

# RHINO COMMERCIAL TANKS BORN TOUGH



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RHINO  
WATER TANKS



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## Company Profile

Rhino Water Tanks is a privately owned and operated business with over 20 years experience in the water storage industry. Rhino Water Tanks manufacture exceptional quality lined modular steel water tanks for domestic, rural and industrial purposes using the latest available membrane technology. These tanks are also well suited to fire prone areas as part of a fire protection plan.

Our corrugated commercial Rhino Water Tanks range in size from 26,000 Litres to 2.3 Million Litres and are available in Zinalume or the full range of Colorbond®.

Rhino Water Tanks also offers Permastore Glass-Fused-to-Steel Industrial tanks for solutions that corrugated lined tanks can not service. Permastore tanks offer solutions for mass storage in Desalination, Effluent, Municipal and many other areas just to name a few.

All tank components in the Corrugated Lined range, including the Rhino Infinity Liner, are fabricated in our own Rhino Tanks factory, which means we can control the quality of every aspect of the tank from manufacturing to installation. Rhino Infinity Liner, our reinforced Food Grade Metalocene coated Liners, are UV treated for applications without a roof and can be used for a range of liquids including high or low pH and recycled water.

Rhino Commercial Water Tanks have a 60 year service life and with a network of Rhino Water Tank Agents and tank installers nationally and internationally we are never far away. Enquiries and sales can be taken direct through our 1800 number, email or through one of our affiliated distributors.

## Quality Assurance

Rhino Water Tanks is a quality endorsed company. Our products are manufactured in our Western Australian factory under a quality management system certified to ISO 9001.

Our quality management system aims to benchmark ourselves against the best in the world and we proudly display the well recognised 'Five-Ticks' Standards Mark to give our customers the confidence that Rhino Water Tanks continually strive to provide cost effective, quality products and services that meet the customer's individual needs and expectations.



# Tank Sizes

## Corrugated Profile

Rhino Corrugated Commercial Tanks are available in a variety of standard sizes or can be custom designed to meet specific customer or project requirements.

The standard range of commercial tanks are available in 5 height specifications as shown below.

NOTE: Effective capacities vary depending on tank dimensions & quantity, size & position of fittings.

TANK MODEL	TANK DIAMETER	HEIGHT				
		2.2m	2.9m	3.6m	4.3m	5.0m
RCT 25	3.884m	26,062	34,359	42,653	50,947	59,240
RCT 40	4.855m	40,723	53,708	66,673	79,637	92,601
RCT 60	5.826m	58,640	77,309	95,969	114,630	133,291
RCT 80	6.797m	79,816	105,257	130,664	156,070	181,477
RCT 100	7.768m	104,250	137,438	170,612	203,787	236,962
RCT 130	8.793m	131,941	173,984	215,981	257,977	299,973
RCT 160	9.710m	162,890	214,746	266,582	318,417	370,252
RCT 200	10.681m	197,097	259,892	322,624	385,357	448,089
RCT 230	11.652m	234,562	309,235	383,878	458,521	533,164
RCT 275	12.623m	275,284	362,979	450,595	538,210	625,826
RCT 320	13.594m	319,264	420,849	522,433	624,017	725,601
RCT 360	14.565m	366,503	483,246	599,891	716,537	833,182
RCT 420	15.536m	416,998	549,680	682,361	815,042	947,724
RCT 470	16.507m	470,752	620,692	770,515	920,337	1,070,159
RCT 530	17.479m	527,764	695,688	863,613	1,031,538	1,199,463
RCT 590	18.450m	588,033	775,134	962,236	1,149,337	1,336,438
RCT 650	19.421m	651,560	858,875	1,066,189	1,273,504	1,480,818
RCT 720	20.392m	718,345	946,909	1,175,473	1,404,038	1,632,602
RCT 790	21.681m	788,388	1,039,238	1,290,089	1,540,939	1,791,790
RCT 860	22.334m	861,688	1,135,862	1,410,035	1,684,209	1,958,382
RCT 940	23.305m	938,246	1,236,779	1,535,312	1,833,845	2,132,378
RCT 1010	24.276m	1,018,063	1,341,992	1,665,920	1,989,849	2,313,778

## Permastore Industrial Tank Range

Rhino Tanks also offer the full range of Permastore Industrial Tanks suitable for large storage applications beyond the scope of Rhino's standard size range. For more information see pages 16-18.



## Manufacturing to Australian Standards

All components of Rhino Water Tanks comply with and surpass all applicable Australian and Industry Standards. The design of all Rhino Water Tanks is certified by the renowned Van Der Meer engineering consultants.



