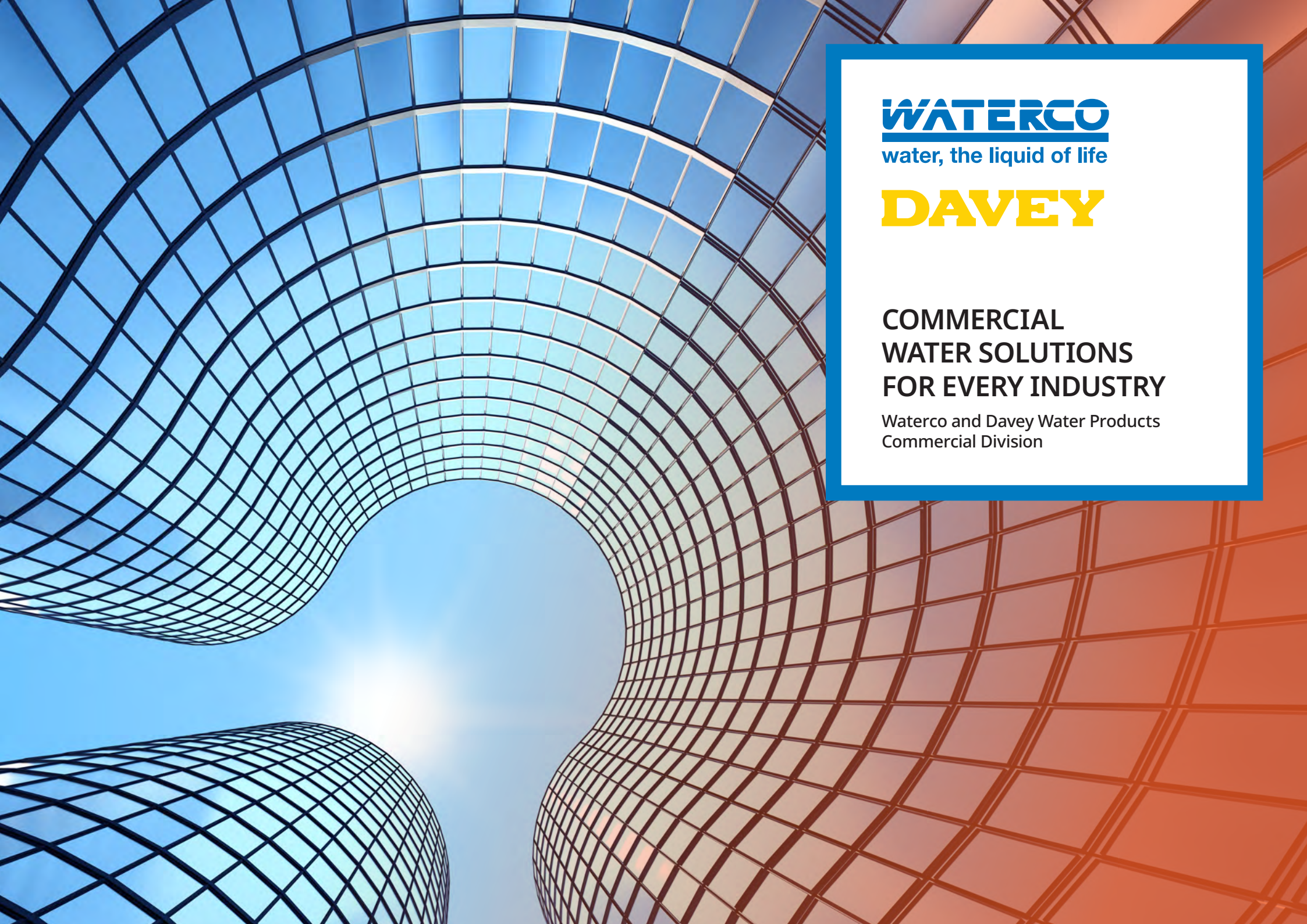


WATERCO

water, the liquid of life

DAVEY

COMMERCIAL WATER SOLUTIONS FOR EVERY INDUSTRY

Waterco and Davey Water Products
Commercial Division

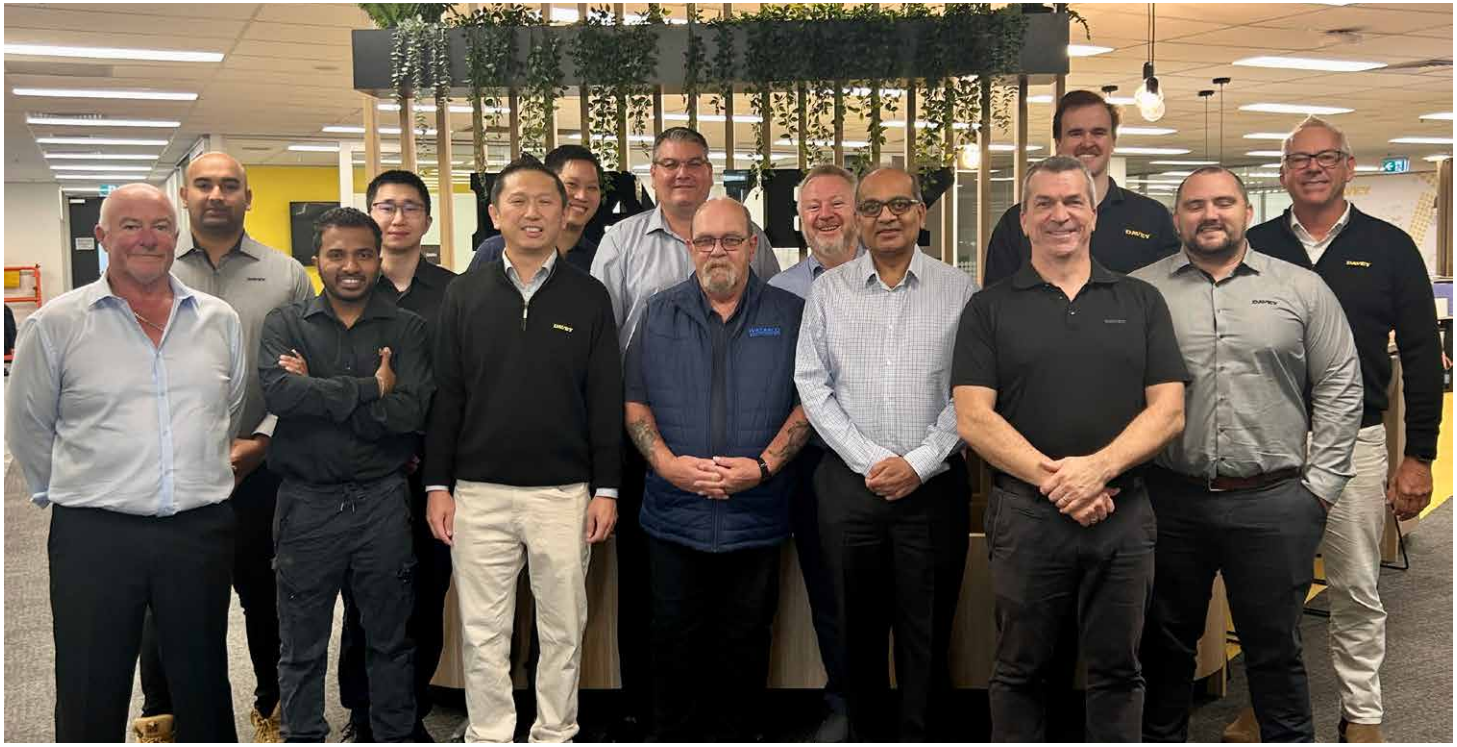
STRONGER TOGETHER IN COMMERCIAL WATER SOLUTIONS

Waterco and Davey have officially integrated the Commercial Division across Australia and New Zealand.

TOGETHER, WE BRING:

- Unmatched engineering depth across pressure boosting, water transfer, treatment, fire and filtration systems
- Expanded manufacturing capacity and product innovation driven by local and global experience
- Broader technical support and on-ground service via a strengthened dealer and partner network
- Greater capacity to service large-scale and complex projects across government, industrial, and commercial sectors

From concept to commissioning, our unified team delivers smarter, more efficient product solutions built on Australian manufacturing, backed by global strength, and trusted where water matters most.



