

INDUSTRIAL TANKS & PRODUCT APPLICATIONS



ASTRALMS TATAOARD

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ASTRALMS AF6:2006

BMP 557812 Tereng
BMP 557813 Crange
BMP 557816 Cavan

Bushmans has been manufacturing tanks since 1989. When it comes to water, chemical and general liquid storage, we deliver in the toughest conditions. You can rely on Bushmans for safe and reliable liquid storage. Bushmans extensive range of tanks provides you access to the most cost-efficient water and liquid storage product. Our poly tanks are made in one piece from UV stabilised polyethylene. Bushmans Aqualine range of steel tanks provides secure storage when large volumes need to be stored.



The Leading Manufacturer in Australia

Bushmans was established in 1989 and we developed our offerings with one objective in mind; to provide a comprehensive range of products and service levels to meet the needs of our industrial customers. Bushmans Industrial has become Australia's leading manufacturer of water, chemical and industrial solutions.

Tanks that stand the test of time

We conduct extensive research and testing of our polyethylene based industrial and chemical storage solutions. Time and time again it has been proven that Bushman's products are strong and dependable – built to last. Bushmans polyethylene tanks are manufactured at AS/ NZS4766 certified manufacturing sites across Eastern and Central Australia.

Bushmans has a comprehensive range of steel liner tanks (Aqualine range) designed for the industrial, commercial and fire water storage markets. Our industrial and steel tanks are supplied to a wide range of industries, including:

Mining & Resources

including extremely remote regions

Manufacturing

including food and chemical production

Water & Sewage

for private and public sector projects

Oil & Gas

coal seam gas, offshore processing

Government & Education

local schools, universities, TAFE

Commercial & Industrial Construction

wide range of construction projects

The polyethylene that Bushmans use in their chemical and industrial poly tanks is an advanced generation linear material that has been tried and tested in the Australian market. Naturally, Bushmans use only the best material, providing the highest strength and superior chemical resistance. In addition to our extensive range of standardised chemical, heavy duty and industrial storage tanks, Bushmans custom-design and manufacture tanks with fittings which align with specific customer requirements.

Tank capacities range from 1,000 to 46,400 litres for our polyethylene range with the option of a blank tank or a fully fitted tank. Bushmans Aqualine capacities range from 22,500 litres to 363,000 litres. Whether the project is a 1,000 litre chlorine tank for a swimming pool shop or a 1,000 tanks for a multibillion dollar gas project, Bushmans Industrial operation is structured to support and supply products from both the smallest to the largest projects across Eastern and Central Australia.

Why Bushmans Industrial?

Conveniently located manufacturing and distribution sites

Bushmans Industrial works across Eastern and Central Australia with manufacturing and distribution operations in Queensland, New South Wales, Victoria and South Australia. Bushmans is a full service operation from design, manufacturing to safe and timely delivery.

Superior engineering and design expertise

- High level of experience in working closely with customers to develop and build a specific product solution
- Engineered using Finite Element Analysis (FEA); all products have full service and general arrangement drawings available
- Design which includes customising existing Bushmans tanks to meet specific customer requirements to accommodate chemicals, higher densities and a wide range of temperatures
- New product design and manufacture for customer specific applications

Manufacturing capability

All Bushmans poly tank manufacturing operations use modern computer controlled moulding equipment along with the latest fabrication machinery.

Our operators and fitters are fully trained and qualified to ensure all products made, meet the stringent requirements of our customers, and adhere to the strict Bushmans quality standards.

Aqualine Steel tanks

Bushmans range of Aqualine steel tanks are designed and built for commercial and industrial applications, including stormwater management and fire water storage. Our Aqualine range of tanks are designed to meet the various Australian construction standards.

Documentation

For larger projects, Bushmans is able to provide high levels of documentation, documented processes, product tracking and process certification.

This documentation includes:

- · Process tracking
- · Quality assurance
- · Work Health and Safety
- Environmental standards
- Meeting the requirements of major engineering firms undertaking major projects



Bushmans Industrial Tanks are backed by our 5 year guarantee

Bushmans Industrial Polyethylene Tanks are Australian made and Bushmans have been designing and manufacturing tanks since 1989. This experience and know-how ensures you receive a quality product and peace of mind. Bushmans uses the latest in manufacturing technology and processes.





