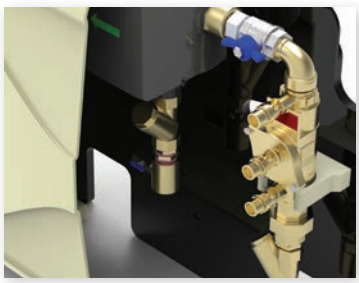
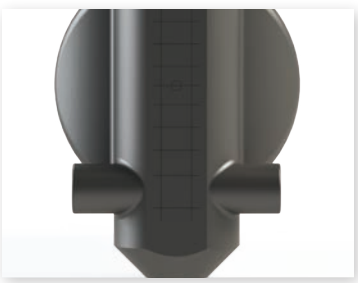
APD

IDEAL TANK & SYSTEM SOLUTIONS

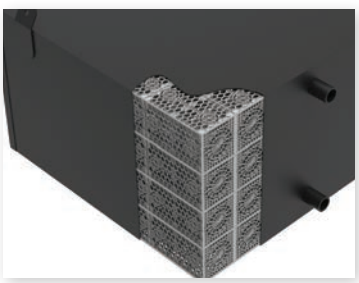
REVOLUTIONISING WATER MANAGEMENT SOLUTIONS FOR THE NEW ZEALAND ENVIRONMENT











www.apd.co.nz

APD

IDEAL TANK & SYSTEM SOLUTIONS

www.apd.co.nz

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 it's 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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THE APD PRODUCT RANGE INCLUDES:

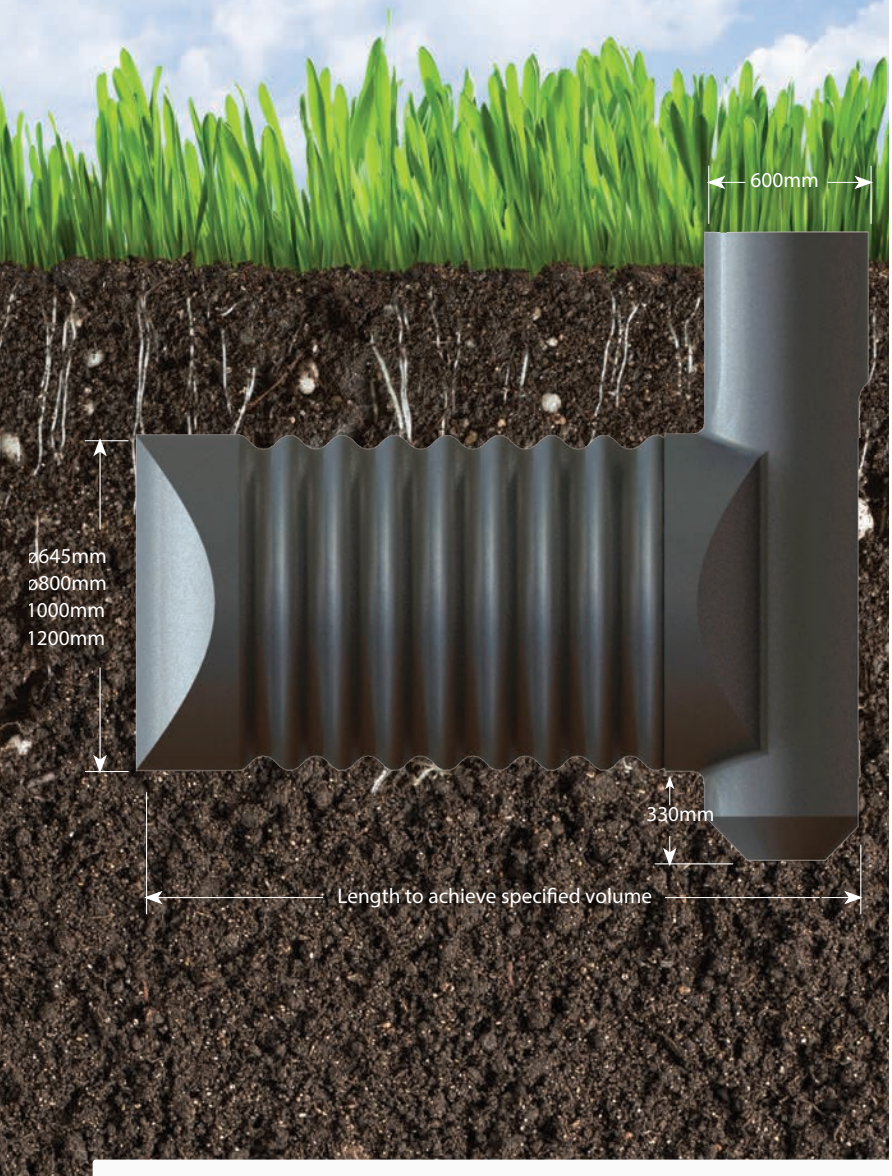
- Underground Water Retention/ Detention Systems
- Rain Harvesting Systems
- Chemical Storage Tanks
- Open Top Process Tanks
- Surface Water Sumps and Bubble Up Chambers
- Boat and RV Tanks
- HVAC Ducting suitable for chemical applications and council swimming pool environments
- Piping Systems for chemical,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

For more information call (09) 263 7741

StormLite®

DETENTION & RETENTION SOLUTIONS

Made to Order Economy.



