# IDEAL TANK & SYSTEM SOLUTIONS



### For stormwater and rain harvesting systems.

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# **IDEAL TANK & SYSTEM SOLUTIONS**

## It's easy to find your ideal tank solution at APD.

Make finding your tank requirements easy, by making use of APD's helpful technical support. By asking about your specific needs, we'll find the solution that's perfect just for you. APD's range of Tank and System solutions for above and below grounds will ensure whatever your requirement, whether its for Stormwater Detention, Rainwater Harvesting or Chemical Storage and Bunding, you can be sure you'll find exactly what you need right here. Call APD, and find your ideal tank solution now on (09) 263 7741.

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For more information call (09) 263 7741

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### The APD product range includes:

- Underground Water Retention/ **Detention Systems**
- Rain Harvesting Systems
- Chemical Storage Tanks
- Open Top Process Tanks
- Boat and RV Tanks
- HVAC Ducting suitable for chemical applications and council swimming pool environments
- Piping Systems for chemical, water and waste water plants



### Modular Strength that Fits.

When you need underground stormwater detention or retention but are constrained by:

- Limited vertical depth to stormwater discharge point
- Requirement for deep burial (up to 2m cover)
- Limited space that needs to store a large volume of water

Our newest Tank Solution StormLite<sup>3</sup> does it all with its unique APD design.

### Trafficable

Designed to support loads up to 28 tonnes/sgm.

Solutions strong enough to support up to 2m of ground cover and/or withstand heavy traffic loads, so long as the overall 28 tonnes/sqm load limit is not exceeded.

### **Protective Exterior Shell for a solution** that lasts

As New Zealand's leading plastic tank fabricators we know what it takes to make a robust tank shell.

We've combined our expertise and high quality materials to produce a 6mm thick shell that securely holds the modular tank elements together and is over 7x the thickness of the protective layer used by other modular systems. Every weld on every tank is leak tested during production.

### Modular solutions, for when it has to fit.

When your retention or detention tank has to fit underground, either very deep, in a shallow space, and/ or for vehicles to drive over, APD's NEW StormLite<sup>3</sup> has your ideal solution. Its unique modular rectangular system is extremely durable and watertight, using the same reliable 6mm polyethylene sheet that is used on hazardous-rated chemical tanks. Installation has never been this easy, arriving on-site complete and ready-to-go. All you have to do is specify your requirements, then fill-in over the top of the highly durable delivered tank.

### **Arrives Pre-Assembled**

So it can be installed quickly and safely. Our StormLite<sup>3</sup> tank is delivered complete with spigots for an inlet and vent pipe ready to connect to a manhole. Tanks are supplied standard with lifting lugs, to simplify handling on site. Fast installation saves costly additional man hours on site, keeping the time spent in

### **Configuration Options**

Minimum Tank Height: 458mm (1 Module) Maximum Tank Height: 2150mm (5 Modules) Maximum Buried Depth: 3m from base of tank Maximum Cover Over Top of Tank: 2m Maximum Tank Width: Approx. 4500mm (Requires Special Transport)

Maximum Tank Length is dependant on the height and width. Please contact APD for advice.

Minimum Cover to Finished Ground Level: Grass Install: 300mm Driveway / Trafficable Install: 600mm

### **Connecting Spigots & Inspection Ports**

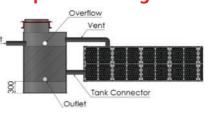
Standard with all StormLite<sup>3</sup> tanks are a tank connection spigot and a vent spigot for connection of the tank to a manhole chamber as shown in the illustration on the right.

Add on options are:

- Additional connection spigots at standard pipe diameters up to 300mm (315mm OD).
- Inspection ports up to 150mm diameter (160mm OD).
- Bore pumps and access ports up to 150mm diameter.

### Manhole Chamber and Silt Trap for Drainage

The StormLite<sup>3</sup> tank must be connected to a manhole chamber as per the diagram, to limit silt intake into the tank and as a connection point for all inlets, overflow and orifice/outlet.



StormLite<sup>3</sup> was developed because we were approached repeatedly by Engineers and Drainage Contractors for low vertical profile tanks, to be buried at depths greater than 1 metre and tanks to maximize volume storage in limited spaces.

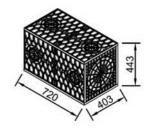
- the excavation site to a minimum; making for a safer and efficient work environment.

