

Product Description

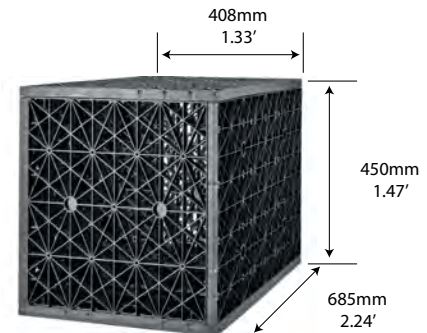
The Atlantis® D-Raintank® is a modular underground storage system developed through years of research and development that provides a highly efficient method to manage storm water. This subsurface system can be constructed to hold any volume required being limited only by the area available. The Atlantis tanks are assembled from small plates and large plates. Depending on load and design, the quantity of small plates can be increased to up to seven for each module to handle higher loading.

The subsurface nature of the Atlantis® D-Raintank® module frees up space for surface landscaping, driveway or parking lot use while meeting the storm water detention requirements of your local municipality. It is ideal for the construction of infiltration tanks, water re-use tanks and subsurface channels. Sediment can be removed by pretreating storm water by surface infiltration or by purification units used in combination with a lower tank (forebay) installed at inlet with a maintenance port and other maintenance ports dispersed every 50 feet.

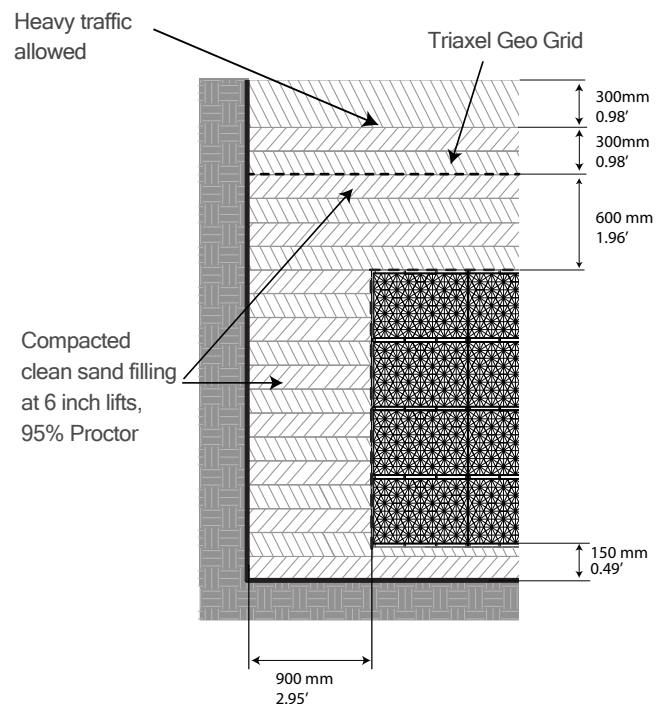
Installation

The installation begins with site excavation, base preparation and compaction to 95% of standard proctor. The base is then covered with a layer of angular stone and sand to a depth of 100 mm. A nonwoven geotextile and /or geomembrane are installed on the base. The Atlantis® D-Raintank® modules are assembled to the desired configuration and placed within the excavation. Piping is installed and then the geotextile and/or geomembrane are wrapped around the installed modules. Place clean sand backfill around the sides of the tanks in 150 mm lifts and compact to 95% and then place sand above the tanks and compact.

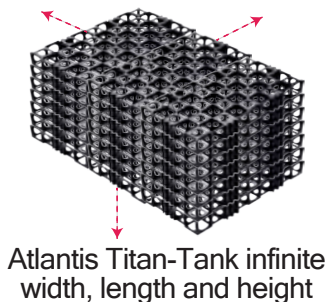
Only light hand operated compaction equipment shall be used within one meter of the tanks horizontally and vertically. An RX 1200 geogrid is installed at 300 mm over the structure and extended beyond the edges by 900 mm or as required by the plans to a maximum recommended of 2.287 m. For a repair installation refer to Atlantis. Refer to and follow project specific drawings and specifications.



Atlantis® D-Raintank®



Laminar Compaction



Maintenance

The Atlantis® D-Raintank® Storm Water Storage System is sustainable and works through infiltration. Surfaces of filter areas should be inspected on a regular basis, particularly after every major precipitation event. Accumulated debris, gross pollutant and/or sediment should be removed.

