



**Custom Safety that Lasts.** 

# REVOLUTIONISING WATER MANAGEMENT SOLUTIONS FOR THE NEW ZEALAND ENVIRONMENT













**Custom Safety that Lasts.** 

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## Why APD?

APD Ltd is the market leader in innovative plastic design, specialising in polymer fabrication, welding and rotational moulding of products for the New Zealand and Australian markets.

APD is only one of two companies in New Zealand that are approved to fabricate polymer Chemical Storage Tanks to the Health & Safety at Work Hazardous Substance regulation 2017. APD is a New Zealand owned company that has been providing solutions in plastics for over 35 years. APD has its own in-house design team so this enables us to take your requirements from concept through to a finished product, delivered to your site no matter where you are. Make finding your tank requirements easy, by making use of APD's helpful technical support team. By asking about your specific needs, we'll find a solution that's perfect for you.

#### **QUALITY**

APD prides itself on using the latest technology in welding equipment, allowing us to weld our products in accordance with the DVS series of standards for plastic fabrication and our above ground tanks are all designed in accordance with the standards EN1778 and BS EN12573.

One of our sheet butt welders is the largest in New Zealand and we are able to weld sheets up to 50mm thick and 4m long, allowing us to build tanks up to 100,000L with ease.

All of our fabricators either hold certificates in hot air welding and extrusion welding, or are currently completing their certificates. Yearly welding testing is conducted to confirm their competence.

We understand that off-the-shelf products do not suit all business needs. Our extensive product range is complemented by our engineering and design expertise, meaning we offer commercial and domestic solutions for any type or size of storage problem.

#### **SOME OF OUR PRODUCT RANGE INCLUDES:**

HazSure® Chemical Storage Tanks

HazSure® IBC Bunds

StormLite® & StormLite³® Underground Water

Retention/Detention Systems

Rainworx® Rain Harvesting Systems

HazSure® Open Top Process Tanks

WasteWorx® Pumping Stations

**Boat and RV Tanks** 

HVAC Ducting suitable for chemical applications and council swimming pool environments

Piping Systems for chemical, water and waste water plants

Please refer to our website www.apd.co.nz where you can view our latest products.

## **Chemical Storage Solutions**

WHEN YOU FIRST SEE AN APD HAZSURE® TANK, YOU CAN TELL STRAIGHT AWAY JUST HOW DURABLE THEY ARE.

Pass the chemical storage test: For custom safety that lasts, call APD on (09) 263 7741.

The New Zealand Health & Safety at Work Hazardous Substances regulations 2017 for storing chemicals are very strict, and HazSure® tanks more than cover these requirements in their IBC bunds, storage tanks, and process tanks. Because they are fully customised, you'll get exactly what you need, plus entire systems including ladders, cages, heaters, and insulation.

#### **SPECIFICATIONS**

HazSure® tanks are compliant with New Zealand Health & Safety at Work Hazardous Substances regulations 2017 and Australian requirements, and are designed and built in accordance with the Thermoplastic Stationary Tanks Safe Work Instrument (SWI) 2017.

All HazSure® tanks have a 25 year design life, which is 15 years longer than similar rotationally moulded tanks. They are also suitable for long term storage of most Class 5, 6, 8 and 9 Hazardous Substances – most acids, caustics, cleaners etc.

Hazsure® tanks are HSNO test certified and a complete documentation set is provided with each tank ready to provide to your Test Certifier.

APD tanks are very competitively priced when compared with stainless steel, GRP and even mild steel tanks with tank working volumes (capacity) up to 100,000 Litres\*. HazSure® tanks, including all their fittings, fasteners and seismic restraints, are made from non-corroding plastics, ensuring a long-term maintenance free life.