### **Modular Tanks**

That fit any environment and give you the flexibility you need.

The internal structure of StormLite<sup>3</sup> is composed of ProTank modules, arranged to utilise space effectively, fitting your volume requirements and site layout.

ProTank modules lock together vertically, up to 5 high, and pack together horizontally to form the shape of the tank.





### The Easy, Complete System.

### The RainWorx<sup>®</sup> range gives you:

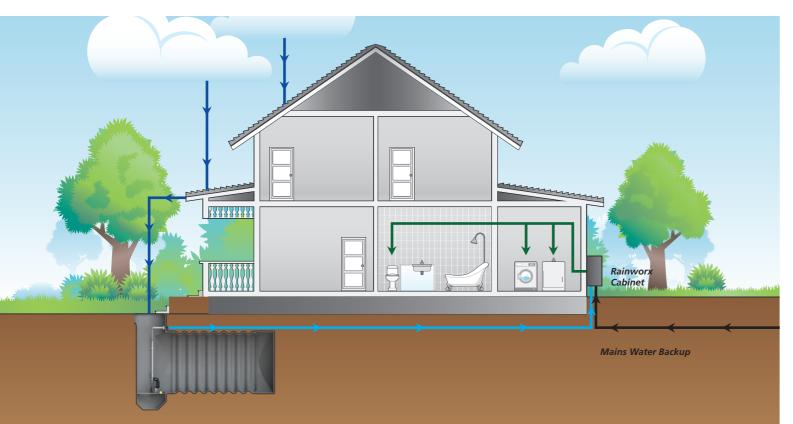
**Complete package:** Along with the StormLite tank we supply the pumps, controllers, pipe work and covers ready to connect to your plumbing and to integrate with the public water supply.

Quality parts: We are NZ's leading plastic tank fabricators, providing the highest quality. All our tanks come with a design life of 25 years and our quality tank design offers long term peace of mind with maximised service life for all parts.

Flexible options: Every household's needs are unique and because our tanks are made to order you can have the right set up. You only pay for what you need.

Efficient and intelligent system: APD RainWorx Systems automatically switch to mains pressure water if the retention tank is empty or if mains power fails. Our unique tank design means 100% of the tank capacity is used while still meeting council requirements.

Ready when you want it: Made to order in just 2-5 days



### **RainWorx for StormLite Underground Tanks**

Whether you have a modern urban home or a classic villa, whatever your needs, we have the right solution for you. APD RainWorx systems for StormLite underground tanks include pre-fitted internal pipework and pump platform, plus submersible pump and wall mounted RainWorx cabinet.

### APD's exclusive tank design comes with:

- Pre-fitted internal pipework Avoiding the hassle and Health & Safety risks of tradesman entering confined spaces for installation
- Pump platform Prevents the pump from sitting in the silt trap to ensure only clean water is pumped into the house.

### The ideal rain harvesting solution is easy.

You'll never run out of water, using APD's smart RainWorx system. It automatically switches to mains supply once storage levels become low enough, or when there is a power cut. This unique system comes in a ready-to-go package, with options to suit above and below ground tanks, we'll even provide a template for the plumber and electrician for a simple installation. Start using free water. Get the easy, complete system from APD now on (09) 263 7741.

### Installing a stormwater detention tank to meet council requirements?

The APD RainWorx System harvests and recycles your valuable rainwater for toilets, washing clothes, watering the garden and washing your car.

With the tank installed underground, usable outdoor space is maximised and visible obstruction is removed.

Fast installation saves costly additional man hours on site, keeping the time spent in the excavation site to a minimum; making for a safer and efficient work environment.

### **RainWorx System Packages**

• User friendly status monitors

- Packages to suit underground or above ground tanks
- Testable back flow protector (double check valve)



Submersible Pump Option + Tank Internal Pipework & Pump Platform

### **RainWorx Pump Kits for Above Ground Tanks**



Surface Mounted Pump With Cover

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For more information call (09) 263 7741

APD can provide customised commercial packages for medium to large scale jobs: Apartment Complexes, Residential Developments etc.

