

PIONEER GALAXY®

Water Storage Tanks



A C E R
Water Tanks Inc.

Master Dealer
Pioneer
WaterTank

PIONEER GALAXY® WATER STORAGE TANKS



PIONEER GALAXY® Water Tanks Standard Tank Sizes and Sand Pad Requirements

PIONEER GALAXY® Tank Range	Tank Dimensions		Total Tank Volume		Pad Size (Diameter x Depth)	Minimum Sand Required (approx.)*
	Diameter	Height	Us Gallons	Liters		
XL 01/02	8'10"	7'3"	3,000	11,356	11' 10" x 6"	2.5 yd ³
XL 04/02	11'0"	7'3"	5,000	18,927	14' x 6"	3 yd ³
XL 08/02	15'5"	7'3"	9,927	37,573	21' 5" x 6"	10 yd ³
XL 15/02	22'	7'3"	20,259	76,680	28' x 6"	17 yd ³
XL 23/02	26'4"	7'3"	29,173	110,419	32' 4" x 6"	24 yd ³
XL 30/02	30'9"	7'3"	39,707	150,292	36' 9" x 6"	30 yd ³
XL 40/02	35'2"	7'3"	51,863	196,300	41' 2" x 6"	38 yd ³
XL 50/02	39'6"	7'3"	65,639	248,442	45' 6" x 6"	48 yd ³

*Area and amount of clean sand required to prepare site for your PIONEER GALAXY® water tank. In some applications, a concrete ring beam will be required. Acer Water Tanks can provide further information about ring beam requirements.

RAINWATER HARVESTING

The practice of rainwater harvesting is a very old technique that is becoming increasingly common in the United States and around the world. Scarcity of water resources, the inherent quality of rainwater and an interest in reducing consumption of treated water has increased the importance of rainwater harvesting globally. Rainwater is a sustainable source of water when groundwater or other sources are unacceptable or unavailable.

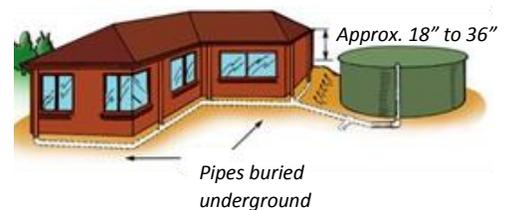
Benefits of Rainwater Collection

- Rainwater is free; the only cost is for collection and use.
- The end use of harvested water is located close to the source, eliminating the need for complex and costly distribution systems.
- Rainwater provides a water source when groundwater or other water is unacceptable or unavailable, or it can augment limited water supplies.
- The zero hardness of rainwater helps prevent scale on appliances, extending their use.
- The use of rainwater eliminates the need for a water softener and the salts added during the softening process.
- Rainwater is sodium-free, important for persons on low sodium diets.
- Rainwater is superior for landscape irrigation.
- Rainwater harvesting helps utilities reduce the summer demand peak and delay expansion of existing water treatment plants.
- Rainwater harvesting reduces consumers' utility bills.

More information is available in the "Texas Manual on Rainwater Harvesting".

RAINWATER COLLECTION METHODS

Rainwater Collection From House Roof Underground (Wet)



This is the most popular method of rainwater collection because of its neat appearance. Water is channeled via PVC water pipe below ground and up into the tank through the filter basket. It is important that the tank entry point is a minimum 18 inches lower than the roof gutter and that the PVC pipe is sealed and watertight. Please note, the farther the tank is from the house, the greater the height differential required.

Rainwater Collection from Shed Roof Overhead (Dry)



All PVC water pipes are channeled through the filter basket mounted on the roof of the water tank.

A LEADER IN WATER STORAGE SOLUTIONS

Pioneer is committed to the development of innovative solutions and manufacturing state-of-the-art products that contribute to the preservation and rejuvenation of the world's vital water assets.

PIONEER GALAXY® water storage tanks have been installed in more than 35 countries. Our modular tanks feature innovative AQUALINER® water storage liners, making them suitable for most water storage applications, including the storage of potable water.

