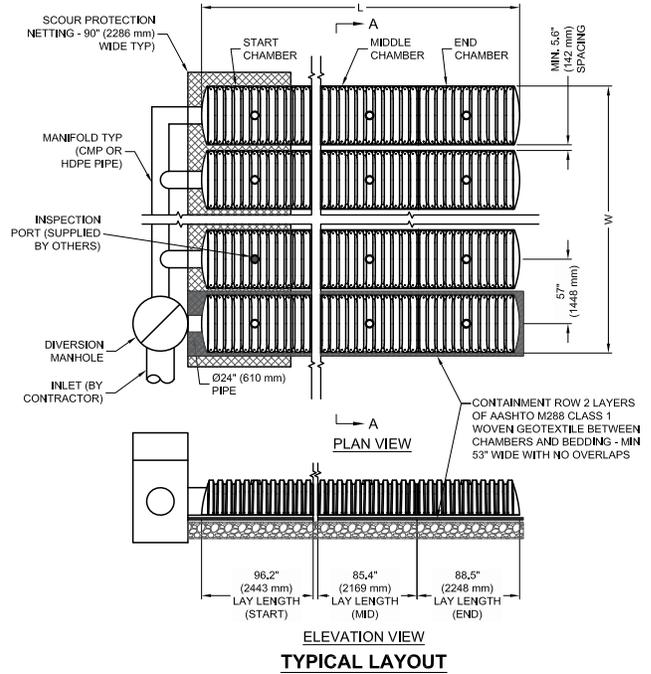
Proper design of any detention system typically requires that flow routing be performed. Engineers at Contech can be a valuable resource when designing a ChamberMaxx retention system. Typically, stage-storage curves like those shown are utilized in the analysis. Contech stage-storage calculator is available for download on [www.ContechES.com](http://www.ContechES.com). This information can simply be inserted into common hydrology/hydraulic software such as HydroCAD, HydroFlow, PondPack or TR20. This makes a flow routing design with ChamberMaxx just as simple as an aboveground pond design.



# ChamberMaxx<sup>®</sup> Configuration Option

## Optional Containment Row

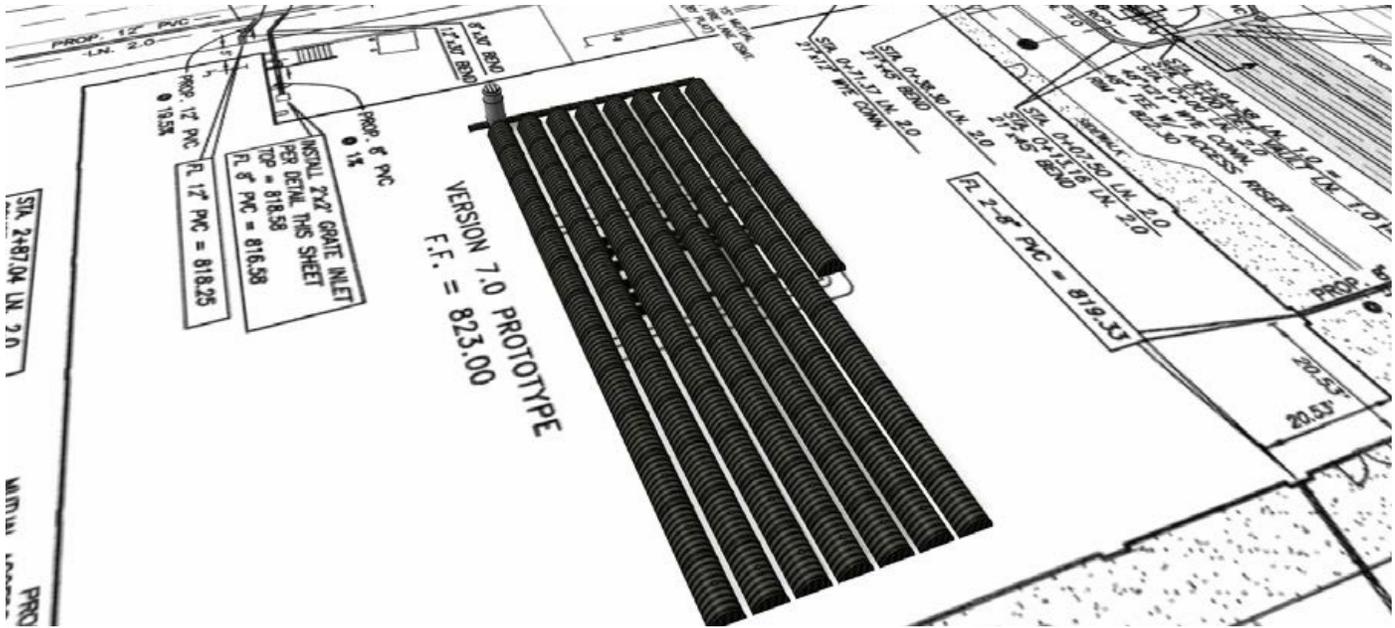
Hydrodynamic separators and filtration devices provide the most efficient sediment removal and extended maintenance interval, and are recommended as pretreatment for ChamberMaxx systems. The ChamberMaxx Containment Row should be considered as basic, low cost treatment strategy and should only be considered where sediment loading to the ChamberMaxx system is assumed to be minimal. The Containment Row is designed to provide TSS removal by direct screening.



The open-bottom chamber system allows for runoff reduction and economic infiltration.

**Include pretreatment for your best practice designs**

# Design Your Own Detention System (DYODS®)



Learn More:

[www.ContechES.com/designcenter](http://www.ContechES.com/designcenter)

## Quickly prepare designs for estimates and project meetings ...

Engineers are always looking for new ways to quickly prepare designs for estimates and project meetings. We have a tool that does just that... the Design Your Own Detention System (DYODS®) tool.

Part of the Contech Design Center, this free, online tool fully automates the layout process for stormwater detention and infiltration systems. The tool allows you to design systems using corrugated metal pipe (CMP), ChamberMaxx® plastic chambers, or DuroMaxx® steel reinforced polyethylene (SRPE). You can also create multiple systems for each project while saving all project information for future use.

- “Drag and drop” feature allows users to customize layout
- A 2D/3D design environment with high-resolution graphics including BIM model output
- Optimize designs for the storage requirement or maximize storage for a given footprint
- Import a PDF site plan, scale and design a system over the plan and view the overlay in 2D
- Instant access to customized, project specific drawings, and CAD files
- Ability to co-workers or Contech design engineers to your project with the new Collaborator feature

**CONTECH**<sup>®</sup>  
**DESIGNCENTER**  
DESIGN MADE EASY

A free, online tool that fully automates the layout process for stormwater detention systems.

# A partner you can rely on



STORMWATER  
SOLUTIONS



PIPE  
SOLUTIONS



STRUCTURES  
SOLUTIONS

Few companies offer the wide range of high-quality stormwater resources you can find with us — state-of-the-art products, decades of expertise, and all the maintenance support you need to operate your system cost-effectively.

#### THE CONTECH WAY

Contech provides innovative, cost-effective site solutions to engineers, contractors, and developers on projects across North America. Our portfolio includes bridges, drainage, erosion control, retaining wall, sanitary sewer and stormwater management products.

#### TAKE THE NEXT STEP

For more information: [www.ContechES.com](http://www.ContechES.com)

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