- Inline filter, all fittings and bracketing
- Isolation valves
- Custom packages available on request



Pre-Assembled RainWorx Cabinet - Wall Mountable



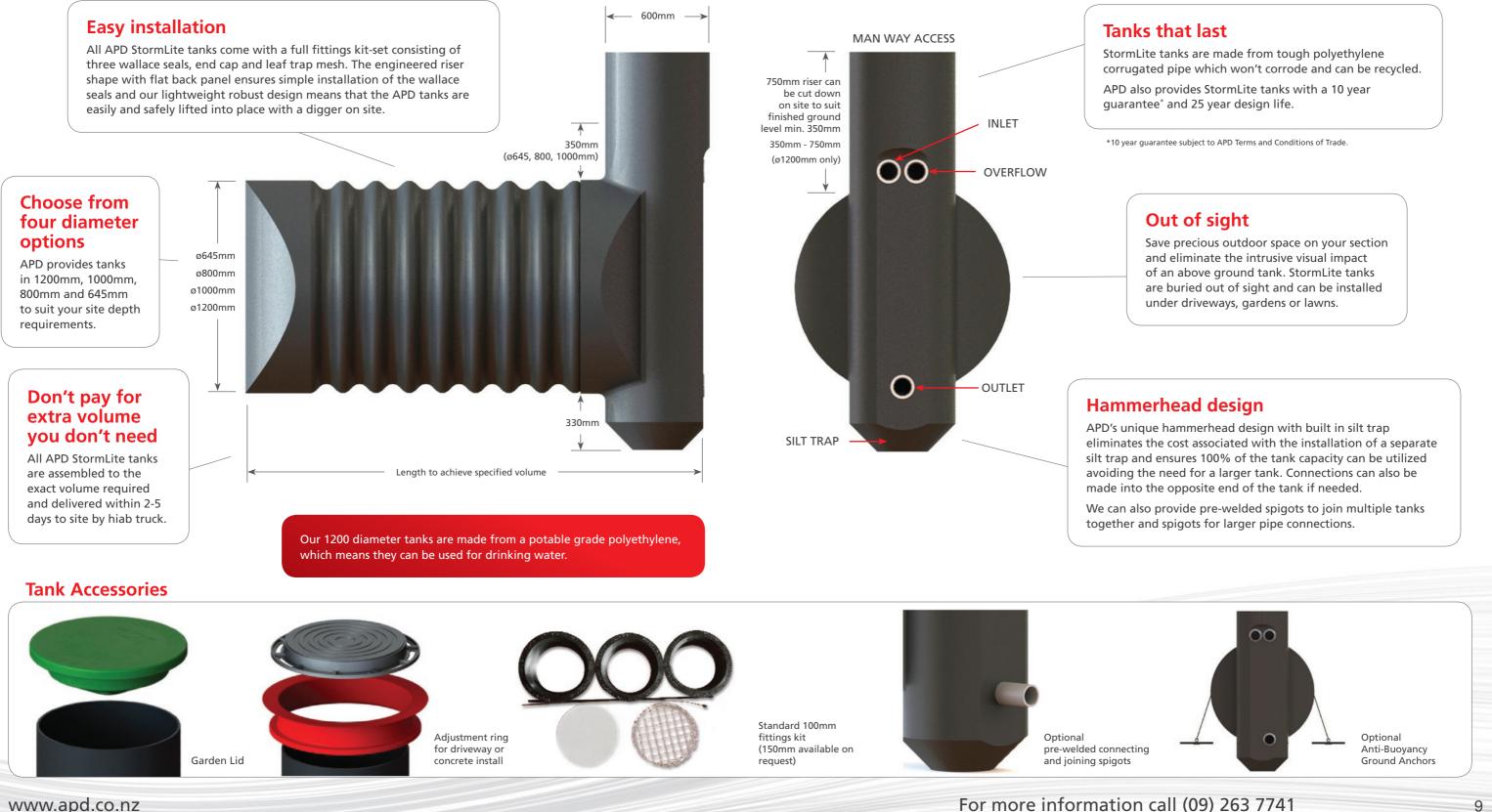
Pre-Assembled RainWorx Cabinet - Wall Mountable



### Made to Order Economy.

### The economical choice, made light and strong.

At around 250 kilograms, a 5000 litre StormLite® water tank is a mere fraction of the weight of concrete tanks. This means it can be moved around site with only a small digger. Designed strong, StormLite can go under driveways, carparks, and grass. Tell us your volume requirement, and our make-to-order service will ensure your Stormlite tank adheres to Council regulations, while making your drainlayer's job a breeze. Make the affordable choice, with made to order economy. Call APD now on (09) 263 7741.