PIONEER GALAXY® tanks draw on the very best proven technology, combining the most up to date research, engineering, and manufacturing techniques with the highest quality materials available-giving you a water tank of unsurpassed quality. The innovative modular design of PIONEER GALAXY® water tanks allows us to build all tanks with the confidence that your tank is built to last.



Benefits at a Glance

- Precision modular design that is "fully knock-down", enabling fast and simple assembly.
- Attractive pricing.
- Wind rated to 90 MPH (to ASCE 7.02) when partially or fully filled with water.
- Documented customer satisfaction for more than 20 years.
- Earthquake and hurricane rated tanks are available.
- AQUALINER® water storage liner is certified to ANSI/NSF 61, NSF Certified Drinking Water Components, for quality water.
- Protected against corrosion using sacrificial magnesium anodes, giving long service life.
- Appealing profiled steel exterior looks great in any application.
- 10 year written warranty* on tank and liner for peace of mind.

On Site Preparation

Other tanks may require a strong and compacted base. In areas of soft soil, stronger soils must be brought in to solve this problem. PIONEER GALAXY® tanks overcome this problem in two ways. The profiled steel wall absorbs any earth movement and will not distort under load. This assures that the wall panels will not stress, buckle, or tear due to subsidence. In addition, because PIONEER GALAXY® tanks feature a flexible reinforced polyethylene AQUALINER® water storage liner, stored water can follow the contour of the ground, compensation for movement and stress is moved to the main tank structure.

Our standard tank requires no special site preparation or costly foundations. For capacities up to 65,000 gallons, the only preparation requirement is a level six to eight inch layer of clean inert sand. Please note that seismic and high wind rated tanks may require a reinforced concrete ring beam.

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DELIVERING CUSTOMER SATISFACTION

Rigorous Testing for Peace of Mind

PIONEER GALAXY® water tanks are workshop built to appropriate standards, the manufacturing benchmark for consistent quality and workmanship. Designs comply with the relevant clauses of the following standards:

- AS 4100 Steel Structures Code
- AS 1397 Sheet steel and strip-hot dipped zinc coated or aluminum/zinc coated
- AS 1170.4 Earthquake Loads 1993
- AS 1170.2 Wind Loads 1989
- AMDT 1. Jan 1991
- AMDT 2. Jan 1992
- AMDT 3. Dec. 1993
- AS4020 Products for use in contact with drinking water
- AS 2832.2 Cathodic Protection of metals 1998
- AS 2239 Galvanic (Sacrificial) anodes for cathodic protection 1993
- AS 2419.1 Fire Hydrant Installations 1994 (Tanks)
- AS 1657 Ladders, Platforms & Walkways



We Value Customer Feedback

Everyone at Acer Water Tanks takes great pride in the level of quality and customer service that we provide. In order to continually improve, we invite your feedback on our service and the quality of our products.

Customer Testimonials:

"I was pleased with the strength and appearance of the assembled tank... the standard of workmanship was quite professional" – *Ross Wellman*

"These tanks are the highest standard that I've seen" – *David Barry*

If we require another large tank I would definitely opt for Pioneer and would most definitely recommend Pioneer to others" – *Tom Schoeffler*





AQUALINER® WATER STORAGE LINER

With a superior quality tank liner, PIONEER GALAXY® water tanks will stand the test of time. All standard PIONEER GALAXY® water tanks are fitted with Pioneer's exclusive AQUALINER® water storage liner.

We are so confident of its superior performance that we give it our ten year warranty* against leaking when used for potable water storage.

Technical Highlights

AQUALINER® water storage liners feature five material layers bonded permanently together by hot melt-laminating the layers under pressure, creating a homogenous single liner. It is virtually impossible for the layers to separate under normal conditions.

The closed protected environment that exists under the PIONEER GALAXY® dome roof tanks is ideal. No harmful ultraviolet light and no movement result in a long life span for our AQUALINER® water storage liners.

For heavy duty commercial or industrial applications, we recommend our INDUSTRIATEX® water storage liner.



The great strength of the AQUALINER® water storage liner is demonstrated by filling it without the structural support of a tank.