Our 1200 diameter tanks are made from a potable grade polyethylene, which means they can be used for drinking water.

EASY INSTALLATION

All APD StormLite tanks come with a full fittings kit-set consisting of three wallace seals, end cap and leaf trap mesh. The engineered riser shape with flat back panel ensures simple installation of the wallace seals and our lightweight robust design means that APD tanks are easily and safely lifted into place with a digger on site.

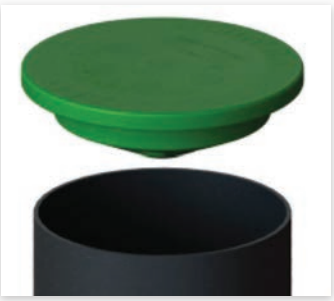
CHOOSE FROM FOUR DIAMETER OPTIONS

APD provides tanks in 1200mm, 1000mm, 800mm and 645mm to suit your site depth requirements.

DON'T PAY FOR EXTRA VOLUME YOU DON'T NEED

All APD StormLite tanks are assembled to the exact volume required and delivered within 2-5 days to site by hiab truck.

TANK ACCESSORIES



Garden Lid



Adjustment ring for driveway or concrete install



Standard 100mm fittings kit (150mm available on request)

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.**



TANKS THAT LAST

StormLite tanks are made from tough polyethylene corrugated pipe which won't corrode and can be recycled.

APD also provides StormLite tanks with a 10 year guarantee* and 50 year design life.

*10 year guarantee subject to APD Terms and Conditions of Trade.

OUT OF SIGHT

Save precious outdoor space on your section and eliminate the intrusive visual impact of an above ground tank. StormLite tanks are buried out of sight and can be installed under driveways, gardens or lawns.

HAMMERHEAD DESIGN

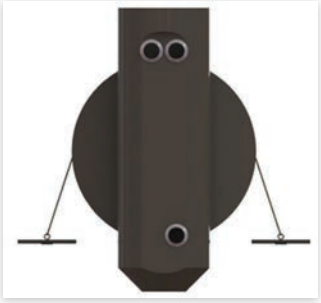
APD's unique hammerhead design with built in silt trap eliminates the cost associated with the installation of a separate silt trap and ensures 100% of the tank capacity can be utilised, avoiding the need for a larger tank. Connections can also be made into the opposite end of the tank if needed.

We can also provide pre-welded spigots to join multiple tanks together and spigots for larger pipe connections.

TANK ACCESSORIES



Optional pre-welded connecting and joining spigots



Optional Anti-Buoyancy Ground Anchors

For more information call (09) 263 7741

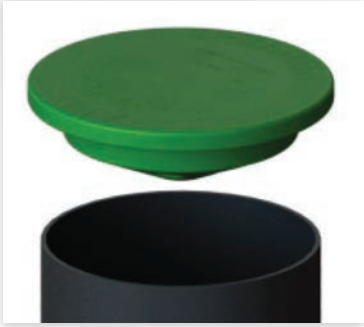
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StormLite®
DETENTION & RETENTION SOLUTIONS

Made to Order Economy.