All Hazardous Substance Storage Tanks need to be located in a bunded area. APD designs and builds HSNO compliant bunds to suit all of our plain tanks, including rain covers to prevent water from filling up the bund. This is especially important for chemicals that react when exposed to water. Our bunds have the following advantages;

- All that is required is a flat concrete surface to fix the tank and bund onto. The tank and bund can then be installed in a matter of hours, no waiting for expensive site works and coatings.
- HazSure® bunds all have a design life of 25 years and are suitable for most class 5, 6, 8 and 9 liquids
- HazSure® bunds can be easily relocated to a new site at a later date if required
- HazSure® bunds are very cost effective in comparison to the major site works required in constructing conventional concrete block bunding and the various coatings required to provide protection
- All bunds are fitted with a chemically resistant valve with locking handle

## HazSure® Plain Tanks

#### **500L TO 100,000L\* CAPACITY**

Safely store hazardous substances on site in plain tanks up to 60,000L. Larger volumes are possible up to 100,000L depending on storage requirements.

\*Hazardous materials up to 60,000L, up to 100,000L for non-hazardous materials only.

#### **25 YEAR DESIGN LIFE**

HazSure® chemical tanks are designed for a 25 year life, are EPA approved and HSNO test-certifiable for almost all class 5, 6, 8 and 9 chemicals.

#### INTELLIGENT, SOPHISTICATED DESIGN

Our designs allow quick, straight forward installation of the tank, reducing cost and the need for multiple contractors. What's more, the tank may be easily moved to cater for future needs!

#### **SUPPLIED COMPLETE**

All HazSure® tanks are supplied complete with inlet and outlet fittings, level indicator, vent, overflow and seismic restraints.

HazSure® chemical tanks can also be supplied with a range of specialised fittings such as mixers, baffles, hand rails, caged ladders, tank heaters, splash shields and solids loading.

Look at page 13 for safety and mixing accessories.

## WHEN SPACE ISN'T THE ISSUE AND YOU NEED FLEXIBILITY: THE PLAIN TANK AND APD BUND SOLUTION

When you choose a plain tank (pictured) we can create a separate bund to be installed with it. You achieve the benefits of a self-bunded tank without sacrificing outlet and drain locations, or high-volume size choices. All of this with the convenience of getting everything from one source.

We can also include a rain cover with APD bunds.

#### **INDIVIDUAL DESIGN**

HazSure® chemical tanks are individually designed and built to suit your application and site and are suitable for both storage and process applications including mixing, blending, dilution and elevated temperature operation.







## HazSure® Self Bunded Tanks

#### **LOOKING FOR THE FULL PACKAGE?**

HazSure® self-bunded chemical tanks provide approx. 50% space saving compared to traditional tanks and bunds.

HazSure® self-bunded chemical tanks provide a weather-proof bund and tank in one package to eliminate the need for daily checks and ensuring water and chemicals do not mix.

#### **500L TO 20,000L CAPACITY**

Safely store hazardous substances on site in HazSure® self-bunded tanks from 500L to 20,000L.

#### **25 YEAR DESIGN LIFE**

HazSure® chemical tanks are designed for a 25 year life, are EPA approved and HSNO test-certifiable for almost all class 5, 6, 8 and 9 chemicals.

#### **DOUBLE WALL DESIGN**

HazSure® self-bunded chemical tanks provide a weather-proof bund and tank in one package to eliminate the need for daily checks and ensuring water and chemicals do not mix.

#### **SUPPLIED COMPLETE**

All HazSure® tanks are supplied complete with inlet and outlet fittings, level indicator, vent, overflow and seismic restraints.

HazSure® chemical tanks can also be supplied with a range of specialised fittings such as mixers, baffles, hand rails, caged ladders, tank heaters, splash shields and solids loading.

Look at page 13 for safety and mixing accessories.



#### **SPACE SAVING**

HazSure® self-bunded chemical tanks provide approximately 50% space saving compared to traditional tanks and bunds.

#### **OUICK AND EASY INSTALLATION**

Our designs allow quick, straightforward installation of the tank which reduces cost and the need for multiple contractors.

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

#### **INDIVIDUAL DESIGN**

HazSure® chemical tanks are individually designed and built to suit your application and site and are suitable for both storage and process applications including mixing, blending, dilution and elevated temperature operation.