Rigorous Certification for Your Peace of Mind

Pioneer's AQUALINER® water storage liner is ANSI/NSF 61 certified, NSF Certified Drinking Water System Components. This certification demonstrates that our AQUALINER® water storage liner has been rigorously tested by an independent body to internationally accepted standards. As a result, AQUALINER® water storage liners meet the requirements for stored water intended for human consumption, giving you peace of mind.

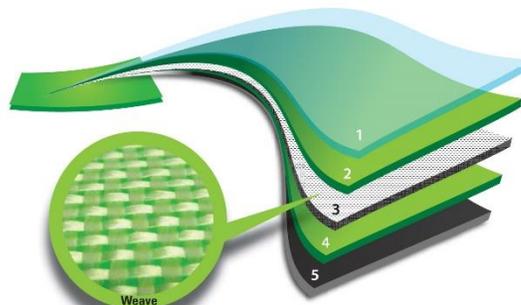
The light stabilizing component of the black layer of the liner has USA FDA, UK BPF/BIBRA as well as Japanese and several European countries' approval for contact with food.



10,000 gallon tank near Dallas



20,000 gallon tank in central Texas



- 1 Layer – Clear Polyethylene Film
- 2 Layer – Green Advanced Polyolefin Coating (3 layer extrusion)
- 3 Layer – Weave: High Tenacity Multifilament Polypropylene
- 4 Layer – Green Advanced Polyolefin Coating (3 layer extrusion)
- 5 Layer – Black Polyethylene Film



Certified to NSF/ANSI61

*Contact Acer Water Tanks for warranty conditions.

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LOW PROFILE METAL DOME ROOF



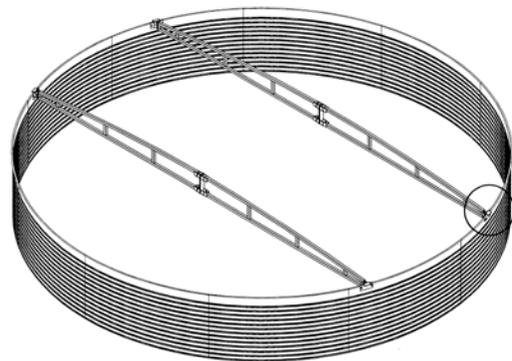
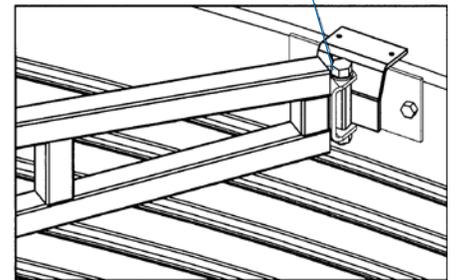
The metal dome roof offers strength and flexibility for new and existing tanks

PIONEER GALAXY® water storage tanks feature a low profile metal dome roof supported by hot dipped galvanized trusses.

The components of the PIONEER GALAXY® metal dome roof deliver a product that is strong, reliable, aesthetically appealing and flexible enough to suit most locations and water storage applications. The main features of the metal dome roof include:

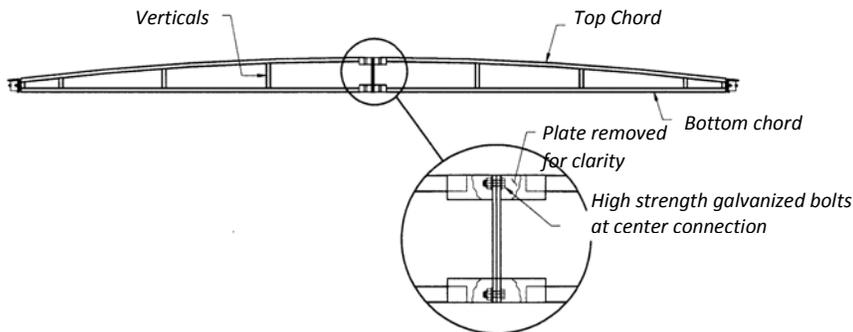
- Heavy duty steel super structure.
- Hot dipped galvanizing of all trusses.
- A low profile that doesn't obstruct views.
- Aesthetically appealing design.
- The ability to be custom made to suit existing concrete or steel tanks.
- Custom designed roofs available for high and hurricane force winds.