### Made to Order Economy.

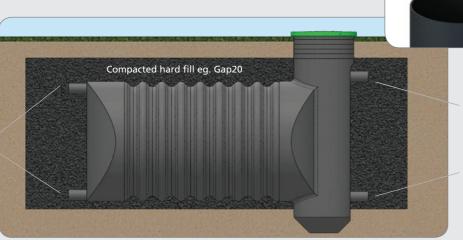
### **Residential Lawn Installation**

### Standard Cover:

### 150mm Compacted Hard Fill + 200mm Soil = 350mm Total

- 1. For 1200 diameter tanks, the riser can be cut down to suit finished ground level.
- 2. Ground Anchors: If your site requires less than 350mm cover and/or has a high water table please contact APD.
- Detailed engineering drawings are available on request from APD.

Optional Connection Locations



**Driveway Installation** 

### **Cover Requirements:**

Compacted Hard Fill + Concrete Thickness = 350mm Min Total Cover 200mm Thick Reinforced Concrete Over Tank - Residential Driveway 250mm Thick Reinforced Concrete Over Tank - Commercial Driveway

1. For 1200 diameter tanks, the riser can be cut down to suit finished ground level.

- 2. Ground Anchors: If your site requires less than 350mm cover and/or has a high water table please contact APD.
- Detailed engineering drawings are available on request from APD.

Optional Connection Location





Standard Inlet/Overflow Location

Standard **Outlet Orifice** Location

(Detention Only)

Standard Inlet/Overflow Location

Standard **Outlet** Orifice Location (Detention Only)

# **Stormlite Rectangular**

### **Above Ground Detention / Retention Tanks**

Above ground Rectangular tanks are available from APD for those projects where standard detention tanks just won't work. Great for placing under houses and decks, these tanks can be custom made to fit between piles and structural supports. Tanks can be partly buried if required.

### **Specialist Design that lasts**

The APD rectangular Stormlite tank was specifically engineered by our in-house team based on international standards for fabricated tanks.

Made from heavy duty polyethylene sheet, with internal baffles for added strength and support the tank has been optimised to provide a robust solution.



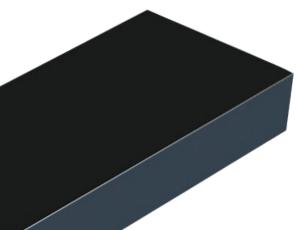
### **Dimensions**

Standard height is up to 800mm. Both the width and length of our rectangular tanks can be sized to suit the site requirements.

### **Options**



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### **Simple Installation**

No ground excavation is required other than levelling and compacting the area where the tank is to be sited, assuming site soil meets the requirements of NZS3604:2011 classification of 'Good Ground'.

### **Options**

APD offers a choice of lid types to suit installation. There is also an optional addition of silt traps and optional re-positioning of a man way.

We can also include access and risers if required.

See below for examples.

## **Custom Built Above Ground Tanks**

### **Cylindrical Tanks - Custom Built**

Made to order tanks for special requirements

## **Standard Above Ground Tanks**

### **Cylindrical Detention / Retention Tanks**

Made from a potable grade polyethylene these tanks are a perfect solution for your above ground water storage needs. Whether it be for stormwater detention/retention or a full household or building water supply, our range of sizes and colours should meet your requirements.

### **Intelligent Design**

Our designs allow quick, straight forward installation of the tank, reducing cost and the need for multiple contractors.

The tank can be easily moved to cater for future needs.

### 500L to 60,000L capacity

Depending upon your needs, APD's tanks can be designed and built up to at least 60,000L. Tanks can be used for detention, retention (rain harvesting), drinking water or any combination of the above.

### Sizes from 600L to 30.000L



### Long Lasting

APD's tanks all have a 25 year service life and in some cases longer. The grade of material used will out perform all other tanks and won't crack, corrode or rot like other tank materials.

### **Designed to suit you**

Because APD designs and builds to order, the tank will be built to the dimensions you require, rather than standard dimensions like other suppliers. All of APD's tanks are seismically rated so you have peace of mind the tank will endure whatever is thrown its way -speak to our helpful team.

### **Fixtures and fittings**

All of APD's tanks are provided with the fittings you require for your site. This can be multiple inlets and outlets and virtually any size. Our fittings are welded to the tank and reinforced as required so there is no chance of the fittings leaking. APD's tanks are all hydrostatically tested before being delivered to ensure you have a trouble free installation.