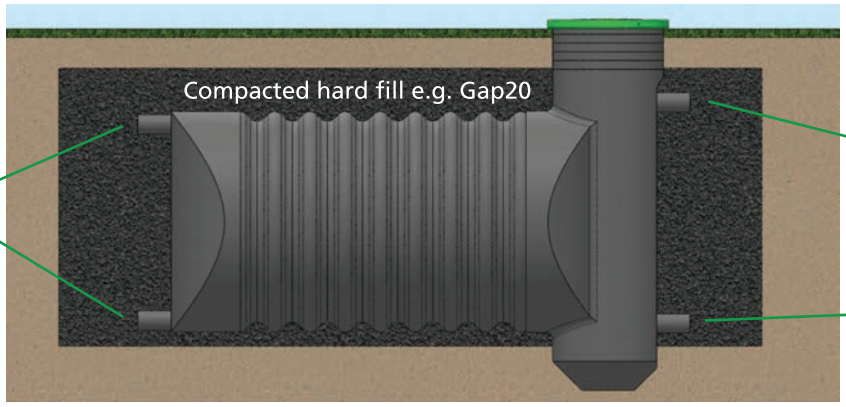
RESIDENTIAL LAWN INSTALLATION

Standard Cover:
150mm Compacted Hard Fill + 200mm Soil = 350mm Total



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



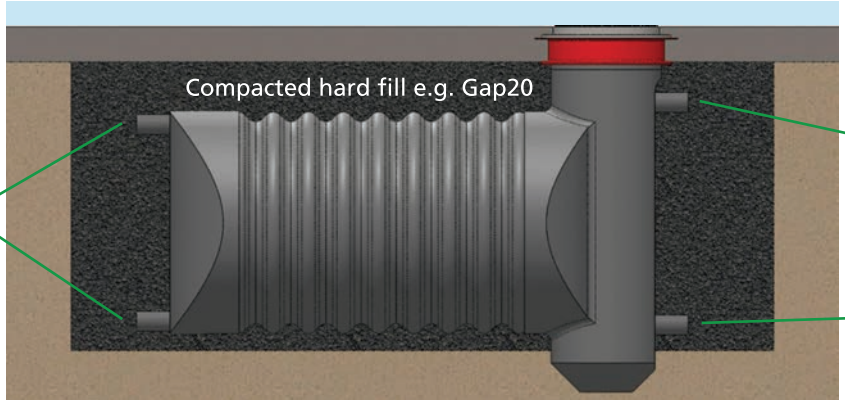
DRIVEWAY INSTALLATION

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



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



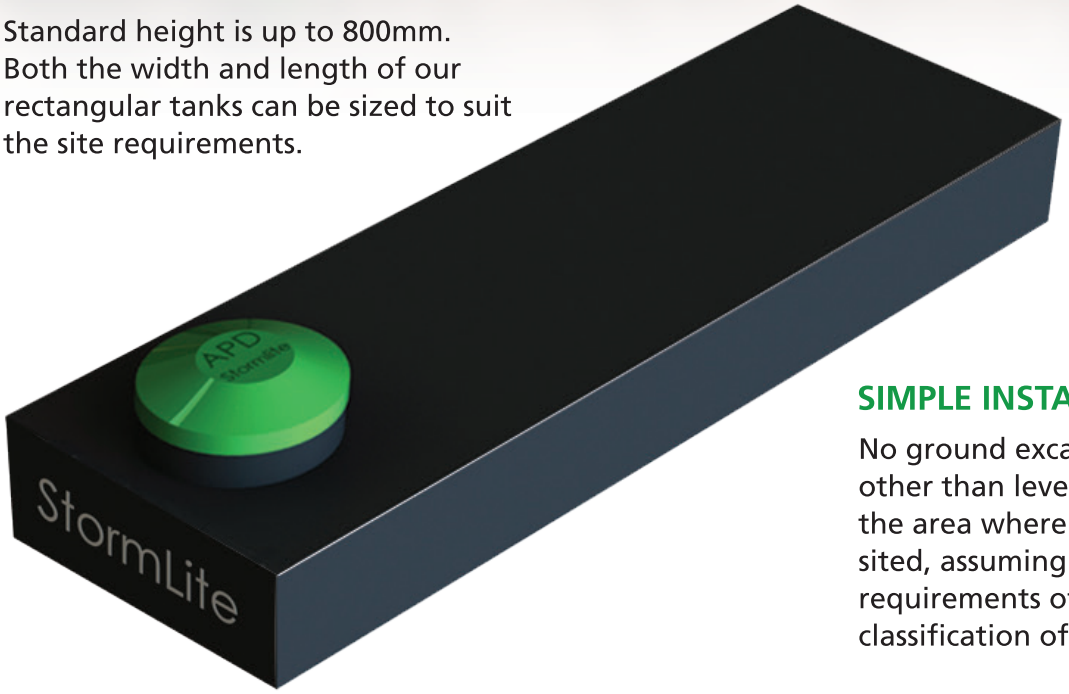
StormLite® Rectangular

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.

DIMENSIONS

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



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.

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.

OPTIONS

1. Standard man way position



2. Optional man way position



3. Silt trap and custom lid



For more information call (09) 263 7741

www.apd.co.nz

StormLite^{3}®

UNDERGROUND RECTANGULAR SOLUTIONS

Modular Strength that Fits.

