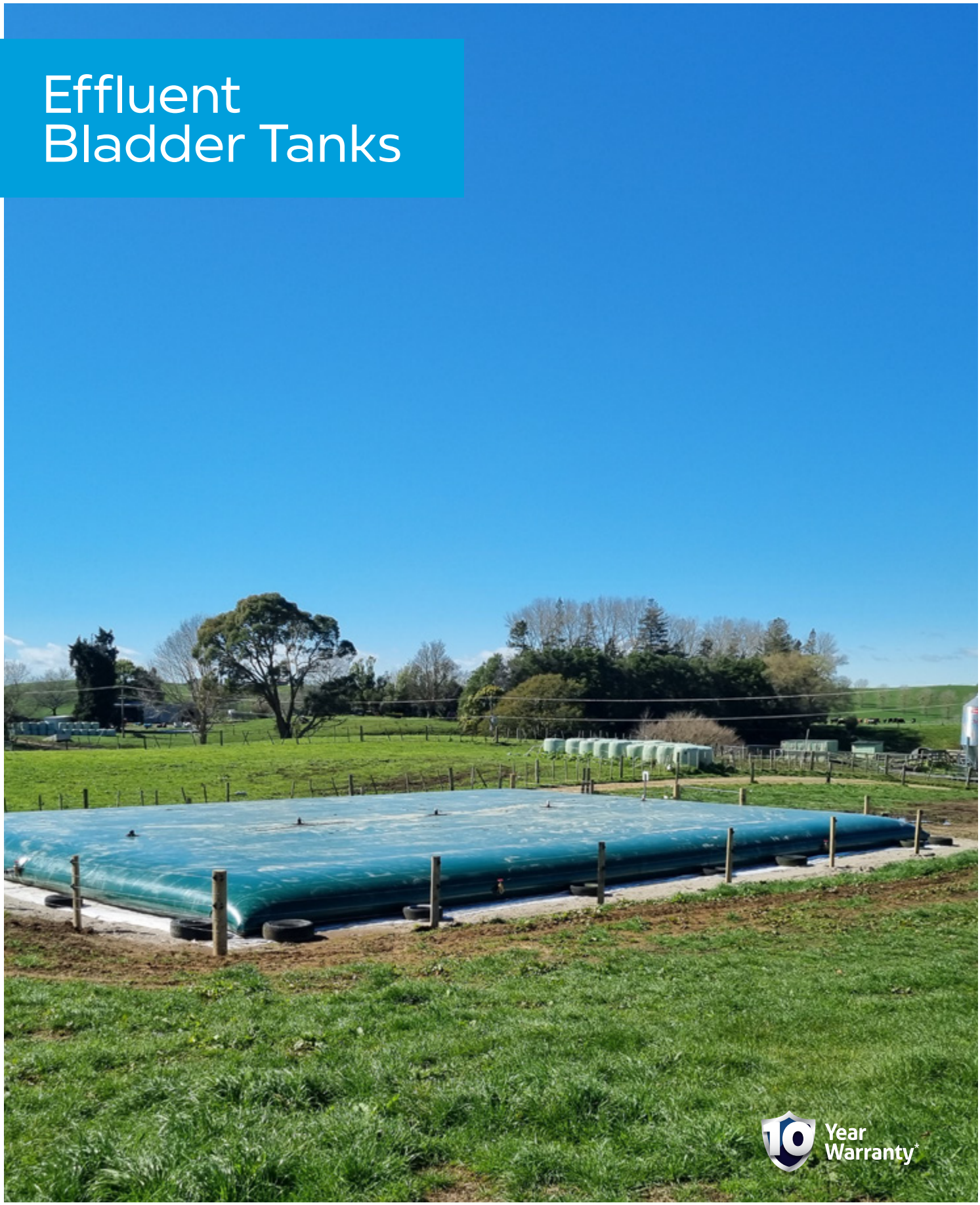
Effluent Bladder Tanks



Specialist provider of
DAIRY EFFLUENT EQUIPMENT

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nevada®
Sustainable Effluent Management

Will a Bladder Tank Work For You?

Nevada bladder tanks are safe, efficient, and built to last – the ideal closed storage solution for modern dairy farmers.

