

THE Overflow



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NewGround

So, What Is Vortex Technology?

Vortex Generators are an ingenious solution! They have a maintenance-free design, a long service life of 10 to 15 years, and ease of integration into both new and existing water systems. It makes them a smart long-term investment and best of all, these devices accomplish their work seamlessly without any moving parts to worry about.

The science behind Vortex Water is simply elegant, essentially it is water that has been dynamically 're-energized,' taking on qualities akin to natural rainfall. As the water flows through the vortex generators, it undergoes a transformative journey that restructures it physically, yet avoids the use of chemicals. Imagine the water swirling dynamically, its molecules realigned, emitting a subtle negative electrical charge, and enriching the surrounding soil with more accessible oxygen.

With the implementation of a vortex treatment system, there comes a host of predicated & compelling advantages, all of which are very much tangible benefits.

Embracing a Vortex Future

Through firsthand experience, Australia understands why the world's most precious resource is water. We know that every single drop counts and globally there must be a constant involvement in water conservation to ensure the longevity of such a vital life resource.

As environmental and regulatory pressures mount, industries and governments alike actively pursue water conservation methods that will assist in safeguarding such a precious resource.

Globally this pursuit touches vast expanses of agricultural land, public open spaces, sporting and recreation facilities, domestic/residential, commercial/municipal environments and so much more.

Australia being the driest developed nation in the world, has extreme demand for water services and irrigation products in harsh conditions and vast remoteness. This is why NewGround Water Services (NewGround) has always understood the undeniable importance of Water Usage Efficiency (WUE), and why we are committed to delivering reliable, sustainable water solutions that are energy efficient and proven to Australia and its community. Through continuous searching for clever, unique, innovative solutions and products that exceed expectations as well as building strong relationships with our industry partners, we found a product called a Vortex Water Generator that is both smart science technology and innovation.

THE BENEFITS OF VORTEX

- Water savings of 10-30%.
- 5-8% reduction in energy for water pumping – decreased power bills.
- Enhanced germination rates for plants.
- Strengthened plant resilience to temperature extremes.
- Amplified agricultural yield.
- Minimised need for fertilizers & additives.
- Scale buildup mitigation or complete prevention.
- Even soil moisture distribution.
- A decline in pest occurrences due to increased plant vigour.
- Lowered water friction losses.



Aerial view of Gwynne Park.
Case study commencement
March 2024.



Case Study – Turf Transformation with the City of Armadale

Now that we had the Vortex Water Generator it was time to put it to the test to gather some data and see these tangible results firsthand. After speaking with the City of Armadale in Western Australia, (The City) and listening to their water initiative plans, we agreed that a case study conducted within The City would be a testament to the effectiveness of Vortex Generators.

It is encouraging to see Local Government embracing new technology on such a critical issue and taking some progressive and positive steps to be leaders in water conservation. The following is a great example of partnering with The City and other water industry specialists to trial and showcase how embracing Vortex Technology maximises every millimetre of applied water.

Gwynne Park within The City was identified as the preferred location to carry out the case study. Gwynne Park is a 13-hectare, Kikuyu grassed, multi-use sporting precinct. In early March 2024 we commenced the 12-month case study through the supply and installation of a 100mm Vortex Water Generator and reduced the already

programmed water times by 25%. On fire up of the irrigation system after installation, The City's Parks Supervisor who was present at the time commented he saw immediate improvement in the pressure, reach, coverage and droplet diffusion.





Adam Basten, Business Development Manager at NewGround oversaw the installation and, expressed enthusiasm regarding the observed positive outcomes by The City so quickly after installation. Adam also anticipates that during the trial we will see ongoing enhancements in the turf quality, as well as sustained water and energy conservation efforts throughout the

irrigation season. It is this perspective that underscores NewGround's and The City's ongoing commitment to environmental developments as well as continual improvements in operational practices.

We are now a little over a month into the trial and despite some challenging conditions, including sparse rainfall and high temperatures, the turf has shown some remarkable improvement in its soil moisture consistency as well as regeneration after just three weeks. The City's feedback indicates that the oval condition has shown no deterioration to the turf since the installation of the Vortex Water Generator, whilst dropping back the watering time by 25%. The velocity of the water coming out of the sprinkler is higher than when the irrigation was originally installed, and this has led to an increase in coverage from the sprinklers.

Embracing The Future of Water Management

From local innovation to a global

solution! These remarkable units which range in size from 25mm to 300mm, are engineered with precision in Bunbury, Western Australia. While the United States currently stands as the largest market, the Vortex technology has also established its roots throughout the United Kingdom, Europe, New Zealand and Africa.

The ear of water stewardship calls for a shift in how we engage with our environment. The Vortex Water Generators offer a sophisticated, yet elegantly simple method to maximise water efficiency. It's not just about saving water, it's about empowering every single droplet to do more by nurturing our ecosystems, and ensuring we are working towards securing a sustainable future.

If you are interested to learn more about this ingenious product or request an onsite appraisal, please contact the NewGround team www.newgroundwaterservices.com.au/contact-us/

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