

# AquaCell

Stormwater Management System



An Orbia Building &  
Infrastructure business.

# Product Description

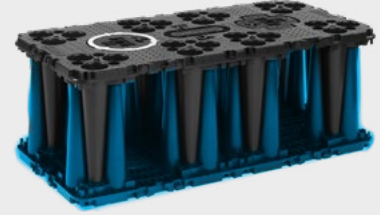
Geocellular units for detention and infiltration of rainwater.

The optimal solution for fast installation and total access for inspection and cleaning.

Standard Configuration



Extra strong Configuration



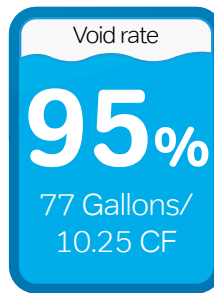
## Technical information

Standard Configuration	Height (in)	Length (in)	Width (in)	Displacement (CF)	Storage (CF)	Void Ratio
SC 1.0	16.73"	47.24"	23.62"	10.81 CF	10.25 CF	94.87%
SC 2.0	32.48"	47.24"	23.62"	20.98 CF	20.00 CF	95.33%
SC 3.0	48.23"	47.24"	23.62"	31.15 CF	29.74 CF	95.49%
SC 4.0	63.98"	47.24"	23.62"	41.32 CF	39.49 CF	95.57%
SC 5.0	79.72"	47.24"	23.62"	51.49 CF	49.23 CF	95.62%
SC 6.0	95.47"	47.24"	23.62"	61.66 CF	58.98 CF	95.65%
SC 7.0	111.22"	47.24"	23.62"	71.83 CF	68.72 CF	95.67%
SC 8.0	126.97"	47.24"	23.62"	82.00 CF	78.47 CF	95.69%

Extra Strong Configuration	Height (in)	Length (in)	Width (in)	Displacement (CF)	Storage (CF)	Void Ratio
EX 1.0	18.11"	47.24"	23.62"	11.70 CF	10.84 CF	92.68%
EX 2.0	36.22"	47.24"	23.62"	23.39 CF	21.68 CF	92.68%
EX 3.0	54.33"	47.24"	23.62"	35.09 CF	32.52 CF	92.68%
EX 4.0	72.44"	47.24"	23.62"	46.78 CF	43.36 CF	92.68%
EX 5.0	90.55"	47.24"	23.62"	58.48 CF	54.20 CF	92.68%
EX 6.0	108.66"	47.24"	23.62"	70.18 CF	65.04 CF	92.68%
EX 7.0	126.77"	47.24"	23.62"	81.87 CF	75.88 CF	92.68%
EX 8.0	144.88"	47.24"	23.62"	93.57 CF	86.72 CF	92.68%

# Hydraulic function

AquaCell is a geocellular unit used to build subsurface rainwater detention, retention, infiltration and storage tanks. It's the optimal solution for faster installation and full access to inspection and cleaning activities.