Closed Storage Solution

For dairy farmers in New Zealand and Australia, bladder tanks are proving to be one of the smartest and safest ways to manage effluent storage. Unlike open ponds, bladder tanks are fully enclosed, so there's no dilution from rainfall, no overflow in wet weather, and no risk of animals or people falling in. Your nutrients stay concentrated, odours are minimised, and neighbours stay happy.

Quick & Easy to Install

Bladder tanks require minimal earthworks and can be set up on a flat site close to your cowshed – saving you power, consent costs, and time. Many farmers use them as deferred storage above a sump, pumping effluent in and then letting gravity feed it back when required. And if you move, your bladder tank can move with you.

Efficient & Sustainable

By closing off effluent from external contamination, bladder tanks prevent oxidation, evaporation, and crusting. Nevada bladders come with multiple mixing valves, so nutrients stay evenly suspended and ready for effective application back to pasture. That means more value from your effluent, less reliance on synthetic fertiliser, and a safer, more sustainable system.

Built Tough with Advanced Technology

Nevada bladder tanks are engineered from the finest technical fabrics for exceptional puncture resistance and durability. High-frequency welding ensures every tank meets ISO 9001 standards, while composite textile membranes reinforced with PES woven fabric deliver unmatched stability and resistance to stretching. With multiple protective polymer layers, our tanks resist shrinkage, capillary ruptures, and wear – even in tough farming conditions. They're also foldable, transportable, low-maintenance, and earthquake resistant.

Peace of Mind

With a 10-year warranty (from date of manufacture) and proven performance across farms in both Australia and New Zealand, Nevada bladder tanks give you the confidence that your effluent storage solution will go the distance.

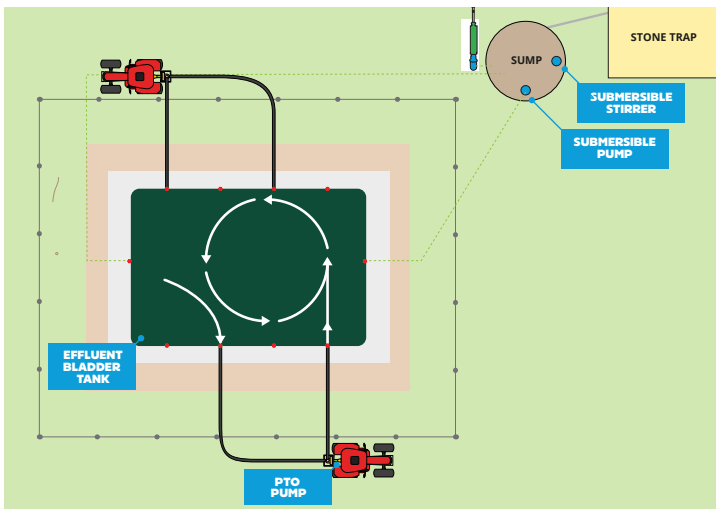
More sizes available.

Model	300m³	500m³	800m³	1000m³	2000m³
Dimension Empty	13.32x17.47m	16.28x22.94m	19.24x30.2m	20.72x34.70m	35.52x39.23m
Max Height	1.6m	1.6m	1.6m	1.6m	1.6m
DN80 Overflow	3	4	10	10	10
Side DN80 Mixing Valves	5	5	10	14	16

Multiple tanks can be placed in-line for a larger storage Volume

Benefits

- No oxidation, external contamination or evaporation
- Limited smell as tanks are totally enclosed (gas vents included)
- No crusting on top of effluent
- Storage capacity up to 2,000,000L, or simply connect multiple bladder tanks to increase storage
- Multiple valves to assist with stirring
- Quick and easy to install
- Low maintenance
- Fold-able and transportable
- Earthquake resistant
- Safe - no risk of people falling in
- 10 year warranty from date of manufacture



Advantages

- Very high mechanical quality
- Better resistance to acidic and basic effluents
- Specific design for flexible tanks
- Hydrophobic coating for higher durability
- Outstanding weight / resistance compromise
- Anti-UV and anti-fungal formulation
- Resistance to high and low temperatures

Material Specifications

Coating type	PVC
Finish	Two-sided varnish
Material	PES
Thread	1100dtex
Weight	1300g/m^2, ISO 3801
Frame breaking strength (warp/weft)	4000/3800 N/50mm NF EN ISO 1421 or DIN 53354
Resistance to tears (warp/weft)	350/350 N/50mm DIN 53363
Resistance to puncturing	8000/1500 N NF EN ISO 12236 / ISO 17103
Elongation at break	15-30% DIN 53363
Temperature resistance range	-30/+70°C , EN 1876-2
Armour	P2/2
Adhesion	11 da N/50mm NF EN ISO 2411

This technical information is for minimum medium values with a tolerance of +/- 10%.