Pivoting action of truss foot enables correct alignment with tank wall, no matter where the truss lands

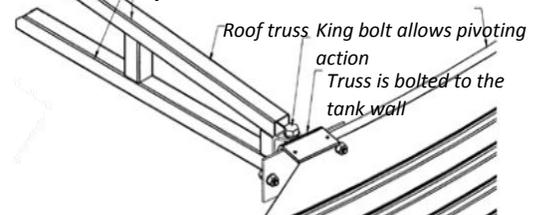


Plan of Tank

Engineered roof structure design assures correctly proportioned structural elements and load transfer from the roof to the ground



Strong, robust, galvanized square hollow section tube construction used for bottom chord as well as top chord of truss and also for verticals



EXTENSIVE STANDARD FEATURES

In addition to the AQUALINER® water storage liner and low profile metal dome roof, your PIONEER GALAXY® water tank comes complete with an extensive range of standard features and accessories:

- Removable leaf and debris catchment filter.
- Access hatch.
- Removable ladder.
- Geotextile membrane.
- Magnesium anodes to provide additional corrosion protection.
- Pest and dust protection.
- Polyethylene outlets and shut off valves.
- Overflow pipe.

Removable Leaf & Debris Catchment Filter

A polyethylene filter minimizes any buildup of organic waste at the bottom of your tank. The filter fits into the roof of the tank and lifts out simply for easy cleaning.



Removable Ladder

A removable domestic style internal/external ladder is supplied with tank. The ladder enables tank access for general inspection and cleaning and also to easily check the water level. It can be removed to prevent unwanted access.

Access Hatch

A lockable hinged access hatch opens easily to allow access to the interior of your PIONEER GALAXY® water tank.

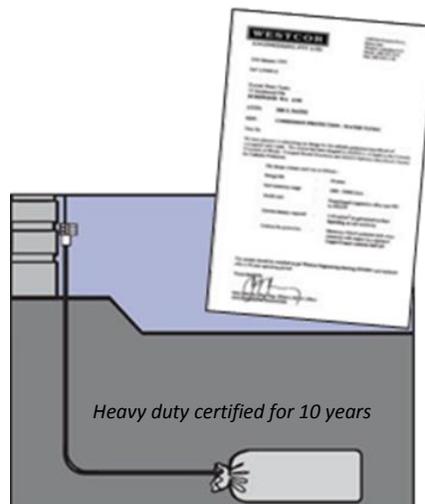
Geotextile Membrane

A geotextile membrane sits between the sand pad and AQUALINER® water storage liner. It is a 100% polyester non-woven material with high breaking strength.

The geotextile membrane provides additional protection against sharp objects such as stones or rocks that may damage or puncture the tank liner.

Magnesium Anodes to Provide Additional Corrosion Protection

Sacrificial (or cathodic) protection of steel has been around since the late 1800's. It is similar to the principle of protecting steel ships and oil rigs which have solid blocks of pure magnesium bolted to the hull below the water line. By attaching magnesium anodes to PIONEER GALAXY® water tanks, life is significantly extended. Electrolysis diverts to the magnesium, being the more reactive metal, and gradually corrodes, leaving the steel wall intact. This system has been designed and certified to the Australian Standards Cathodic Protection of Materials AS2832.2 (1991), Compact Buried Structures and AS2239 (1993) Galvanic (Sacrificial) Anodes for Cathodic Protection. Under normal conditions, the anodes should be replaced every 10 years.