## **HazSure® Custom Tank or Process Solutions**



CUSTOM
DESIGN TO SUIT
YOUR NEEDS

We regularly have clients who need to have a durable product that will last and provide them with a solution that meets their every need.

Sick of having to continually replace equipment that isn't exactly designed or built to their particular requirements, our clients turn to APD's specific engineering and design team to provide solutions.





## HazSure® Process Tanks

OUR PP, PVC AND PE OPEN TOPPED RECTANGULAR TANKS ARE PREFERRED BY MANY IN THE METAL FINISHING INDUSTRY.

The majority of our Process Tanks consist of a solid Polypropylene or Polyethylene shell reinforced with steel. This construction is suitable for almost all metal finishing Process Tanks. Designed and constructed to the DVS 2205 and BS EN 12573 Engineering Standards, these tanks offer many years of trouble-free operation. Tanks can be built to any height, width, or depth to suit your needs.

#### **LONG AND VERSATILE LIFE**

Our tank liners are the best value rigid drop-in PP, PE or PVC. The Liners are butt and extrusion welded to form a rigid liner that fits snugly into the steel tank, protecting it from corrosion. Liners are often used to extend the life of older tanks, which would otherwise need to be replaced.

#### **SAFE AND CERTIFIED**

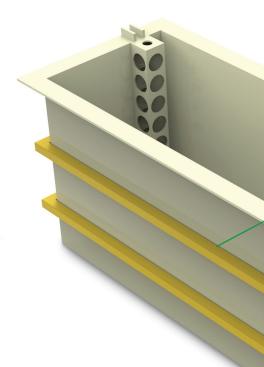
The simplest way to keep your workforce safe is to buy quality products that are going to last and not split or crack. The materials used for our tanks are resistant to most acids and alkali's, are tough and strong, and can be used for temperatures up to 70 degrees. HSNO requires all tanks over 5,000L to have a location test certificate. All of our tanks come with a design document pack to help get you ready.

#### **ADAPTABLE DESIGN**

Because we build every tank to order, you get the most from your process tank by only ordering what you need. We build any size of tank and construct it out of the best materials to suit the work you are planning to use it for. We offer a variety of options including covering the steel reinforcing to prevent corrosion, or adding insulation to prevent heat loss. The best part? We do all of this without the expensive price tag of a customised design.

#### **PROVIDING ESSENTIAL SERVICES**

If you are working with Electroplating, Galvanising, Powder Coating or anything similar in the metal working industry, you are going to need a tank to carry out these processes. Our tanks offer a flexible, full-service solution to suit your needs.





### **Custom Safety that Lasts.**

#### **EFFICIENT AND EFFECTIVE PRODUCTION**

Have everything you need at hand, with our onsite tank solution. As well as the standard process tank setup, we are able to include:

#### **HEATER AND CAGE**

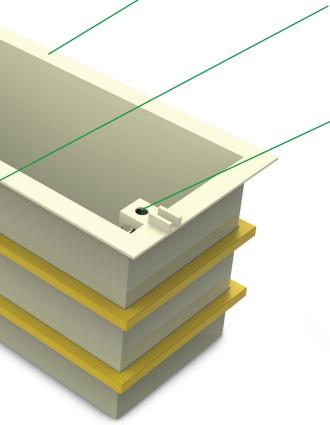
An element to heat liquids and a cage that will protect the tank and liquids from damage, caused by direct heat contact.

#### **REINFORCED TANK WALLS/BRACKETS**

Processing large volumes of products? We are able to reinforce the tanks and include brackets to support the use of Jigs.

#### **OVERFLOW VENTS**

Control fluid levels and direct output flow to effectively contain excess fluids and therefore reduce the risk of a hazardous chemical spill on site.