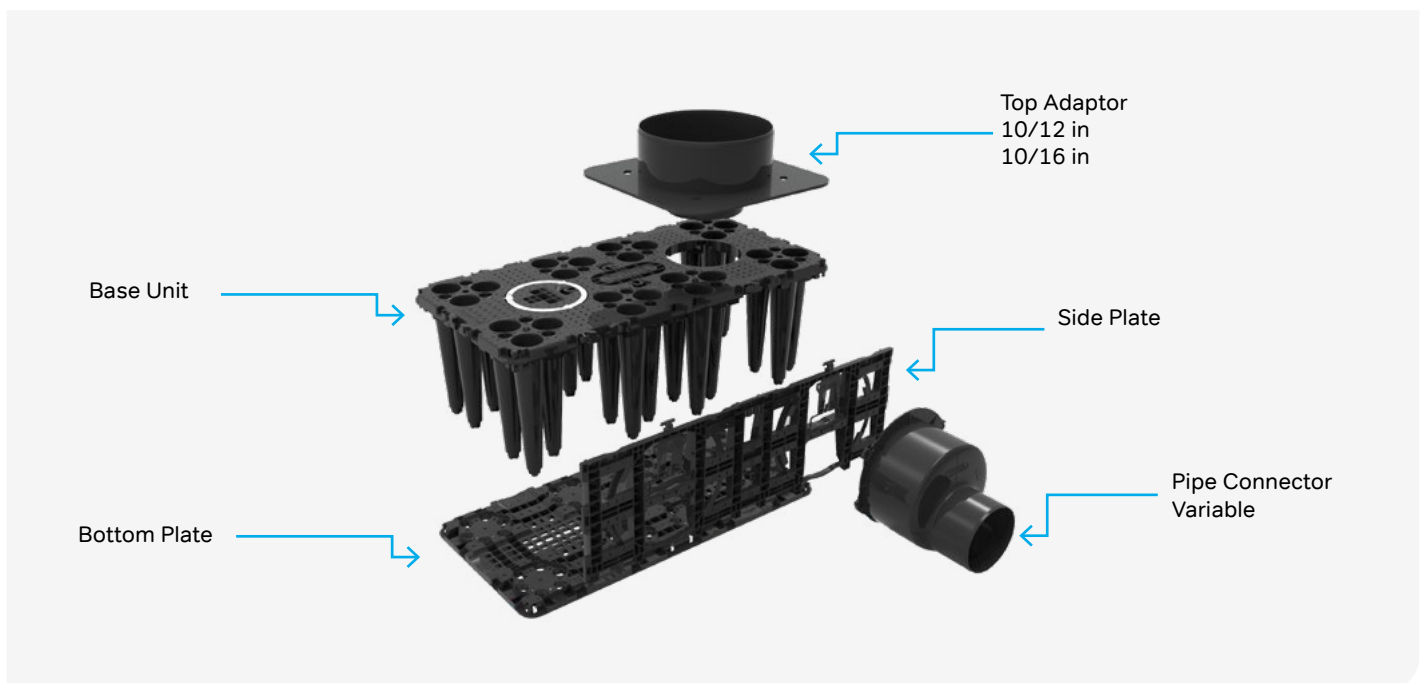
Water storage for reuse



Infiltration to recharge groundwater



Temporary storage to prevent flooding



Accessibility		
Vertical access	10 in	250 mm
Width inspection channel (bottom)	8 in	200 mm
Accessible surface area	54%	

General	
Material	Recycled polypropylene
Color	Black
Connectors	Integrated
Standard	EN17152-1

## Weight, pipe connections and number of layers

Base Unit Weight (lbs)	24
Pipes NPS (in)	6" to 24"
Maximum number of layers (with a minimum cover depth of 12 in for landscaped areas)	8 layers

## Performance and installation

Installation speed <sup>1</sup>	1500 ft <sup>3</sup> / hour/ per person
Coupling mechanism	Manual – Push fit
Bedding material (base)	Sand, Stone or other approved backfill (Compacted and leveled material)
Minimum depth (base)	4 in
Percent Compaction (SP) <sup>2</sup>	90% - 95% - 98%

**Note:** (1) Measured performance for cell assembly, obtained with material supplies and trained personnel on-site. Based on tank size (20' L x 10' W x 4' H)  
 (2) Percent compaction varies according to the type of loads (no traffic, light traffic and heavy traffic, respectively).

## Installation depth by load<sup>3</sup>

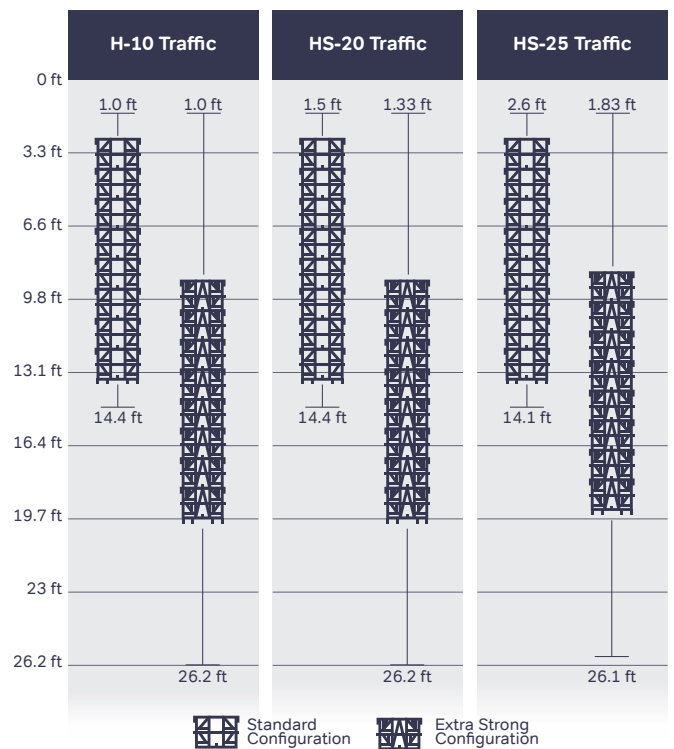
Minimum/ (Max Burial Depth)	Standard	Extra strong
H-10 Traffic Loading	12 in. / 14.4 ft.	12 in. / 26.2 ft.
HS-20 Traffic Loading	18 <sup>4</sup> in / 14.4 ft.	16 <sup>5</sup> in. / 26.2 ft
HS-25 Traffic Loading	30 in / 14.1 ft.	22 in. / 26.1 ft.