Pest and Dust Protection

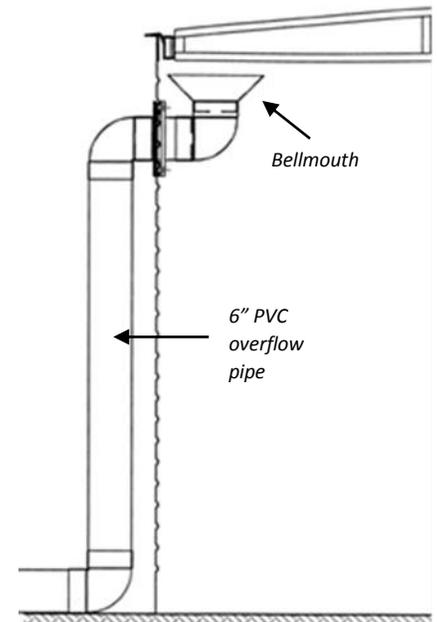
Your stored water is protected from dust and insects by installing a strip seal Presstite between the roof and the top edge of the tank. This filler makes a tight seal, which prevents invasion. This simple but effective method will give the added assurance that your water supply will remain clean and pure.

Polyethylene Outlets & Shut Off Valves

Polyethylene fittings significantly reduce the risk of corrosion and assure a long serviceable life for your tank. Each PIONEER GALAXY® water tank is supplied with high density polyethylene (HDPE) fittings, including a two inch outlet and ball valve. Larger fittings are available via special order.

Overflow Pipe

Standard PIONEER GALAXY® water tanks are supplied with a six inch overflow and PVC drainage pipe to channel excess water away from your tank's sand pad.



OPTIONAL ACCESSORIES

We stock a full range of optional accessories to help you receive even more benefits from your PIONEER GALAXY® water tank. Acer Water Tanks can help you custom tailor a package of optional accessories to meet your water storage needs.

Fascia

This unique fascia strip has been designed specifically with safety and aesthetics in mind. The fascia strip is fitted around the outside diameter of the tank where the corrugated steel roof sheeting finishes. It protects people from any sharp edging. The fascia complements the tank design and adds to the aesthetic appeal of the tank.



Floating Suction Filter

This suction strainer floats about 12" below the surface of the water, removing the cleanest water from the tank. It provides protection from foreign objects which may be introduced into the tank. The floating ball is made of polyethylene and the filter is made of stainless steel. Sold with adapter that threads into the standard 2" Pioneer Tank outlet inside the tank.



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Liquidator 2 Water Level Gauges

We carry the Liquidator 2 water tank level gauge. The gauge's weighted float and indicator are connected to a counterweight by separate cords, each cord running over a pair of pulleys. At all times the indicator matches the water level exactly.

Fire Hose Fittings

Many of our customers find value in having their PIONEER GALAXY® water tanks as a potential firefighting source. We stock a range of firefighting fittings that provide instant access to fire reserve storage in case of emergency, for added peace of mind.





SIMPLE DELIVERY AND EASY INSTALLATION

Simple and Efficient Delivery and Assembly

PIONEER GALAXY® water storage tanks' modular structure makes their delivery, assembly and installation considerably easier than construction of a concrete tank. Once packaged, our lightweight tanks can reduce to just 1% of their assembled size, so they fit neatly into a truck trailer or even a helicopter. Standard tanks up to 65,000 gallons can be installed in less than one day- no fuss and no mess. Acer Water Tanks' fully trained installers are familiar with local conditions and terrain, which helps assure speedy installation.

Personal Service for Your Installation

With installers worldwide, Acer Water Tanks is able to install your tank almost anywhere. All installers are fully trained and experienced with building PIONEER GALAXY® tanks.

We know that local knowledge is important. "Where can I get good, clean sand?", "How do I contact an excavator?" or "How far from the house or barn roof can I locate the tank?" are common questions we receive. With the help of our installers, these issues are easily resolved.

Each of our installers services a defined territory. The delivery, installation, and after-sales service is managed by your local regional installer. It is their job to contact you prior to delivery to confirm your order details. They will also confirm an installation date, weather permitting. Your local installer will then deliver and install your new tank.

It is preferable that you or your representative be on site when the installers arrive, to assure that the tank is oriented correctly. The inlet, outlet and overflow will then be located in the most economical and convenient position. Finally, a visual check of the completed tank is made after which you will be presented with your warranty* and maintenance manual. At this time, the installer will require payment (unless other arrangements were made prior to installation). To locate your nearest installer, please contact Acer Water Tanks at 877-223-7784.