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

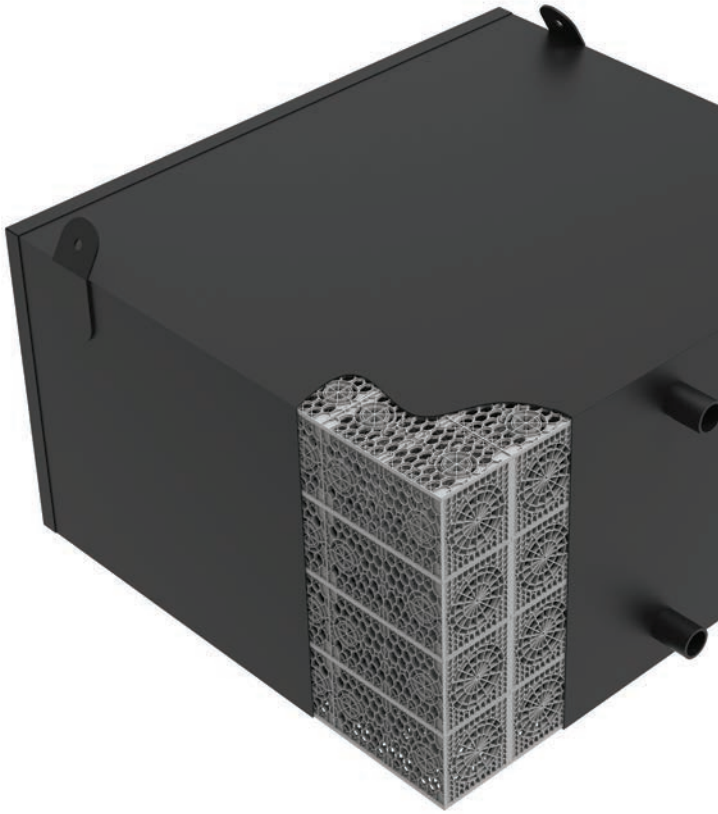
- Limited vertical depth to stormwater discharge point.
- Requirement for deep burial (up to 2m cover).
- Limited space that needs to store a large volume of water.

Our newest Tank Solution StormLite^{3} does it all with its unique APD design.

TRAFFICABLE

Designed to support loads up to 28 tonnes/sqm.

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.

CONNECTING SPIGOTS & INSPECTION PORTS

Standard with all StormLite^{3} 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.

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 StormLite³ 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 StormLite³ 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 the excavation site to a minimum; making for a safer and efficient work environment.



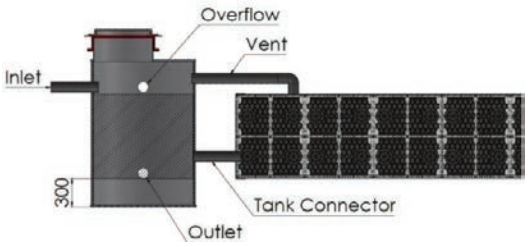
StormLite³ was developed because we were approached repeatedly by Engineers and Drainage Contractors for low vertical profile tanks, to be buried at depths greater than 1 metre and tanks to maximise volume storage in limited spaces.

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 dependent on the height and width. Please contact APD for advice.

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



MANHOLE CHAMBER AND SILT TRAP FOR DRAINAGE

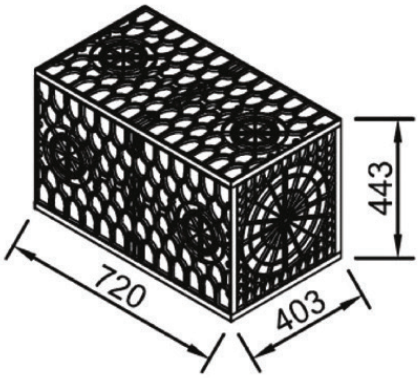
The StormLite³ tank must be connected to a manhole chamber as per the diagram, to limit silt intake into the tank and as a connection point for all inlets, overflow and orifice/outlet.

MODULAR TANKS

Modular tanks that fit any environment and give you the flexibility you need.

The internal structure of StormLite³ 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.



For more information call (09) 263 7741

www.apd.co.nz

RainWorx®
RAIN HARVESTING SOLUTIONS

The Easy, Complete System.

THE RAINWORX® RANGE GIVES YOU:

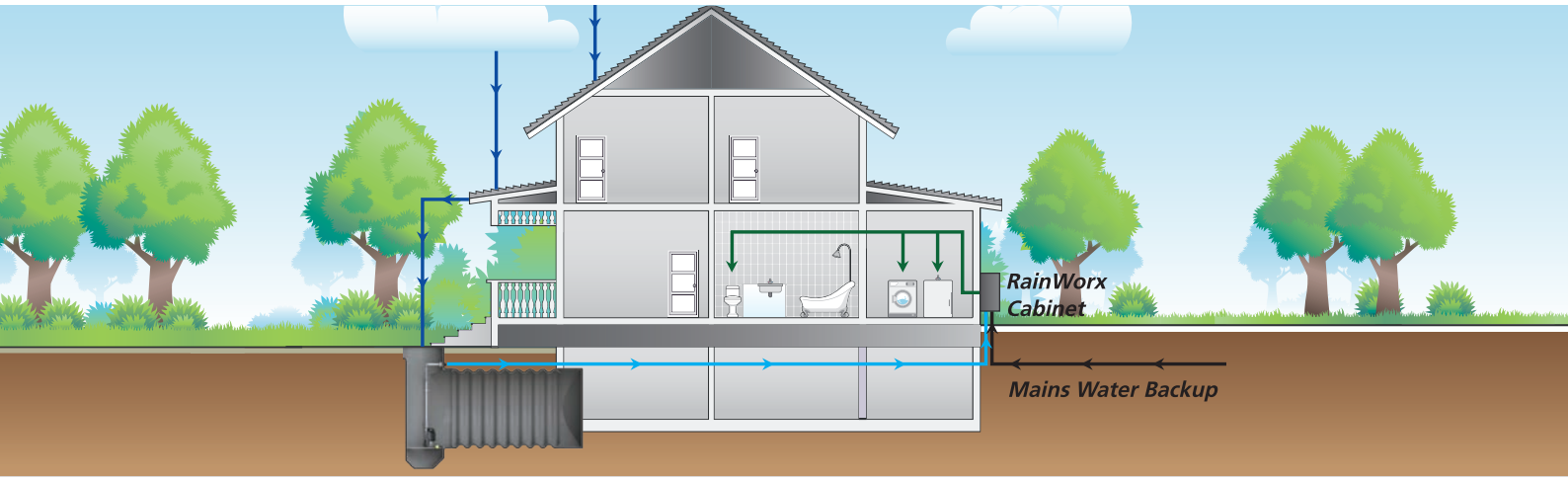
Complete package: Along with the StormLite tank we supply the pumps, controllers, pipe work and covers ready to connect to your plumbing and to integrate with the public water supply.