## Colour Range Available for Corrugated Wall Profile Only

Most tank manufacturers only offer limited colours in their standard range. Only Rhino Water Tanks offer the FULL RANGE of genuine Bluescope® Colorbond® colours in their standard range.

BLUESCOPE® COLORBOND® COLOURS							
MANOR RED	JASPER	COVE	CLASSIC CREAM	EVENING HAZE	DEEP OCEAN	IRONSTONE	
SURFMIST	PAPERBARK	DUNE	WALLABY	SHALE GREY	GULLY	WINDSPRAY	TERRAIN
WOODLAND GREY	BASALT	PALE EUCALYPT	MANGROVE	COTTAGE GREEN	MONUMENT	NIGHT SKY	

## Wall Profiles

Rhino Water Tanks offer their traditional Corrugated Profile or the Permastore Glass-Fused-To-Steel Profile.

### Corrugated Profile

The corrugated range of tanks are manufactured from genuine Bluescope® COLORBOND® or Zinalume steel. The wall structure is composed of corrugated Blue-Orb sheeting that is rolled and curved by our custom made rollforming equipment. The corrugated profile provides increased wall strength and durability.

### Permastore Glass-Fused-To-Steel Profile

See pages 16-18 for information.

## Structure

All Rhino Commercial Tanks can be specifically engineered for cyclonic regions in accordance with Australian Standards for wind loads AS/NZS1170:2007 (Structural Design Action).

## Roofing

The roof structures of all Rhino Commercial Tanks carry dead and live loads in accordance with AS/NZS 1170:2007 (Structural Design Actions).

Rhino Water Tanks sources and supplies high tensile corrugated Custom-Orb sheeting used in the roof of all corrugated tanks. The roof truss system uses Square Hollow Section top cord with structural angle and flat bar plate components to complement a tank designed for all climatic conditions. All trusses are Hot Dipped Galvanised.

Certified design is in accordance with AS 4100 (Steel Structures) and AS/NZS 4600 (Cold Formed Steel Structures).

## Welding

All welding and other manufacturing involved in the production of Rhino Tanks is in accordance with AS/NZS 1554:2008 (Structural Steel Welding).



## Corrosion Protection

All structural components of the Rhino Commercial Tank are hot dipped galvanized to meet AS/NZS 4680:2006 (Hot Dip Galvanized [Zinc] Coatings on Fabricated Ferrous Articles). Every Rhino Water Tank installed uses Sacrificial Magnesium Anodes that are engineered to AS 2239 alloy M3 analysis & performance standard.

The Zinc or Galvanized coating on any steel gives some cathodic protection; however, this protection is limited. The use of Sacrificial Anodes becomes the first defence against corrosion and the Galvanized or Zinc coating on the wall sheets become the second defence. Correct installation and our regular maintenance program are therefore imperative to maximise your tank longevity and design life.



## Nozzles

Generally, nozzles used on Rhino Commercial Tanks are manufactured from PE80 HDPE or hot dipped galvanized steel. HDPE fittings are manufactured from PE complying with AS/NZS 4130:2003 and fabricated in accordance with PMBWELD301A.

Nozzles used may be project specific depending on requirements. Larger outlet sizes and other fittings such as Cam Lock, Stortz, CFA and CFS fire couplings can also be provided if required.



## Platforms & Ladders

All Platforms and caged ladders on or around Rhino Commercial Tanks are manufactured in accordance with AS 1657-1992 (Fixed Platforms, Walkways, Stairways and Ladders).

## Ring Beam Preparation

All commercial water storage tanks require construction on a concrete ring beam footing. It is imperative for the client to ensure foundations and civil works for the site are adequate. Ring beam design is dependent on tank size and location. Appropriate design specification drawings are supplied by Rhino at the time of order.



## Installation

Rhino Water Tanks has a network of specially trained tank installers across Australia. Our installers focus on quality and excellent service to ensure the job is manufactured, supplied and installed to the customer's specific requirements.

All Rhino tanks are transported to site in flat pack form and then assembled on site. This allows us to position the fittings to the customer's individual requirements and gives us the ability to install tanks on sites with reduced accessibility. Larger tanks may be assembled with the use of cranes as demonstrated in these photos.