QLD NSW VIC SA
Inlet Height 2.08m (6'10")
Diameter 0.81m (2'8")
Total Height 2.08m (6'10")



 QLD Only

 Inlet Height
 1.51m (5'0")

 Diameter
 1.05m (3'5")

 Total Height
 1.51m (5'0")



QLD NSW VIC SA
Inlet Height 1.62m (5'4")
Diameter 1.19m (3'11")
Total Height 1.62m (5'4")



 QLD NSW VIC SA

 Height
 2.15m (7'1")

 Width
 0.71m (2'4")

 Length
 2.29m (7'6")



QLD NSW
Inlet Height
Diameter
Total Height
1.06m (3'6")
1.81m (5'11")
1.20m (3'11")





 QLD VIC

 Inlet Height
 1.82m (5'11")

 Diameter
 1.57m (5'2")

 Total Height
 1.96m (6'5")



NSW SA

Inlet Height
Diameter
Total Height

1.82m (5'11")
1.57m (5'2")
1.96m (6'5")



 QLD NSW VIC SA

 Height
 2.14m (7'0")

 Width
 0.80m (2'8")

 Length
 2.48m (8'2")



QLD NSW VIC SA
Inlet Height 1.30m (4'3")
Diameter 2.12m (6'11")
Total Height 1.46m (4'9")



QLD NSW VIC SA Height 2.10m (6'10") Width 1.06m (3'5") Length 3.34m (10'11")



QLD NSW VIC SA
Inlet Height 2.05m (6'8")
Diameter 1.85m (6'1")
Total Height 2.25m (7'5")



Inlet Height 1.78m (5'10")
Diameter 2.06m (6'10")
Total Height 1.86m (6'1")



Inlet Height 1.55m (5'1")
Diameter 3.08m (10'1")
Total Height 1.81m (5'11")



Inlet Height Diameter 3.08m (4'11") 3.08m (10'1") 1.70m (5'7")



 NSW Only
 2.24m (7'4")

 Inlet Height
 2.27m (8'5")

 Total Height
 2.44m (8'0")



QLD VIC SA

Inlet Height 2.16m (7'1")
Diameter 2.59m (8'6")
Total Height 2.31m (7'7")



QLD NSW SA
Inlet Height 2.20m (7'3")
Diameter 3.05m (10'0")
Total Height 2.44m (8'0")



VIC Only
Inlet Height 2.20m (7'3")
Diameter 3.08m (10'1")
Total Height 2.48m (8'2")



QLD NSW VIC SA
Inlet Height 2.20m (7'3")
Diameter 3.78m (12'5")
Total Height 2.56m (8'5")



QLD NSW VIC
Inlet Height 2.40m (7'10")
Diameter 3.73m (12'3")
Total Height 2.55m (8'4")



QLD NSW VIC SA
Inlet Height 2.68m (8'9")
Diameter 3.92m (12'10")
Total Height 2.87m (9'5")



QLD NSW VIC SA
Inlet Height 2.95m (9'8")
Diameter 4.60m (15'1")
Total Height 3.16m (10'4")

Bushmans Industrial tanks are available with different specific gravity ratings – strength or SG. These ratings are SG 1.2, SG 1.5 and SG 2. Note the T10500 is only available in SG 1.2 and SG 1.3.

The specific gravity (SG) type is the way Bushmans designs and manufactures its tanks to hold liquids of differing densities or weights. Our standard Industrial tanks are made to SG ratings between 1.2 and 2.0 at temperatures between -10°C and +40°C. Bushmans Industrial can build specific tanks to perform beyond these specifications.

All our industrial poly tanks have the following characteristics:

- Chemical barrier ensures tanks can be used in a range of applications minimising any material degradation
- Impact resistance which ensure the tank can be used in a wide range of industrial applications
- Long life and extremely tough, standing up to Australian weather conditions

What you need to consider

- Solids Amount of solids in the liquids and the density of these
- **Temperature** Temperature the liquid enters the tank and expected average temperature
- Fitting sizes The larger the fittings the larger the stress that is placed on the tank wall
- Impurities Type of chemicals stored and their concentration
- · Location and ambient temperature
 - If the tank is located in a high traffic area or an area where the ambient temperature is high, the grade of tank required may vary.