Quality parts: We are NZ's leading plastic tank fabricators, providing the highest quality products. All our StormLite tanks come with a design life of 50 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 tailored for you. 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 tradesmen 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.

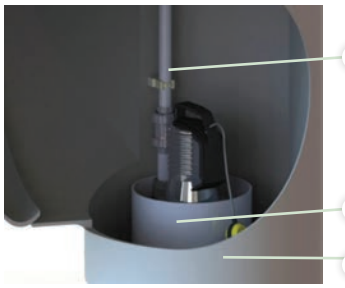
Fast installation saves costly additional man hours on site, keeping the time spent in the excavation site to a minimum; making for a safer and efficient work environment.

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

RAINWORX SYSTEM PACKAGES

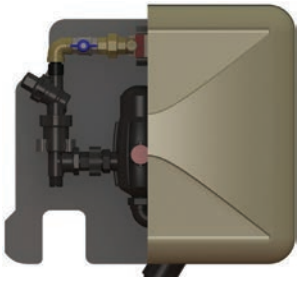
- Packages to suit underground or above ground tanks.
- User friendly status monitors.
- Testable back flow protector (double check valve).
- Inline filter, all fittings and bracketing.
- Isolation valves.
- Custom packages available on request.

RAINWORX PUMP KITS FOR UNDERGROUND TANKS



Submersible Pump Option + Tank Internal Pipework & Pump Platform

+



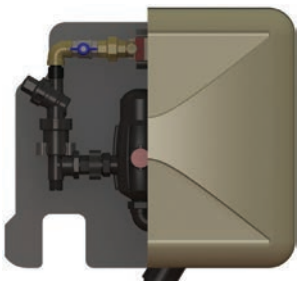
Pre-Assembled RainWorx Cabinet - Wall Mountable

RAINWORX PUMP KITS FOR ABOVE GROUND TANKS



Surface Mounted Pump With Cover

+



Pre-Assembled RainWorx Cabinet - Wall Mountable

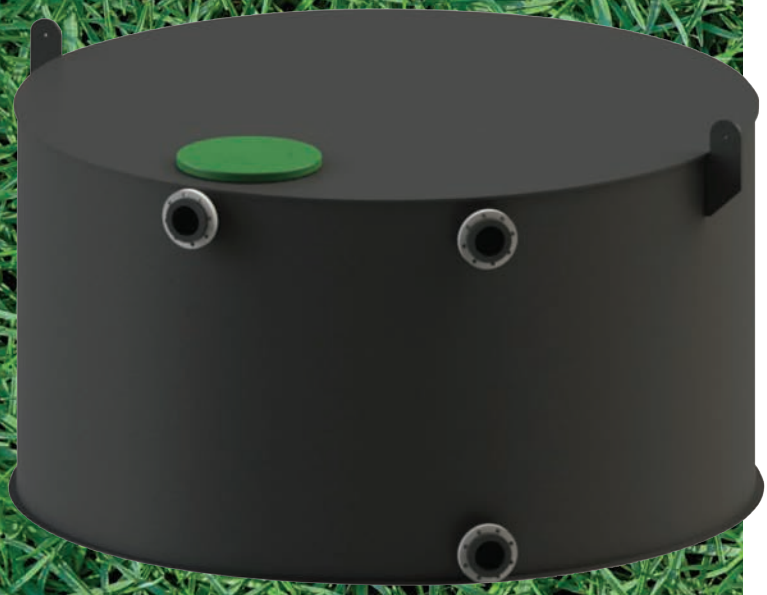
For more information call (09) 263 7741

www.apd.co.nz

Custom Built Above Ground Tanks

CYLINDRICAL TANKS - CUSTOM BUILT

Made to order tanks for special requirements.



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.

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.

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 to find out more.

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.