**Note:** (3) Each project must conduct a stress analysis to ensure the system's stability based on the acting loads, soil type and water table involved. Wavin recommends a minimum cover of 12 inches over the top of the tank. For details on use in the standard or extra strong versions, or if you need further information, contact your Designated Technical Marketing Consultant.

(4) 18 in based on 10"x10" contact area

(5) 16 in is based on 9"x9" contact area

### Maximum Installation Depth



# AquaCell in the US

## Boca Chica, TX | August, 2024

- **Application:** Detention under parking lot at carwash
- **Capacity:** 2,440 CF
- **Assembly time:** 1 day



## Athens, GA | 2024

- **Application:** Detention system under parking lot
- **Capacity:** 24,023 ft<sup>3</sup>
- **Assembly time:** 2 days



## Nashville, TN | 2024

- **Application:** Detention system at landscaped area
- **Capacity:** Tank 1 (7,973 ft<sup>3</sup>); Tank 2 (7,205 ft<sup>3</sup>)
- **Assembly time:** Both tanks, 1 day



## Houston, TX | 2024

- **Application:** Detention under parking lot
- **Capacity:** 20,629 CF
- **Assembly time:** 2 days

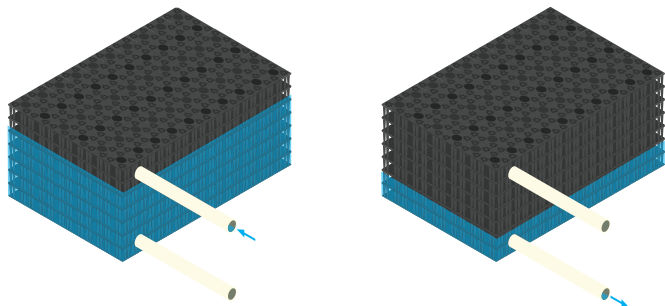


## Contact

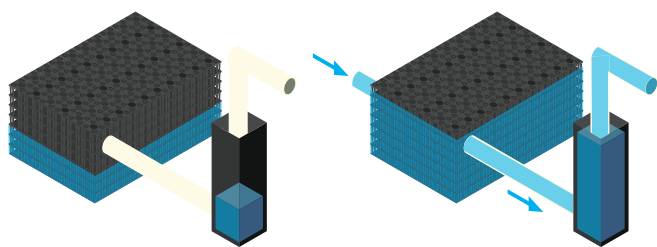


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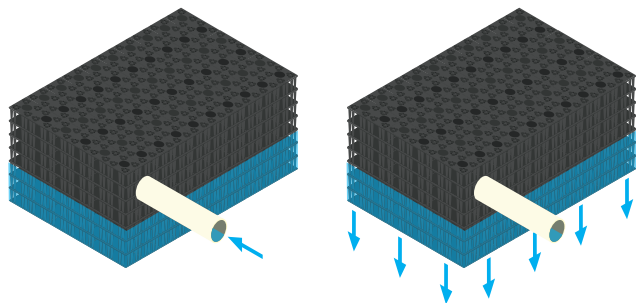
## Retention and Detention System



## Reuse System



## Infiltration System



## System Benefits



### Environmental:

- Ideal for rainwater reuse.
- Reduces the water footprint.
- Does not contaminate the subsoil.
- Does not alter water characteristics.
- Low installation impact.



### Structural:

- On-site performance is superior to concrete and metal.
- Manual installation, no accessories required.
- The solution can be tailored to any geometric structure.
- It is ideal for areas with limited access and heavy rainfall.
- Access for inspection and cleaning activities.



### Urban Development:

- Mitigates the effects of flooding.
- Ideal for sustainability certifications.
- Reduces dependence on potable water.
- Reduces saturation of drainage networks.
- Alternative source for non-potable uses.



### Product Quality:

- Long service life.
- Lightweight and highly structurally resistant.
- Large storage capacity: stackable cells.
- Resistant to water and soil activities.

**Wavin**

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