

R-TANK[®] **DRAINAGE** **SOLUTIONS**



VERSATILE SUPPORT FOR DRAINAGE APPLICATIONS

The strength, capacity and infiltration capabilities of R-Tank products aid in meeting critical drainage requirements and offer a myriad of benefits.



GREEN/BLUE ROOFS

City centers often face an extreme challenge: designed before modern regulations, these areas are often covered in structures that span sidewalk to sidewalk. By utilizing every buildable inch of real estate, these projects lack the means to provide stormwater treatment.

In these situations, developers turn to green roofs to provide open-space amenities and manage stormwater storage. A new trend in the industry is to capture and retain the rainfall as part of a blue roof.

R-Tank's panel products provide a low-profile drainage cell capable of promoting high-capacity rainfall storage and providing the necessary lateral drainage for captured rainfall to reach discharge drains. This combination makes R-Tank a perfect product to reduce cross-section weight compared to drainage stone, increase stormwater storage and decrease discharge rates.



PERMEABLE SURFACES

Permeable surfaces, such as permeable interlocking concrete pavements, allow designers to create surfaces capable of both supporting vehicular loads and promoting natural infiltration.

In most cases, permeable surfaces allow water to pass through a space between blocks. Once through the surface, the rainfall can enter the stone base and infiltrate into the native soils. In some cases, these native soils have low infiltration rates that reduce their ability to keep up with higher intensity storms.

R-Tank's panel products provide the necessary strength to support vehicular loads while providing high-capacity storage space to reduce the likelihood of stormwater runoff. By providing high-capacity void space, R-Tank retains the runoff during intense rainfall events and allows the soil to continue infiltrating the accumulated runoff as the intensity of the storm recedes.



POROUS GUTTER LINES

In urban and suburban environments in the US, most roadways are bordered by a raised curb. This curb not only delineates the edge of the roadway but can also serve storms and convey runoff to nearby inlets.

In most of these cases, there is a space between the edge of the travel lane and the curb. This area is often referred to as the gutter line and may even double as parking spaces. Though these areas might not be frequented by traffic, they can be subjected to occasional loads from buses or trash vehicles. This requires any subsurface storage products to be capable of supporting high loads (HS-20 to HS-25).

R-Tank, in conjunction with porous and permeable surfaces, provides a high-capacity storage space to reduce the likelihood of stormwater runoff entering traffic lanes, alleviates ponding after storms and promotes infiltration of stormwater.



SPORTS FIELDS

Whether installing a natural or synthetic sports field, drainage is a vital part of any recreational space. Poor drainage is a leading cause of sports field damage and decreased performance life.

By incorporating proper surface grading, the majority of runoff can be directed off the playing field. Still, proper drainage goes well beyond the surface conditions. Today, most turf fields incorporate a subsurface drainage system to address groundwater and ensure the playing surface stays dry.

R-Tank's panel products provide structural support for surface loads, including emergency equipment, while promoting vertical and lateral drainage. By incorporating R-Tank in the base cross-section, designers can reduce excess moisture that otherwise could lead to damaged playing surfaces and a reduction in usable field time.

R-TANK DRAINAGE PRODUCTS

BENEFITS

High Capacity

- 95% void internal area (NV)
- 90% void internal area (XD)

Strength

- Supports traffic loading
- Module options for HS-20 and HS-25 rating with cover depths from 6" to 10"

Design and Construction Versatility

- Modules can be combined into various shapes to use space efficiently and effectively
- Module heights vary from 2" to 30"

Increased Infiltration and Exfiltration

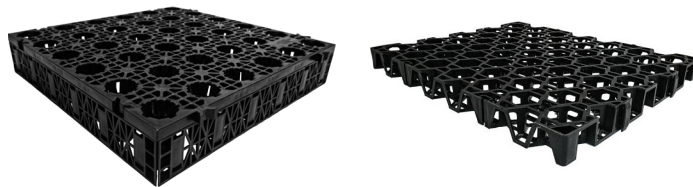
- 90% surface open area to promote infiltration
- Increases groundwater recharge, reducing post-construction discharge volumes

Lightweight and Quick To Install



- Installed by hand; no cranes required
- Can be cut to fit around obstructions and existing utilities

Recycled Content

- Manufactured with post-industrial recycled polypropylene

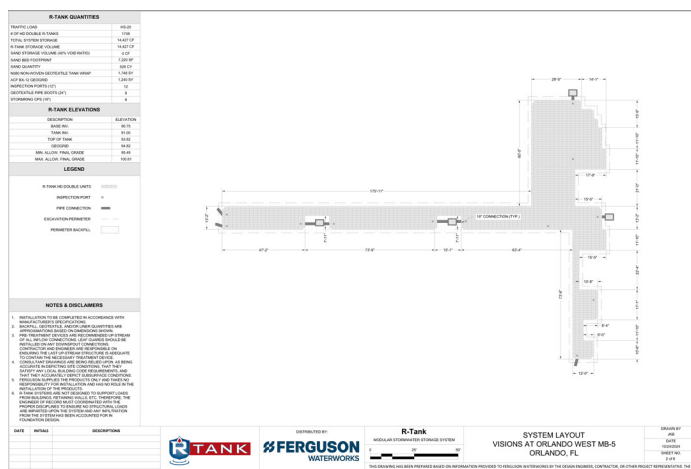


R-TANK SPECIFICATIONS

SPECIFICATIONS			
		 	
Item	Description	Value	Value
Minimum Height	Shortest unit height	3.54"	1.97"
Maximum Height	Tallest combined height	7.08"	29.55"
Void Area	Volume available for water storage	95%	90%
Surface Area Void	% of exterior available for infiltration	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2318	190 psi	220 psi
Unit Weight	Weight of plastic per cubic foot of tank	6.70 lbs/cf	7.55 lbs/cf
Service Temperature	Safe temperature range for use	-14 to 167° F	-14 to 167° F
Recycled Content	Use of recycled polypropylene	90%	100%
Minimum Cover	Cover required for HS-20 loading	6"	6"
Maximum Cover	Maximum allowable cover depth	9.99'	9.99'

R-TANK SUPPORT SERVICES

Our regional engineers and designers are experts in both local regulations and innovative urban green street applications and can help develop site-specific solutions using one or a combination of our products. Our team produces high-quality custom layouts and details to support your permitting and construction efforts. From AutoCAD to HydroCAD, we have a variety of design tools to help you move through the permitting process efficiently.



Contact your local sales associate or visit **FERGUSONWATERWORKS.COM** to get started.

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