Selecting the right tank for the job

The Specific Gravity (SG) rating of a tank is critically important when storing liquids other than water or tanks that have large fittings installed. Bushmans will work with each customer to ensure the right grade of tank is supplied. The specific gravity ratings range from SG1 to SG2. Depending on the liquid stored, its chemical concentration and the operating temperature, the SG rating of the tank needs to be designed to be best suited for your application.



Custom Moulding & Fabrication Process

Bushmans Industrial is able to design and manufacture products which are tailored to the specific requirements of customers. The process is to understand the application and design and then build a product that meets the customer's operational requirements.

Selection and design

- Bushmans has the applications and engineering experience to be able to provide products to a wide range of industries including mining, water treatment, food industries and manufacturing
- Drawings are available if required or tanks can be made from customer drawings
- Bushmans will undertake FEA and engineering analysis of both the tank and fittings if required

Fitting and cutting

 Trained staff, experienced in undertaking the full fit-out process exactly to the design on the product drawings

Welding

- The welding of fittings and pipework is critical
- Bushmans employ welders who have been fully trained through accredited fitting and welding processes to ensure the highest quality product

Quality control

• Every tank goes through a quality control process to ensure the product is as per the specifications

Locating and installation

 Bushmans provides a comprehensive guide to how our Industrial tanks should be installed and maintained.

We have invested heavily in ensuring we produce the highest quality product to meet our customers' needs. With our factories and quality systems certified to the AS/NZS4766 standard, our customers get peace of mind with every purchase.

Bushmans Industrial Aqualine Water Tanks Range



Bushmans range of Aqualine steel liner tanks are ideal for a wide range of commercial and industrial applications. With sizes ranging from 22,500 litres through to 363,000 litres they are used for fire water storage, stormwater retention and detention, on site water storage and in water supply networks. The Aqualine range of tanks are fully engineered and built to the Australian Building standards. This ensures all our tanks are strong and will last the test of time.





AQUALINE WATER TANK SPECIFICATIONS

22500L ASL22.5	
Diameter	3.61m

Base Diameter 5.61m Wall Height 2.28m

32000L ASL32

Diameter 4.33m Base Diameter 6.33m Wall Height 2.28m

44000L ASL44

Diameter 5.06m Base Diameter 7.06m Wall Height 2.28m

58000L ASL58

Diameter 5.78m Base Diameter 7.78m Wall Height 2.28m

73000L ASL73

Diameter 6.51m Base Diameter 8.51m Wall Height 2.28m

90000L

Diameter 7.22m Base Diameter 9.22m Wall Height 2.28m

110000L ASL110

230000L ASL230

Diameter 7.96m Base Diameter 9.96m Wall Height 2.28m

11.57m

13.57m

2.28m

130000L ASL130

Diameter 8.68m Base Diameter 10.68m Wall Height 2.28m

152000L ASL152

Diameter 9.40m Base Diameter 11.40m Wall Height 2.28m

177000L ASL177

Diameter 10.13m Base Diameter 12.13m Wall Height 2.28m

203000L ASL203

Diameter 10.85m Base Diameter 12.85m Wall Height 2.28m

260000L ASL260

Diameter 12.30m Base Diameter 14.30m Wall Height 2.28m

325000L ASL325

Diameter 13.74m Base Diameter 15.74m Wall Height 2.28m

292000L ASL292

Base Diameter

Wall Height

Diameter

Diameter 13.02m Base Diameter 15.02m Wall Height 2.28m

363000L

Diameter 14.46m Base Diameter 16.46m Wall Height 2.28m



Bushmans Industrial and Aqualine Water Tanks are backed by our 10 year guarantee.



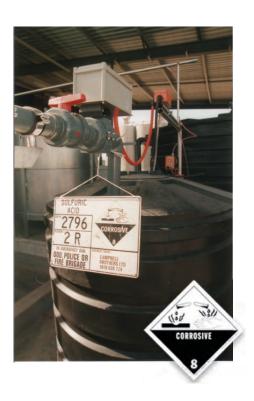
Bushmans Industrial Product Applications

Chemical Storage

Storage of a wide range of chemicals including corrosives such as chlorides, detergents, salts and a range of PH levels. Bushmans chemical compatibility chart provides details on chemicals that can be stored (view online at bushmantanks.com.au).