FIXTURES AND FITTINGS

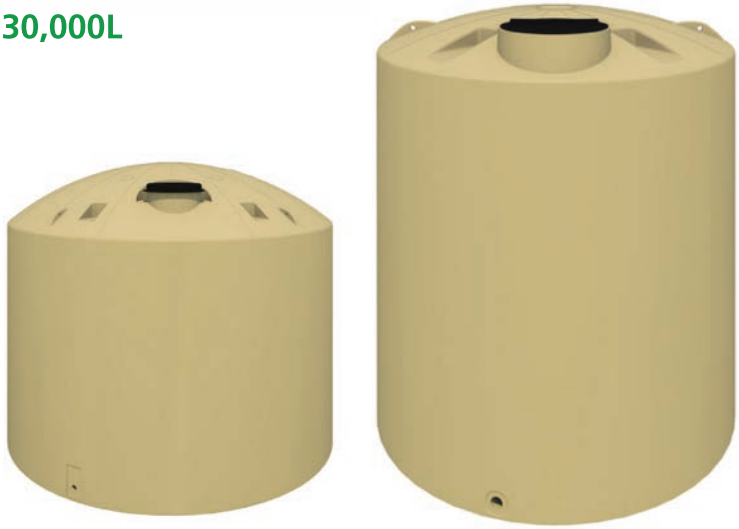
All of APD's tanks are provided with the fittings you require for your site. This can be multiple inlets and outlets and virtually any size. Our fittings are welded to the tank and reinforced as required so there is no chance of the fittings leaking. APD's tanks are all hydrostatically tested before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

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.

SIZES FROM 600L TO 30,000L



1000L SLIMLINE TANK MODULES

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





STANDARD COLOUR OPTIONS

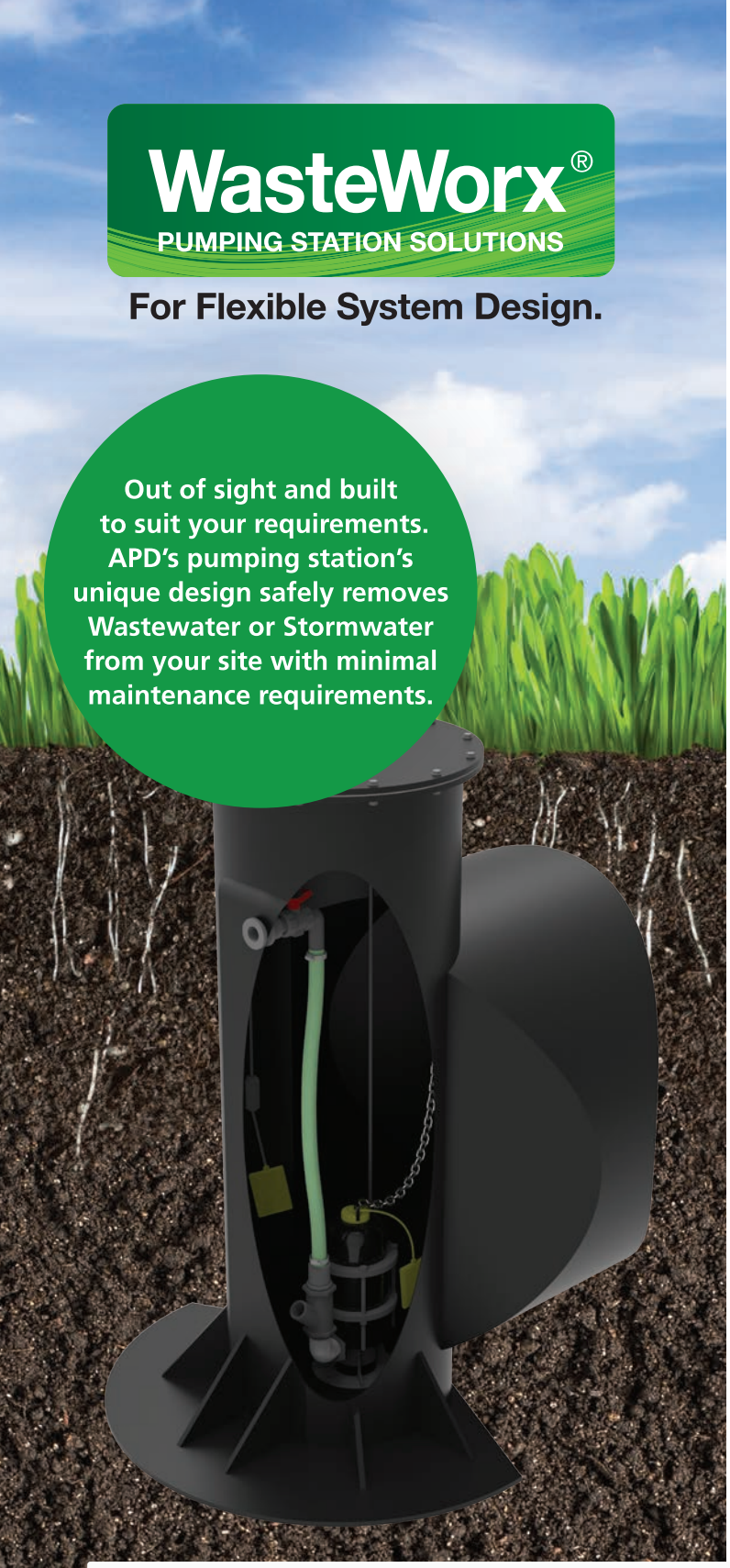
WHITE | BLACK | MIST GREEN | DARK GREEN | OLIVE GREEN | MOUNTAIN BLUE | SLATE GREY | LIGHT GREY | BIRCH GREY | BEIGE | CLAY BROWN