PIONEER GALAXY®
Water Storage Tanks-
proven quality
worldwide for more
than 20 years



A water tank packed and ready for delivery



Two water tanks ready for installation



A sea container loaded with water tanks



A helicopter waits to take a water tank to a remote area. The size of the packaged water tank allows for installation in isolated or difficult sites

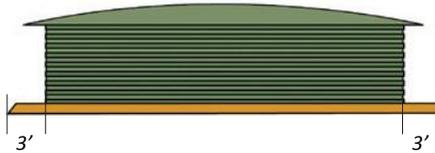
SITE PREPARATION IS IMPORTANT

PIONEER GALAXY® water tanks are engineered to withstand hydrostatic pressure and some earth movement. However, it is important to prepare the site properly to assure that your tank offers great performance over many years. Key requirements are depicted in the following diagrams.

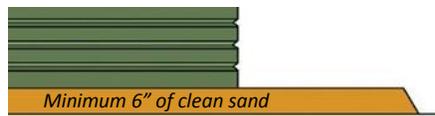
Please contact Acer Water Tanks or your installer before you begin preparing your site if you have any questions about these important requirements.

BEFORE Your Tank is Installed

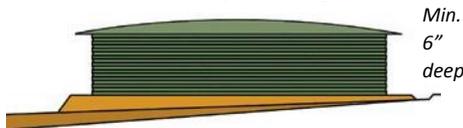
Tank site must be level, flat and at least 6' wider than tank diameter



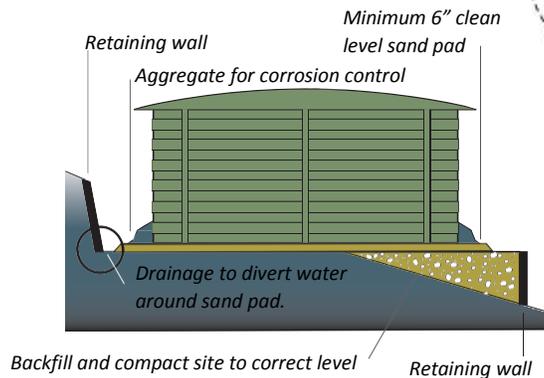
Base must be a minimum 6" deep and free of sticks, stones, and debris



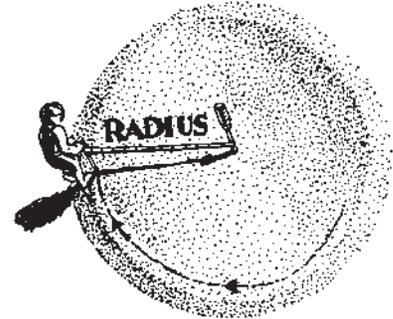
For tanks installed on slightly sloping sites



For Tanks Installed on Steep Sloping Sites

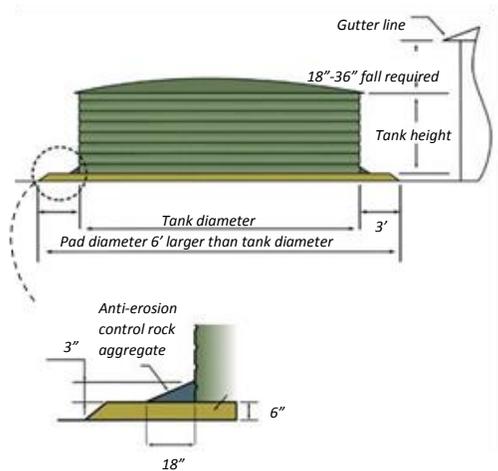


Preparing Your Sand Pad



A straight screed with the use of a spirit level will confirm the level of your sand pad. At this point, a light raking will help check for any debris that could damage your AQUILINER® water storage liner. Make sure that your pad is 6' wider than your tank (and 3' away from your tank wall) and at least 6" deep. Your pad is then ready for tank installation.

AFTER Your Tank is Installed



Inert rock aggregate must be placed around the base (circumference) of your tank after installation. Failure to do so will void all applicable warranties.* It is recommended that a load of water (a minimum of 2600 gallons) be delivered at the completion of construction. If, however, your tank has been left empty for any period of time, please contact either Acer Water Tanks or your local installer.