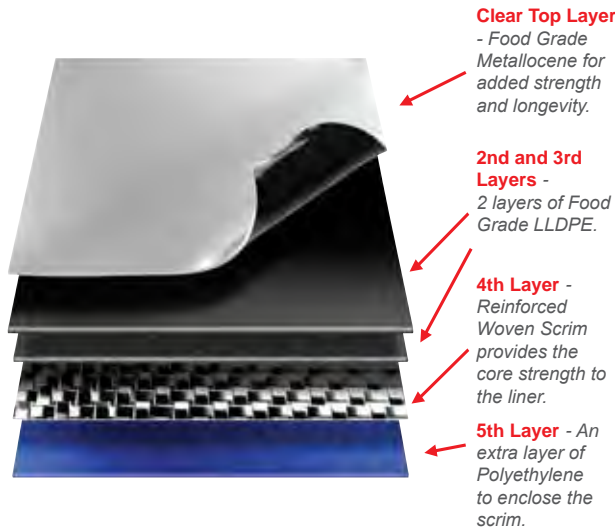




## Reinforced Food Grade Rhino Infinity Liner

All our tank liners are made in our own Rhino Tanks manufacturing factory and have been for over 20 years. Our qualified liner fabricators use the latest welding techniques and state of the art machinery to produce liners of the highest quality.

Rhino Infinity Liner is the latest technological advancement in liner fabrics on the world market and is exclusive to Rhino Water Tanks. Rhino Infinity Liner has a state of the art food grade, UV treated, multi layered film called Metallocene, laminated to the existing reinforced polyethylene liner giving extra layers of strength and durability. The development of this new commercial strength liner once again demonstrates Rhino's commitment to consistently improve our product and reinforces our status as one of the world's leading manufacturers of tank liners.



Rhino Infinity Liner has passed water potable testing at the Australian Water Quality Centre

AS/NZS 4020:4020 and ANSI/NSF – 61 and has been tested for:

- a) Taste of water extract
- b) Appearance of water extract
- c) Growth of aquatic organisms
- d) Cytotoxic activity water extract
- e) Mutagenic activity water extract

Our superior Rhino Infinity reinforced tank liners are fabricated by Rhino's highly qualified liner fabricators using the latest welding techniques and machinery



The sections of liner are joined using a heat welding process with a 50mm overlap.

The Metallocene tape welded seam provides an extra seal and prevents bacterial growth under the lap seam.

## New XR-3 Commercial Liner

For over 25 years, **Seamans Corporation XR** technology has set the industry standard for geomembranes and tank liners in strength, durability and performance. Seamans Corporation has developed **3522 XR-3 PW** liner (with Ethylene Interpolymer Alloy coating) exclusively for Rhino Water Tanks.



This unique **XR-3** liner has excellent chemical resistance and can be used to contain an extensive range of harsh liquids where Polyolefin liners may not be suitable.

For more information contact the commercial manager in your state on 1800 632 410.



## PROJECTS

### Mining and Power



#### Iron Ore Project **Karara WA**

Karara Iron Ore Project is a new world-class magnetite mine in the preliminary stages of construction. DORIC Constructions are in final construction stages of the 1350 room accommodation camp for the mine.

Rhino water Tanks supplied 5 Water Tanks in total for uses including Fire, Water Treatment and Potable Storage.



#### Rio Tinto **Mt Thorley NSW**

RTCA (Rio Tinto) mine site near Mt Thorley in NSW required 6 tanks in total which were completed as a bank of 4 and a separate bank of 2. All tanks are approximately 700kl and are for the storage of water for dust suppression and process water.



#### Xstrata **Mt Isa QLD**

This 1 Megalitre tank at Mt Isa for Xstrata has a dual purpose with 625kl reserved for Fire Water and the remainder used for process water for the CHPP.



#### Liddell Coal **Singleton NSW**

This 350,000 Litre tank at this large scale Singleton mine site is for fire water storage and has been built up on an elevated pad to allow for the quick fill system to operate efficiently.



## Mining and Power



### Verve Energy Power Station Desalination Plant **Collie WA**

These recently installed commercial tanks are part of a desalination plant at Muja Power Station in WA capable of processing up to 10ML a day. There are several tanks on site including an elevated 25kl (Rhino also built the stand) while the largest tank in this project is 2.3 Megalitres.



### Power and Water Corporation **Darwin NT**

This 60 kl corrugated commercial tank was installed as part of a reverse osmosis system at the Katherine Power Station. The entire system is capable of delivering 50kl per day and the Rhino tank is the key component in the completely automated disinfection system for the storage water.



### BHP Billiton **Onslow WA**

These 2 x 600kl Fire tanks and a 100kl Potable Water tank were supplied to service the process plant for this Macedon Project near Onslow WA. The project involves 4 offshore production wells and an onshore treatment plant that will supply gas to the Dampier to Bunbury Natural Gas Pipeline.



### Maroon Group / Decmil **Calliope QLD**

Stage 1 of the accommodation facility in the Calliope mining area near Gladstone required this 625kl tank for combined static fire water and potable water.