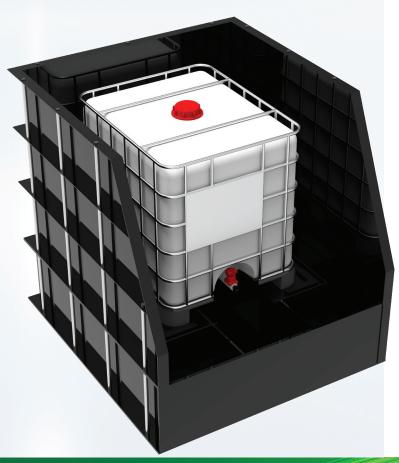


## IBC Bunds WHEN SAFETY & COMPLIANCE MATTER

Ensure spill control and containment of hazardous chemical leaks with our IBC (Intermediate Bulk Container) bunds, designed to meet all New Zealand HSNO and seismic requirements.

#### HSNO REQUIREMENTS FOR YOUR SITE

All of our bunds meet HSNO requirements for 110% bund capacity and splash angle, and are also designed for chemicals with an SG of up to 2.0.



#### **STRONG AND LONG LASTING**

Fabricated from a Polyethylene design, all of our IBC bunds have a maintenance and worry-free 25 year design life and come with a 10 year guarantee.

#### **GET THE RIGHT SOLUTION FOR YOU**

Choose from our single or double IBC bunds. All of our bunds can be supplied with rain covers. Our bunds are designed to be portable, so the IBCs can be moved with a fork hoist, allowing for quick and easy relocation as required.

## SOPHISTICATED DESIGN THAT KEEPS YOU PRODUCTIVE

#### **DAY-TO-DAY**

Easy access to IBCs for less down time and a straight forward process to replace them, saving you time and money. We also have options to include taps and valves to increase ease of use.

#### **LONG-TERM**

All of our bunds are rust, leak, crack, and shock resistant. By using Polyethylene and applying our design expertise, your IBC bunds will stay stronger and last longer.





#### **DID YOU KNOW...**

Our standard IBC bunds are seismically rated to IL2 for NZ conditions.

#### SINGLE IBC BUND DOUBLE IBC BUND

2,200L

**HEIGHT** 1,805mm 1,805mm

1,200L

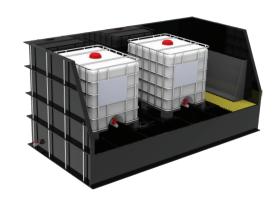
**WIDTH** 1,716mm 3,160mm

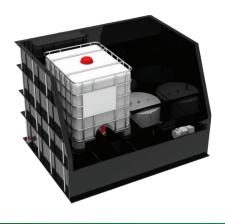
**DEPTH** 1,955mm 1,955mm

## LOOKING FOR SOMETHING TO MEET YOUR SPECIFIC REQUIREMENTS?

#### **CUSTOM DESIGN**

We build to your exact specifications, if it is pipework, instrument panels, pump mounts or anything else you need. Let us design something to suit your needs.





#### **BUND AND DAY TANK OPTIONS**

**BUND CAPACITY** 

Our single and double bund with day tank options allow for complete configuration to meet your needs. Both sizes can come complete with 50L and 100L day tanks to suit your needs. You may also need level monitoring and alarms, pump mounts and valving all set up to suit your process. This allows the IBC to be changed without affecting your processes or the risk of damaging your equipment.

## **Pipelines & Ducting**

YOU HAVE CHOSEN YOUR TANK, NOW IT'S TIME TO THINK ABOUT SAFELY TRANSFERRING CHEMICALS AND HAZARDOUS SUBSTANCES TO AND FROM THE TANK.

#### **Pipelines**

Whether from truck to tank, or tank to point of use, or even disposing of waste chemicals, the pipework is an essential part of your process.

#### **CUT COSTS NOT OPTIONS**

With a range of polymer materials to choose from we will select the most suitable for compatibility, durability and cost, without the need for costly stainless steel.