WasteWorx®

PUMPING STATION SOLUTIONS

For Flexible System Design.

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 ARMACOP 15 load requirements for polyethylene underground storage tanks. The tank has a large capacity which reduces pump cycling and wear, providing a much greater buffer in the case of power failures or other issues. APD's design allows the maximum output of waste from the tank.

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 and motor controls. These components combined create one of the easiest to service and 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 is a financially and environmentally friendly solution, eliminating the costly need for setting in concrete.

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 and you can utilise more of your garden area. At the same time the tanks are protected from damage from the elements.

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.



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.

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



STANDARD WASTEWORX CONTROLLER IP67

Suitable for individual households

- Automatic Start/Stop pump.
- Audible and visual 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 tanks uses.
- Control pump output.
  Allowing for times of higher and lower usage.

StormPit®
SURFACE WATER SUMPS

Built for Compliance.

StormPit Type One

THE APD STORMPIT RANGE HAS IT ALL PLUS MORE!

Don't be fooled by non-compliant sumps and ensure you are complying to 'NZ Building Code E1 Surface Water' by installing the APD StormPit Type One sump today.

EASIER! FASTER! IMPROVED!



NZBC E1 TYPE ONE COMPLIANT SUMPS ARE REQUIRED TO HAVE

- 300mm opening.
- Maximum 1000mm height.
- 375mm diameter.
- Removable access cap for cleaning.
- A submerged or trapped outlet.
- 300mm minimum at base for silt settlement.
- Minimum 90mm outlet pipe.

APD's StormPit range offers more than just compliance to NZBC E1, we have designed additional features to benefit the installer onsite and ensure the long-term, trouble-free use.

ADDITIONAL FEATURES

- 5 tonne rated ductile iron grate fits into the main body for shallow depth installations.
- Adjustable in height from 171mm – 445mm from top of outlet pipe to finished ground level.
- 274mm of height adjustment.
- 3 x Moulded inlet connections sized for 100mm PVC.
- Full 100mm sized outlet with oversized trap for greater flow.
- Anti-flotation ring.
- No threads that can bind up with gravels and fines.
- Easy to remove access cap.

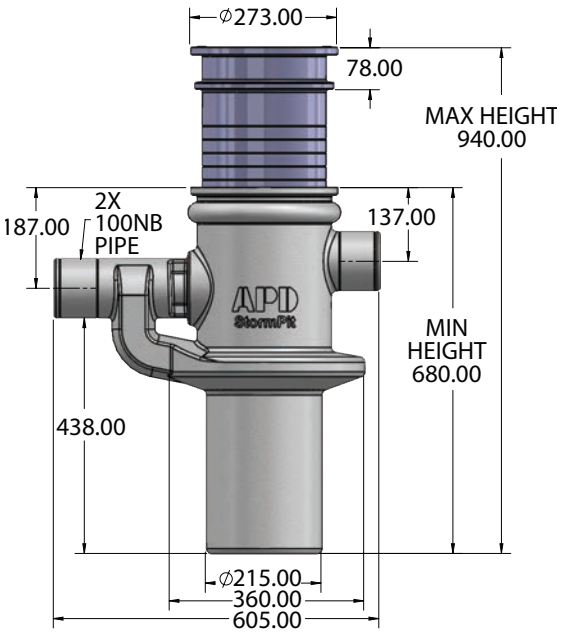
StormPit 250

If larger sumps need to meet NZBC E1 then why not make sure your smaller sumps meet the same requirements.



ADDITIONAL FEATURES

- 1 tonne rated ductile iron grate fits into the main body for shallow depth installations.
- Adjustable in height from 132mm – 392mm from top of outlet pipe to finished ground level.
- 260mm of height adjustment.
- 1 x Moulded inlet connection sized for 100mm PVC.
- Full 100mm sized outlet with oversized trap for greater flow.
- Anti-flotation ring.
- No threads that can bind up with gravels and fines.
- Easy to remove access cap.



LIKE ITS BIG BROTHER, OUR 250MM VERSION IS EASIER! FASTER! IMPROVED!