## Commercial Rainwater Harvesting



### Gold Coast Marine Centre **Gold Coast QLD**

These 2 x 3.6 metre high 180 kl Colorbond Commercial Tanks in Coomera are for harvesting rainwater and then re-use for process water and services.



### Moss Vale Saleyards **Moss Vale NSW**

This Government Funded project involved the installation of 4 x 130kl and 1 x 15kl Rhino tanks at the Moss Vale Saleyards in New South Wales. The tanks are used to store the harvested water from the 10,000 square metre roof and save over \$1.8Million Litres per year.



### Fox Studios - Tank for Cooling Tower Water **Sydney NSW**

Rainwater harvesting from commercial buildings is a growing trend and this example demonstrates a 5 metre high 90kl tank with small diameter due to restricted space. Due to the kit form of our tanks we can usually assemble the tanks in tight locations including underground car parks or basements.



### Etihad Stadium **Melbourne VIC**

City West Water funded this project at the former Telstra Dome (now Etihad Stadium) which involved the installation of 17 tanks of various sizes and in various sections of the stadium providing approximately 1 Megalitre of storage. The recycled water is being used to supplement mains water in the toilets and for irrigation.



## Commercial Fire Tanks



### Hidden Valley Raceway Darwin NT

These 2 x 200kl (144kl effective capacity) Static Water Supply tanks for emergency fire fighting were installed in early 2010 as part of a facility upgrade.



### Murray Goulburn Cobram VIC.

This project involved the demolition and rebuild of a 610kl fire tank at the Murray Goulburn Processing Plant. The entire project from demolition to rebuild was completed in under 3 days.



### High Rise Fire Tanks Melbourne CBD VIC

This recent example of some fire tank installations on top of a Melbourne high-rise building demonstrates the adaptability of our modular tanks. The project involved lifting the 2 x 25kl tanks in kit form by crane to the top of the high rise and installing on site. The tanks were completed in less than 2 days.



### Boc Karratha Karratha WA

BOC Karratha were required to install a fire ring main system with their ongoing expansion. Rhino installed 2 x 215 kl tanks with design criteria including Region D.



## Irrigation



### Canberra Showgrounds **Canberra ACT**

Rhino Tanks successfully completed this major project in the ACT which included the installation of 10 tanks throughout the Canberra Showgrounds (EPIC) site. The 3 largest tanks are a 1.5 Megalitre tank and 2 x 1 Megalitre tanks (pictured) and several smaller tanks all to store harvested rainwater for re-use back within the site.



### Curlewis Golf Course **Geelong VIC**

This recently installed 770kl water tank at the picturesque Curlewis Golf Course on the Bellarine Peninsular is used to store recycled water from the on-course sewerage treatment plant. The tank is filled and emptied every 2 or 3 days during warmer months to allow for overnight watering of the course.



### Tanks on Elevated Platforms

Rhino is regularly called on to replace old tanks on elevated stands such as this project in Darwin. The platform was refurbished and the 100kl tank was assembled on the ground and then entire platform and tank lifted into place for commissioning.



### Beverage 770kl Tank **Beverage VIC**

This 3.6m high 770kl Woodland Grey Colorbond tank was installed on a newly developed golf course near Beverage just north of Melbourne. The tank is to be used for storage of water for course irrigation.



## Municipality



### Tocumwal Town Water Supply **NSW**

This recently completed project involved the Rhino Tanks' installation team dismantling 2 old 300,000 Litre town water supply tanks and replacing with 2 new 330,000 Litre Corrugated Commercial Rhino Tanks. One of the tanks is for town water supply and the other for back flush. The entire process from dismantling old tanks to commissioning new tanks was completed within 24 hours.



### Sewell Reserve **Melbourne Vic**

Rhino specialises in providing a water storage solution for council sporting reserves where large capacity storage is required for irrigation. This typical project at a reserve in Melbourne involved the installation of 2 x 380kl Colorbond tanks for Moreland City Council to assist the water recycling project.



### Mathoura Town Water Supply **Mathoura NSW**

This project involved the replacement of an old town water supply tank for the small town of Mathoura in southern NSW. The old tank was dismantled and Rhino installed a new 330kl tank in exactly the same location.



### Elmore Field Days Site **Elmore VIC**

In October 2010 Rhino Water Tanks donated this 500 kl tank to the Elmore Field Days site in Victoria to collect rainwater off the new exhibitor's pavillion and then used as their emergency fire water supply and also for dust suppression during events.

## A Sample Of Rhino Tanks Proud Industry Partners







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