*Contact Acer Water Tanks for warranty conditions.

EASY ASSEMBLY

PIONEER GALAXY® water storage tanks' modular structure makes their delivery, assembly and installation quick and simple. Most standard tanks up to 65,000 gallons can be installed in less than one day.



Marking tank diameter



Construction of first ring



Gluing Presstite to top rim of tank



Fitting dome roof trusses



Trimming roof sheets to tank diameter



Fitting access hatch

INSTALLATION OVERVIEW



First ring is completed



Fitting second ring



Fitting and securing AQUALINER® liner



Laying and fitting steel roof sheets



Fitting filter basket



Completed tank (Don't forget your aggregate)

With almost limitless applications, PIONEER GALAXY® water tanks have been installed in more than 35 countries.

COUNTLESS APPLICATIONS

Municipal and Industrial Water Storage

One of the PIONEER GALAXY® water tank's greatest strengths is its versatility. With a proven track record in ranch and residential applications, it is quickly establishing the same reliable reputation in the municipal and industrial marketplace.



Industrial

Available in a range of sizes up to 700,000 gallons with a large selection of height to diameter ratios, PIONEER GALAXY® water tanks are adaptable to most situations. Mining operations, for example, are usually located in areas that are difficult to access. PIONEER GALAXY® water tanks are the ideal choice for remote mining and other industrial applications. Their modular design simplifies and expedites both transportation and installation.



Municipal

Fire Water Storage

Individuals, housing developments and businesses are increasingly using PIONEER GALAXY® water tanks for private fire water storage. Not only does immediate access to firefighting water provide peace of mind, it can also lower insurance premiums.



Industrial fire fighting



WARRANTY

Pioneer GALAXY™ Water Storage Tank and Liner

Pioneer Water Tanks (Australia 94) Pty Ltd ("Pioneer") proudly stands behind its products and history of service to its clients.

Pioneer warrants the steel structure of the tank body and the liner water retaining membrane against defects in workmanship, for a period of ten years pro-rata limited in total to the original purchase price from date of installation.

In order to ensure that the best service is provided, this warranty is conditional upon quoting the job number in any warranty claim. The job number is clearly displayed on this warranty form provided at the time of payment.

Warranty only applies to:

Tanks installed on either a clean inert sand pad, reinforced concrete slab, ring beam or steel platform, and in accordance with Pioneer site instructions.

Tanks fitted with a Pioneer steel dome or cone roof at time of installation.

Tanks that are installed by Pioneer installers, Distributors or in accordance with Pioneer procedures and instructions and aggregate has been placed around the tank as specified.

Tanks where the anodes are replaced no later than 10 years from installation date, by Pioneer or one of their agents.

Tanks where maintenance has been carried out in accordance with the Pioneer Maintenance Manual.

Tanks where payment has been received in full.

Warranty does not cover damage or leakage of tanks due to:-

Storage of products other than potable water.

Misuse or abuse of tank or liner.

Accidental or malicious damage.

Natural disasters (Force Majeure).

Damage from vegetation or root intrusion.

Damage caused by vermin, pest or livestock.

Corrosion caused by adverse conditions.

Damage as a result of long term unreported leakage.

Pioneer does not cover loss of water or consequential damage caused by leakage.



Subject to the above conditions, Pioneer will, at its sole discretion, repair or replace the tank body or liner should leakage develop due to a fault in workmanship within the warranty period on a pro rata basis.

This warranty is fully transferable to new owners where the existing tank is installed. The new owners must notify Pioneer within one calendar month of the transfer of title.

Tank:

Owner:

Address:

Date:

Job Number:





www.acerwatertanks.com

Acer Water Tanks is not a designer of water management systems or a consultant in relation to their use. All information in Acer Water Tanks' published literature is accurate to the best of the writer's knowledge.

Acer Water Tanks will not be responsible for the consequences of any information in its published literature or any technical advice given by its employees in relation to the design, installation and use of these products.