APD's above ground tanks can be used to store water for drinking, to support your bathroom water use or for watering the garden and can be manually filled for potable water or used in conjunction with RainWorx to collect rainwater runoff from your home.

### **1000L Slimline Tank Modules**

Size: 870mm Diameter x 2000mm High Can be joined together to achieve your required volume using the supplied joining kit.







# **WasteWorx**<sup>®</sup> PUMPING STATION SOLUTIONS

### For Flexible System Design.

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Out of sight and built to suit your requirements. APD's pumping station's unique design safely removes Wastewater or Stormwater from your site with minimal maintenance requirements.

### **Robust, Solid Design** Based on our time proven underground detention tank

designs, this robust tank has been designed using FEA analysis to comply with ARMACORP 15 requirements for underground septic tanks. The tank has a large capacity which reduces pump cycling & wear providing a much areater buffer in the case of power failures or other issues. APD's design allows the maximum output of waste from the tank.

### Get the most out of your outdoor space

The tank lid is all that can be seen above ground so there are no ugly landmarks & you can utilise more of your garden area. At the same time the tanks are protected from damage from the elements.

### **Flexible Options**, **Straightforward** Maintenance

The type of tank we use allows flexible installation options meaning we can choose the pump and controller to best suit your needs. Internal components are easy to remove including pump, level sensing systems & motor controls adding up to one of the easiest to service & maintain units on the market.

Freeing you up to get back to focusing on what matters - enjoying your home.

### **Easy installation**

With WasteWorx there is no need to worry about your tank rising out of the ground in soggy conditions thanks to the WasteWorx Anti Buoyancy foot that comes as standard with each tank. Our unique design eliminates the costly need for setting in concrete - a financially and environmentally friendlier solution.

### Range of pumps to suit application



### Flexibility in design for storm water, grey & black water systems.

A pumping station from APD can provide your ideal solution, thanks to our flexible system design. We start with a range of pumps, including grinder and vortex pumps that will meet your exact flow and pressure requirements. If your design, for instance, calls for two pumps, or a specific brand of pump, no problem. The standard robust, lightweight polyethylene tank volumes are 800 and 1,200 litres, plus we can also make any size you need. Finally, we provide a pump controller, that includes a high level alarm, and built-in overload protection.

Get more flexibility when designing your pumping station, call APD on (09) 263 7741.

### **Commercial & Custom applications available**

Looking for something a little different? APD offers customised solutions too, which may include large volumes and multiple / high spec pump options.

APD's tanks can be built to any size and by installing our commercial pump controllers you can accommodate complex requirements while staying in control of your buildings needs.

If you are building a Kindergarten, office space or large commercial or community building APD has the ideal solution for your needs.

### Free Pump Station Design Service

Tell us your volume and site requirements and we will design a cost effective pump station solution to suit your needs.

### Standard WasteWorx Controller IP67 Suitable for individual households

- Manually Start/Stop pump
- Alarm feedback system
- Overload protection

### Commercial WasteWorx Controller

Suitable for sites with multiple tanks

All standard controller features PLUS

- Review status of multiple pumps on one site Frequency and duration of tank uses
- Control pump output Allowing for times of higher and lower usage

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	WasteWorx Putring starting solutions For Flexible System Design.	Pump Station
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•	PUMP OVERLOAD	
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# IDEAL TANK & SYSTEM SOLUTIONS

# Talk to the experts at APD for your ideal tank solution.



### **Richard Ruddell**

Richard is responsible for quoting the more complex detention/ retention solutions for residential and commercial applications. Richard is our resident technical expert for Stormwater and Rain Harvesting solutions. Richard is available anytime to discuss your projects from the early planning phases to help ensure the most efficient solution is achieved.

Ph: 09 280 3799 mobile: 021 402 805 email: richard@apd.co.nz



### Wayne Smith

Wayne is responsible for Detention tank, Rain Harvesting systems and pumping station sales to the residential and commercial markets. Wayne is available anytime for onsite meetings and consultations to help formulate the most effective solution to meet your needs.

mobile: 0272 387 684 email: wayne@apd.co.nz



### **Craig Litherland**

Craig is responsible for Detention tank, Rain Harvesting systems and pumping station sales to the residential and commercial markets. Craig is available anytime for onsite meetings and consultations to help formulate the most effective solution to meet your needs.

mobile: 0272 033 910 email: craig@apd.co.nz

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