#### **TWICE AS SAFE**

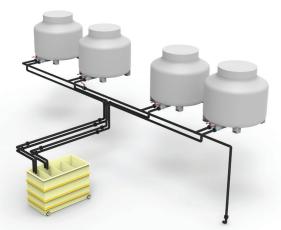
All of our PVC piping is chemically resistant and safe. If you require an additional layer of safety, we are able to also install a dual containment system; this twin wall protects your workspace against hazardous spills.

#### **MAXIMISE QUALITY**

Our installation team are fully trained and certified to deliver the highest quality service in a safe and effective manner. All work is pressure tested upon completion.

#### **DON'T WAIT**

PVC pipelines are significantly faster to install than stainless steel, so you will be up and running sooner.



#### **HVAC Ducting**

Looking for a safe and reliable way to transfer air?

#### **DURABLE**

Traditional ducting like steel may rust and corrode when you want to transfer corrosive air. By making our ducting from PP or PVC you could save on long-term replacement costs.

#### **SAFETY COMPLIANCE**

Longer lasting means a reduced risk of leaks and spills. All of our ducting is designed to SMACNA ducting standards.

#### **VERSATILE**

Get exactly what you need. Round, square, rectangular, on display or hidden, even choose from a range of colour options; we are able to make it all. By building in PP or PVC, we can fabricate solutions for the most complicated design requirements.

"All aspects of the job have been completed to a very high standard, with the result being we now have a very functional plant, that is operating efficiently and compliant to HSNO regulations."

Brian Vercoe, Manufacturing Services Manager – 30 Seconds Ltd

To read more about the 30 Seconds Ltd project visit: www.apd.co.nz/case-studies

## **Safety & Mixing Accessories**



#### **NOZZLES, VALVE ENDS & VALVES**

Want to connect your pipework directly to your tank?

It's your choice, as we offer stub flanges and backing rings or valves and valve ends and depending on your needs, we may install a variety of sizes, because we build to order and you choose where on the tank you want them installed.



#### **LADDERS, CAGES AND HANDRAILS**

For safe access to your tanks we supply handrails, ladders and cages designed specifically to suit our tanks. Fabricated in steel and powder coated in a chemical resistant polyurethane for maximum protection, all our handrails, ladders and cages are designed in accordance with AS1657.



#### **MIXER BRIDGES**

For applications where mixing is required, we can provide mixers and mixer bridges designed specifically to suit your mixing needs and work optimally with our tanks. You get the benefit of a complete solution, ready to go, that will work. All of our tanks may be fitted with mixing baffles to improve mixing, based on the impeller design and mixer location in the tank.



#### **SLOPING OR CONICAL BASES**

Need to empty your tank completely?

Our sloping or conical base designs direct the flow of fluids to an outlet point at the lowest point of the tank to provide efficient and complete draining. There are two options available, a conical base design, or a single sloping design. We will work with you to determine the most suitable option based on the tank size and your requirements.



#### **INSULATION**

Ideal for tanks storing Sodium Hydroxide, or any chemicals that need to maintain temperature to avoid freezing. By insulating your tank, you minimise heat loss and save on the costs of heating. Our insulation is built into the tank, meaning it looks the same as our plain tank and you benefit from that same durable exterior.

#### PRETTY MUCH ANYTHING ELSE YOU MAY THINK OF!

Whether you require ease of access, or controlling temperatures, level measurement or improving health and safety, we are able to provide side entry manways to insulation and tank heaters, custom flanges and more. Whatever your requirement, talk to us about including it in your project.

## HazSure® Technical Information

#### **DANGEROUS CHEMICALS? NO WORRIES...**

Regardless of the chemicals you are using, we will recommend the tank materials to suit your application.

Whether its PP, PE or PPE or a fibreglass composite, our team of experts will recommend the best solution for you, to ensure your workplace safety and compliance, so you experience the benefits – i.e. adaptable design choices and improved workplace efficiency.

APD are able to provide cylindrical storage tanks and rectangular open process tanks to meet your needs.