Typical Tank Configuration

- · Welded flange options available
- Range of outlet options available including threaded, HDPE, brass and stainless steel
- Features
- Range of polyethylene, stainless steel and other fittings available, designed to be compatible with the chemical stored
- Vent options available
- Range of level indicators including a clear sight indicator
- Top fill and side fill inlet pipe
- Available Specific Gravities (SG1-SG2.0)
- Full range of tanks available for chemical storage





Process Tanks used in Manufacturing

Bushmans Industrial tanks are used in a wide range of industrial and manufacturing processes, typically designed to integrate into an industrial process. Our industrial tanks can operate in a wide range of temperatures and even in underground mines. Fittings used in these tanks are specifically designed for the operation or process.

Typical Applications

- · Holding process water
- · Cooling water
- Settling tanks
- Integrated into manufacturing processes
- · Holding contaminated water

Agitation Tanks

Bushmans have specific tanks available which can have mechanical and hydro agitation equipment installed in a range of positions around the tank.





Dosing Tanks

Many manufacturing operations have a requirement for dosing tanks which store chemicals and other liquids that are used in a production process. These tanks can be designed and fabricated to suit the individual production process.

Chlorine Tanks

Bushmans Chlorine tanks are designed specifically for the storage and dispensing of liquid chlorine, typically used at swimming pools, pool shops and cleaning product facilities.

Features

- · Compatible fittings for chlorine storage
- Level indicator
- · Inlet pipe for easy and safe filling
- · Independent roof vent



Fire Fighting Water Storage

The use of Bushmans and Aqualine water storage tanks can be vitally important in aiding the protection of communities, businesses and buildings. There are many locations and operations that require water storage to be available for fire fighting. The water stored in a tank is often the only water available where the location is remote and not connected to reticulated water.

When installing a water tank for fire protection there are guidelines and fittings that must be included to ensure the setup is suitable for the application.

Typical Fittings

- Stortz fittings that can be connected to the different fire authorities hoses and fittings
- · Anti-vortex suction assemblies
- · Additional fittings make filling tankers more efficient



Typical Applications

- Storage of water for use in fire fighting and control in some process facilities
- Fire fighting requires specialist fittings to allow authorities to connect to the tank

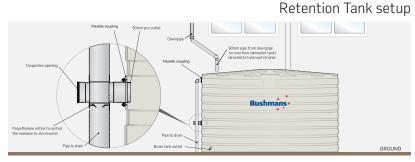
Stormwater, Containment and Collection Tanks

Stormwater, containment and collection tanks allow for the capture and storage of rain water and can be designed to manage large water flows from storms.

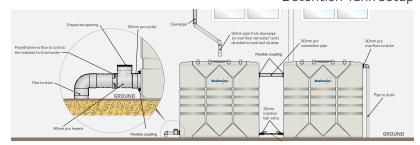
There is an increasing requirement for businesses and government organisations to install and maintain retention and detention tanks which are used to capture and store run-off water from commercial and industrial sites. Stormwater tanks are often mandated by government authorities and have a requirement for ongoing maintenance.

Typical Applications

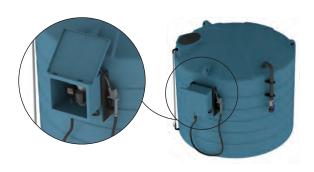
- · Rain harvesting
- Retention and detention
- Process water collection



Detention Tank setup







Bushmans Blue Station

Adblue® Storage and Dispensing Tanks

Adblue® storage and dispensing tanks are used to hold Adblue, NoNox or DEF which are urea based liquids used in modern diesel engine exhaust systems to reduce the emissions. The storage and dispensing of Adblue is an everyday operation for transport companies and other organisations using diesel powered engines. NB: Check with local authorities for any specific planning requirements around the storage of urea based fluids.

Typical Applications

Trucks, buses and other heavy diesel powered equipment. See manufacturer's specifications.