D-Raintank® - Metric Values

	Mini		Single		Double		Triple		Quad		Penta	
Width	16"	408mm	16"	408mm	16"	408mm	16"	408mm	16"	408mm	16"	408mm
Length	30"	685mm	30"	685mm	30"	685mm	30"	685mm	30"	685mm	30"	685mm
Height	9.5"	240mm	17.7"	450mm	34.6"	880mm	51.5"	1310mm	68.5"	1740mm	83"	2170mm
Tank Volume	2.47ft ³	0.07m ³	4.49ft ³	0.13m ³	8.82ft ³	0.25	13.06ft ³	0.37	17.30ft ³	0.49	21.54ft ³	0.61
Storm Water Storage Volume	16.9gal	64L	31.7gal	120L	61.8gal	234L	91.9gal	348L	122gal	462L	152.1gal	576L
Number of Plates (large /small)	2/4/2		4/4		7/8		10/12		13/16		16/20	
Tank Weight	8.81lbs	4kg	14.3lbs	6.5kg	26.4lbs	12kg	38.5lbs	17.5kg	52.9lbs	24kg	90.3lbs	41kg
Void Space	Approximately 95% void (90% for 7 plate tank)											
Material	100% PP recycled geocomposite resin											
Biological, Chemical Resistance	Unaffected by molds, algae, natural soil-borne bacteria or most chemicals											
Approx. Underground Temperature Range	48°F (±9C)						39.2°F (±4C)					

Range H-20 to H-100 + Static Load Crush Vertical Compressive Strength

Atlantis® D-Raintank®		Pedestrian 4 Plate Tank			5 Plate Tank	7 Plate Tank
H-20	Ultimate Static Load Strength (Ton per m ² / PSI)	34PSI	23.9 t/m ²	234,42 KN/m ²	Car parking lots	Access road
Static Load - apply a Safety Factor of 2 on material						
Dynamic load during installation and post use should be calculated by the engineer						

Minimum and Maximum Static Cover Depth Over Atlantis® D-Raintank®

Minimum Fill Cover 3 feet / 0.900m	NOTE Minimum compacted fill before any large equipment is allowed to load. Traffic and conditions to engineer details.
Maximum Fill Cover tank 6.5 feet / 2m	

H-40+ Titan Tank Static Compressive Strength on Crush

52mm HD Module	182 PSI (USA)	1254.84 KN/m ²	128 t/m ² (Canada)
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H-60+ Hercules Tank

53mm HD Module	394 PSI (USA)	2716.53 KN/m ²	277 t/m ² (Canada)
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Construction, Traffic and Seasonal Loading (flash foods, snow, permafrost, etc)

The Atlantis System can be used where greater loads are anticipated. These may be areas trafficked by commercial and heavy goods vehicles that includes all vehicles in excess of 4,409lbs (2500kg) gross weight. However, specific design advice should be sought from Atlantis Corporation for these situations.

Design information required to carry out a comprehensive design for these circumstances should include type of vehicle with maximum anticipated vehicle weight.

Parking Lots and Road Safety Factors should be calculated by the Engineer in charge (5 to 7 internal plates).

11 Tons (for a Safety Factor of 2 plus expected cover).

Side and Back Fill - only structurally clean sand & gravel, compacted at 6" lift at 95% proctor.

NOTES:

The design strength above is based on the manufacturer's installation recommendation and to a minimum Safety Factor of 2 on ultimate product crush and compressive strength. An additional dynamic load safety factor should be calculated by the design engineer.

Atlantis tank modules must be installed in vertical dimension to insure maximum strength.

For deep installations or H20 / H35 or more traffic loads consult Atlantis at info@atlantiscorp.com.au.

For more complex or large designs Atlantis Aurora can participate in a consortium as an Environmental Design Company.

DISCLAIMERS

The general conditions of sale and delivery terms of Atlantis Corporation Pty Ltd. and its associated companies are as follows:

The consignee or buyer is responsible, where applicable, for any project design, abusive installation, faults or for any damage or mishandling of the products once the products leave the factory or warehouse.

After the products leave the factory or warehouse, public liability is the hands of the buyer or consignee and end user and must be covered by their own insurance and any guarantee/warranty is the sole responsibility of the consignee.

Whilst Atlantis Corporation PTY Ltd is a manufacturer under ISO2001 that provides general guidelines for the installation of Atlantis products and systems, based upon best up to date practice in good face, all such installations are the sole responsibility of designers, installers or end users, and the requirements for the installations should be checked and coordinated by competent professionals.

Under these terms Atlantis Corporation PTY Ltd and its employees are free of any liability or to any other person or entity under any contract, tort, strict liability, negligence or other legal or equitable theory for any special, incidental, consequential, or indirect damages, loss of goodwill or business profits, loss of revenue, work stoppage, or of any and all other damages, loss, or exemplary or punitive damages whether such party was informed or was aware of the possibility of such loss or damage. these liabilities, including any third party claims, are all exclusive responsibilities of the consignee.

Intellectual Property

Granted Patents in the USA

Utility Patents

US 5.810.510 Underground Drainage System

US 6.648.549 Modular Drainage Channels

US 6.679.946 Drainage Structure

US 7.056.058 Transport Corridor Drainage System

US7.686.540 Transport Corridor Infiltration System

Design Patents

US D 571.023 Paver

US D 555.809 Paver

US D 596.698 Large Tank Plate

US D 596.699 Small Tank Plate