Worksafe - Minimum 25 Year design Life	HazSure® HDPE Tanks	HDPE Rotomoulded Tanks	Stainless Steel Tanks (316)				
Common chemicals							
Sodium Hydroxide up to 50% solution	$\checkmark$	×	$\checkmark$				
Sodium Hypochlorite up to 13% solution	$\checkmark$	×	×				
Sulfuric Acid up to 80% solution	$\checkmark$	×	×				
Hydrochloric Acid up to 37% solution	$\checkmark$	×	×				
Aluminium Sulphate up to 100% solution	$\checkmark$	×	$\checkmark$				
Ferric Chloride up to 100% solution	$\checkmark$	×	×				
Citirc Acid up to 100% solution	$\checkmark$	×	$\checkmark$				
Hydrofluorosilicic Acid up to 100% solution	✓	×	×				
✓	Excellent - n	no effect					
✓	Good - mind	Good - minor effect, slight corrosion or discolouration					
×	Do not use						

Source: Industrial Specialties Mfg

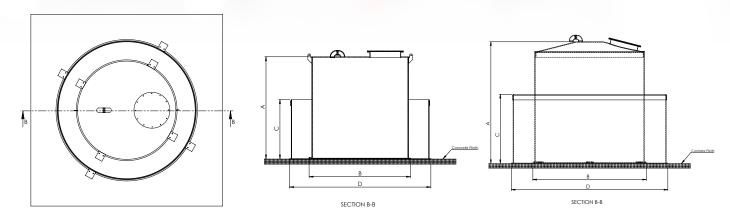
#### **FLAT ROOF PLAIN TANK & BUND DIMENSIONS**

Working Volume (L)	500	1,000	1,500	2,000	2,500	3,000	5,000
Tank Height Overall (mm) A	1,018	1,263	1,393	1,538	1,534	1,703	2,008
Tank Base Diameter (mm) B	959	1,192	1,352	1,462	1,627	1,690	1,988
Bund Height Overall (mm) C	576	821	851	901	891	1,008	1,198
Bund Base Diameter (mm) D	1,421	1,650	1,910	2,110	2,285	2,402	2,824

#### **CONICAL ROOF PLAIN TANK & BUND DIMENSIONS**

Working Volume (L)	5,000	10,000	20,000	30,000	40,000	50,000	60,000
Tank Height Overall (mm) A	2,077	2,651	3,268	3,750	4,209	4,347	5,000
Tank Base Diameter (mm) B	1,988	2,500	3,175	3,630	4,010	4,400	4,520
Bund Height Overall (mm) C	1,128	1,512	1,760	-	-	-	-
Bund Base Diameter (mm) D	2,804	3,470	4,485	1.	-	-	-

Height and diameter may be varied to meet your space requirements.



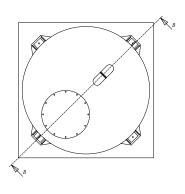
#### FLAT ROOF SELF-BUNDED TANK DIMENSIONS

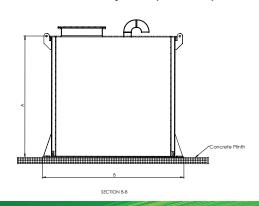
Working Volume (L)	500	1,000	1,500	2,000	3,000	5,000
Height Overall (mm) A	1,059	1,227	1,353	1,504	1,675	1,962
Base Diameter (mm) B	977	1,216	1,393	1,506	1,752	2,079

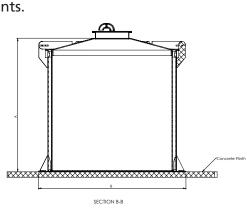
#### **CONICAL ROOF SELF-BUNDED TANK DIMENSIONS**

Working Volume (L)	5,000	7,500	10,000	12,500	15,000	20,000
Height Overall (mm) A	1,962	2,238	2,489	2,845	3,025	3,288
Base Diameter (mm) B	2,079	2,386	2,629	2,800	3,026	3,333

Height and diameter may be varied to meet your space requirements.







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

www.apd.co.nz