Features

- Tank is designed and built to hold urea based liquids
- Fittings including outlets, fill pipes, level gauges and valves are made to resist the corrosive effects of urea based solutions
- The filling pump and metering equipment is European made, designed specifically to be used with urea based solutions
- Bushmans Blue station is a turn-key solution and can be delivered to site ready to use



Water Treatment Tanks

Tanks are used extensively in the water treatment process whether it is for storage of contaminated water, for the storage of clean water or integrated into the treatment process. Bushmans has extensive experience in water treatment tanks with installations on major projects such as Barangaroo development in Sydney, major gas field projects in Queensland and throughout many local council treatment works.

Typical Applications

- Sewage treatment
- Desalination
- Gas production wells and processing
- · Process waste water
- Store contaminated and clean water

Features

- Extensive range of modifications and fittings allow the tank to be incorporated in the treatment system
- Fully engineered tanks and fittings using certified engineers
- Able to incorporate complex water treatment equipment inside the tank
- · Quality certified AS/NZS4766 standard

EXPERIENCE CORNER - waste & potable water storage

Power Station operation.







EXPERIENCE CORNER - coal mining - water storage (Hunter Valley, NSW)

Prefabricated and installed 450,000 litres of water tanks for large demand applications as per customer's construction drawings.

The tanks store water predominately for dust suppression on haul roads, water is pumped into tankers and sprayed onto heavy traffic areas.

The tanks are a group of $10 \times 46,000$ Litre, Industrial Grade, manufactured to SG 1.2 with factory fitted DN250 & DN300 stub flanges.

This is a turn-key solution for the large volumes of water storage required in this application where Bushman's fabricated and installed the tank flanges and fittings as per the customer's construction drawings. This allowed all the pipe work to be prefabricated prior to installation. Once the tanks were delivered to site, the connection and commissioning was quickly completed providing a fast, robust system that will satisfy the rigorous demands of most mining applications.







EXPERIENCE CORNER - water treatment/storage (Barangaroo Sydney, NSW)

Bushmans worked closely with Synergy to design each tank, including integrating water treatment equipment into the tank structure. 70 tanks hold 3.2ML.







BUSHMANS have been manufacturing tanks since 1989 and use this experience and level of expertise in every product we manufacture and every customer we deal with. Each member of the team is highly qualified to perform their duties and encouraged to develop their skill set through regular training and top up courses. With state based sites, manufacturing is localised with a full team close by to work with customers on project specific products. This ensures the right tank for the right site every time.

DELIVERY Bushmans provides specialist delivery and fit out services. This ensures that your new tank is delivered in 1st class condition and is fitted out to suit your individual needs. Our trucks and equipment are designed for efficient delivery and our staff are fully trained in unloading and tank fit out.



AQUALINE INSTALLATION Bushmans range of Aqualine tanks are assembled on site by our professional installation teams. This ensures that your new tank is installed to the highest standard.



POLY TANK COLOURS Available in 13 standard colours plus a range of optional colours enabling you to choose the colour that best suits your landscape, buildings or fences.



AQUALINE TANK COLOURS Available in standard galvanised, or choose from a range of powder coated colours, which provides a layer of protection from the elements as well as being able to match the colour to the landscape and buildings surrounding it.

GUARANTEE Bushmans tanks are Australian made and Bushmans have been designing and manufacturing tanks since 1989. This experience and know how ensures you receive a quality product and peace of mind. Bushmans uses the latest in manufacturing technology and processes.



10YR guarantee Aqualine Tanks. **5YR guarantee** Fertiliser, Molasses & Industrial tanks.

Experienced staff will answer all your enquiries and help you find the best solution for your water tank or industrial liquid storage requirement. All Bushmans factories are fully certified and qualified to manufacture tanks to the AS/NZS4766 Quality Standard, ensuring products produced in each of our plants are consistently made to the specified quality standard.

Call 1800 008 888. For the full range of products go online.

facebook.com/bushmanstanks

🛅 linkedin.com/company/bushmans-group-pty-ltd/

NSW NSW Vic SA Qld
18 Colliers Ave 70 Pitt St Cobden Rd 15 CB Fisher Dr 22 Jandowae Rd
Orange NSW 2800 Sydney NSW 2000 Terang VIC 3264 Cavan SA 5094 Dalby QLD 4405