For more information call (09) 263 7741

www.apd.co.nz

StormPit Type Two

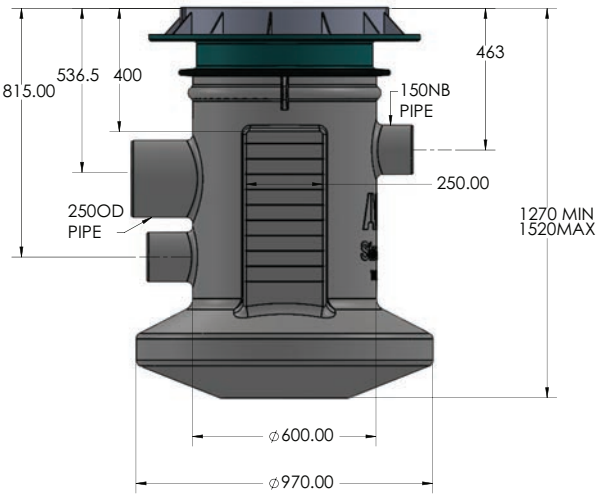
Why use heavy, difficult concrete sumps when you can use a New Zealand building code compliant APD Type Two sump and make your job easier?

LIGHTER!
EASIER!
FASTER!



FEATURES

- Lightweight, sump and riser are only 45kg - an easy two person lift.
- Moulded in lifting eyes if required.
- Adjustable in height from 1270mm – 1520mm from the base of the unit to FGL.
- Will fit a range of class D 600mm opening round grates.
- Ability to easily install 150mm UPVC syphon with access cap.
- Easy cutting with hole saw and use of 150mm rubber seals.
- 1 x 250mm OD spigot, 2 x 160mm OD (150mm UPVC) spigots and 2 flat panels for multiple inlet or outlet locations.
- 250mm of height adjustment.
- Anti-flotation ring, no additional concrete required.
- Easy height identification marks for cutting and drilling.
- Made in NZ of durable recyclable HDPE.
- Manufactured from water tank grade PE material suitable for below ground installations.



StormPit Bubble Up

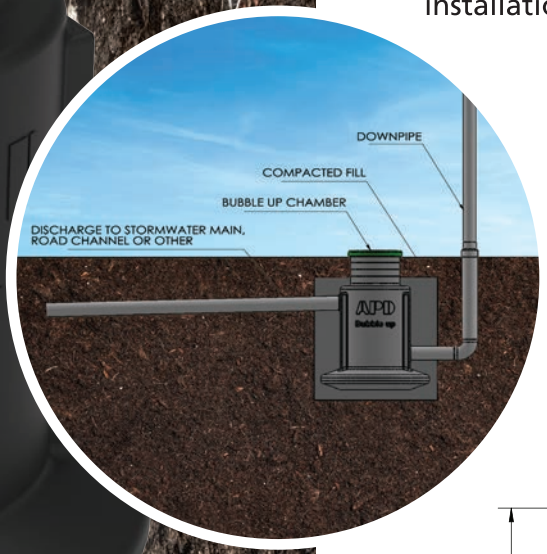
THE APD StormPit BUBBLE UP MAKES YOUR JOB EASIER!

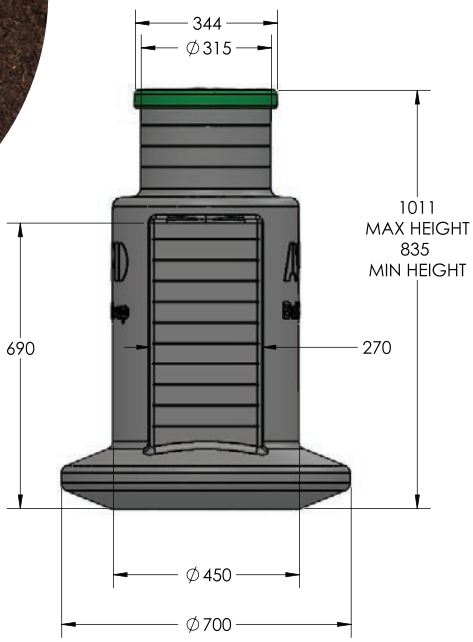
The APD StormPit Bubble Up chamber is designed to meet all the NZBC requirements, with multiple features to benefit the installer onsite and ensure long-term, trouble-free use.



ADDITIONAL FEATURES

- Adjustable in overall height from 835mm – 1010mm.
- Moulded garden lid with fixings.
- 175mm of height adjustment.
- 2 x flat panels for easy installation of pipe and seals to the required height.
- 2 x 100mm wallace seals provided.
- Anti-flotation ring, no additional concrete required.
- Easy height identification marks for cutting and drilling.
- Made in NZ of durable recyclable HDPE.
- Manufactured from water tank grade PE material suitable for below ground installations.





For more information call (09) 263 7741

www.apd.co.nz

For more information contact
your APD account manager
or call (09) 263 7741

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