HOW TO STIR
A Bladder Tank

As with any effluent storage system, it is critical that the bladder tank is thoroughly stirred. Bringing the effluent into suspension helps avoid heavy sediment building up on the base of the bladder and over time making it difficult to mix in the future.

To adequately stir the bladder, utilise the ports around the tank by sucking effluent out through one port and pumping it back into the bladder through another port with a high-volume PTO effluent pump. (If a PTO pump is not available, then a very large capacity motorised trash pump could be an option).

Whilst pumping, a swirling motion is created bringing all the effluent into suspension. Switch to the opposite side to work around the different ports to make sure the tank is adequately stirred before irrigating.

On average, a bladder tank should be mixed for a **minimum of 30-60 minutes, every one to two weeks**. However, it may take longer if the tank has been left stagnant for several months. We recommend stirring thoroughly every time before the tank is emptied or any fluid is sucked out.

As the rules change, we've had to change with them.

Located in Matapu in South Taranaki, Trevor McCallum runs a farm that extends 80 hectares and milks around 160 cows on 64 hectares of the land. After downsizing from 260 cows and selling off some land, Trevor was looking for an effluent system that could be upgraded to meet new requirements and simplify operations.

Time for an upgrade

With an all grass fed system, the farm operates across mostly flat land with some hills sloping towards the river that runs through the farm. When it was time to upgrade from a system that was in place from 1986, Trevor contacted Nevada to find the best system that could be implemented with little disruption to daily milking.

The problem

Before implementing a system from Nevada, Trevor was operating with oxidation ponds. The clay lined ponds would often fill up at the wrong time of the year, making it difficult and inconvenient to empty out. Trevor often utilised a contractor to empty the ponds, but with issues of lack of completion of the job and no ability to divert water when the ponds filled quickly during periods of high rainfall, he found it difficult to manage. With his new Bladder Tank system designed, supplied and installed by Nevada, he can now have full control over operations.

Trevor remarked that, "As the rules change, we've had to change with them. And we've changed to a system which we believe is the right one to use."

The solution

He decided to go with a **300m³ Nevada Bladder Tank**, a **Double Sand-Trap** in-line from the cow shed, a **sump** that is fitted with a **Submersible Stirrer**, and **Submersible Vortex Pump** with a float switch system. When the sump reaches a specified level, the submersible pump kicks in to pump the effluent to the bladder tank for storage. As the weather permits, the effluent can be transferred through the **1890 Progress Cavity Effluent Pump** that sends the effluent out to the **Spider Deluxe Travelling Irrigator**.

While the system has only been in for a few weeks, it has been running seamlessly from day one. The effluent management system is conveniently automatic, even when it is raining. The process is as simple as flipping a switch for where the effluent is directed. The only thing Trevor has to worry about is shifting the irrigator.

Smiles all round

When asked about his experience working with Nevada, Trevor commented 'With the install it was really good, actually. They gave me a ring and told me they had everything to go and they really got onto the job and got it done. They communicated really well with me, and they just came and did the job. In 2 weeks and all done!"

In Trevor's words, "I'm quite happy, very happy."

Watch Video Online

AT-A-GLANCE
Trevor McCallum

REGION
South Taranaki

FARM SIZE
80ha

CONTOUR
Flat with some hills

COWS
160

INPUTS
Grass and Silage

EFFLUENT STORAGE
300m3 Nevada Bladder Tank

PRODUCTS
- 300m3 Nevada Bladder Tank
- Double Concrete Sand Trap
- Submersible 2.2Kw Pump
- Submersible 1.1Kw Stirrer
- 1890 PC Effluent Pump
- Spider Deluxe Travelling Irrigator
- Mainline & Hydrants

Figures are approximate only.

"As the rules change, we've had to change with them. And we've changed to a system which we believe is the right one to use"

Effluent Bladder Tank FAQ's

1. Can using an effluent bladder tank help reduce methane emissions on my farm?

Yes. Unlike open effluent ponds, which allow methane (a potent greenhouse gas) to escape into the atmosphere as effluent breaks down, bladder tanks are fully sealed. This sealed design greatly reduces the conditions where methane-producing microbes can thrive, meaning less methane is released. As a bonus, bladder tanks can also be paired with gas-capture systems, turning potential emissions into a usable energy source.

2. What are the necessary steps for preparing the ground?

Nevada provides you with a complete checklist for site preparation.

3. What is the optimal positioning for a Nevada water storage bladder tank?

Place the bladder tank on a stable, flat surface near the water source for easy access and maintenance. Ensure good drainage, avoid flood prone areas and comply with local regulations. Nevada provides a detailed checklist for the setting up and installation of your Bladder Tank.

4. What kind of maintenance do they require?

Bladder tank's need regular inspections for leaks, periodic cleaning, checking valves and fittings, ensuring vents are clear, and maintaining any pumps according to instructions.

5. How durable are bladder tanks? (UV, punctures, seams, fabric)

Nevada bladder tanks use top-tier, rip-stop reinforced fabric with high tensile/tear strength and excellent flexibility to handle torsion. Seams are heat-welded, corners are four-pad reinforced, and outer coatings resist UV and fungal growth.

Durability still depends on correct installation and use: a smooth base, keeping sharp objects away, not overfilling (use the level gauge), and regular inspections.

6. What warranty comes with Nevada's bladder tanks?

All Nevada bladder tanks come with a 10-year manufacturer's warranty, starting from the date of manufacture. This warranty covers defects in materials and workmanship when the tank is used and maintained in line with the manufacturer's guidelines.

See the bladder tanker warranty details here: www.nevadagroup.co.nz/about-us/warranty/

7. How long do bladder tanks last?

They've been in some of the harshest conditions around the world and are still going strong after 20 years.

8. Are they designed for effluent storage?

Yes, the Nevada bladder tanks are specifically built for liquid effluent storage. They're designed to hold dairy effluent safely and effectively.

9. Where are they manufactured?

All Nevada bladder tanks are manufactured in France. The manufacturer is ISO9001 certified for the design and manufacture of bladder tanks.

10. Can you move a bladder tank later after installation?

Yes, our effluent bladder tanks can be moved after installation. They're designed to be somewhat portable and flexible, allowing for relocation if necessary.

11. Is there a possibility that the bladder tank can burst?

Our bladder tanks are built to withstand tough conditions, but as with any effluent storage solution, damage is possible if they are misused or exposed to unexpected events. The main risks include punctures from sharp objects, overfilling past the tank's limits, or accidental damage from machinery.

Regular inspections and proper usage in line with the manufacturer's guidelines will greatly reduce this risk. Every Nevada bladder tank is supplied with a colour gauge to indicate capacity levels, and for our standard stocked sizes, the bladder tank must not be filled beyond 1.5 metres. (Refer to Question 5 for more details.)

12. What is the capacity range of Nevada's water storage bladder tanks?

We hold capacity range from 300m³ – 2000m³, Although the range available for indent is from 1m³ – 2,000m³. You can also join bladder tanks together to create the volume you need.

13. What materials are used in the construction of a bladder tank?

Composite textile membranes are engineered with a PES (Polyester) woven reinforcement that delivers unparalleled dimensional stability and outstanding resistance. This makes them very flexible.

14. How long is the installation process?

Our installation process for bladder tanks typically takes a few hours to a couple of days, depending on the tank size, site preparation, and specific installation requirements. Nevada provides a complete checklist for site preparation prior to Nevada's install team arriving on site. Setting up the bladder tank is normally completed within a day.

15. What size will I need?

To determine the size of the bladder tank you need, consider your water usage, application (residential, commercial, industrial), available space, and regulatory requirements.

16. What liquids are suitable to store in a Nevada bladder tank?

Our bladder tanks are built for cool water and dairy effluent/manure/slurry use. Remove as much as much sediment and solids as possible through sand and stone traps before the fluid enters the bladder tank.

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