Cameron Tolley - Davey, Shane Healy - Waterco, Lonny Ware - Waterco, Mark Gordon - Davey, Michael Romer - Waterco, Pat Taylor - Waterco, Bede Funnell - Waterco, Sacchin Mahajan - Davey, Brijesh Patel - Davey, Larry Wijesinghe - Davey, Jack Lee - Davey, Tom Piao - Davey, Andy Gale - Waterco

General Commercial Enquiries
commercial@daveywater.com | commercial@dwp.co.nz
AU Specialist Commercial Sales Team
commercial@daveywater.com
ANZ Specialist Commercial Filtration Team
commercial@waterco.com

WHY WATERCO AND DAVEY?

- **Custom Engineering and Design Support**
  Designed in-house by experienced specialists
- **Application-Specific Quotations, Estimation and Support**
  No overengineering, just what you need
- **Turn Key Commercial Solution Capability**
  End-to-End Commercial Solutions through Waterco–Davey Integrator Partnership
- **On Site Estimation**
  With combined coverage across Australia, New Zealand and Asia - our team is available for all on site estimations

INTEGRATED STRENGTH IN WATER TECHNOLOGY AND TREATMENT

Waterco and Davey are two of the most trusted names in commercial water products and solutions, and have become one of the most capable commercial supply partners in the industry. This integration unlocks unmatched strengths in engineered pumping, treatment, and filtration systems, supported by decades of experience and innovation.

We specialise in infrastructure that matters — from public facilities and municipal networks to high-rise buildings, agricultural operations, and resource-intensive industries. With in-house engineering, ISO-certified manufacturing and a strengthened national network of experts, we deliver dependable, tender-ready solutions tailored to real-world performance, regulatory compliance, and long-term operational success.

WATERCO
DAVEY

DESIGNED IN AUSTRALIA, BUILT FOR THE WORLD.

All Waterco and Davey Commercial Products are designed and engineered, ensuring:

- Strict quality control under ISO 9001 standards
- Compliance with regulatory frameworks
- Fast turnaround times and responsive after-sales support

With operations in New Zealand, Asia, North America, Europe, and the Middle East, our products reach commercial partners worldwide, backed by our local and global engineering standards and expertise, fit-for-purpose, everytime.

INTEGRATED STRENGTH. PROVEN PERFORMANCE.

Every product we build is engineered for real-world performance — from corrosion-resistant solutions for mining, large-scale commercial filtration, VSD pump sets for high-rise boosting and agricultural irrigation, to low-maintenance, UV-treated systems for public-use irrigation.

REAL SOLUTIONS. PROVEN IMPACT.

Together, we believe that every solution is more than a product, it's a powerful collaboration. From local councils to major commercial operators, we work alongside our partners to design and build products that perform and deliver long-term value.

Backed by deep engineering expertise, global reach, and a shared commitment to sustainability, our capabilities and case studies highlight how we connect water, people and purpose, in the real world, with real results.

Are you in need of:

- **Engineering and design support**
- **A quotation or estimation**
- **An on site assessment**

Our commercial sales engineers are here to help. Please contact commercial@waterco.com or commercial@daveywater.com

COMMERCIAL BUILDINGS & DEVELOPMENTS

We support developers, consultants and facility managers with smart water solutions for commercial, multi-residential and retail precincts. Davey's building services range is engineered for high reliability and ease of maintenance, now complemented by Waterco's proven filtration technology for improved water quality, system longevity and efficiency.

Capabilities:

- Multi-stage booster pump systems for potable cold water and recycled water supplies
- Sewerage, trade waste water and stormwater drainage sump pumps and controls
- Rainwater reuse pumpsets with filtration/disinfection and mains backup systems for above ground and below ground rainwater tanks

COMMERCIAL WATER TREATMENT

We offer end-to-end water treatment products designed to improve water quality, system efficiency, asset longevity, and regulatory compliance across commercial, industrial, and municipal applications

Capabilities:

- Filtration systems (media, cartridge, membrane, bag, disc)
- AS1210 pressure vessel construction standard available
- UV disinfection, chemical dosing systems, water softening and demineralisation
- Iron, tannin and sediment reduction products
- Water treatment for potable and process water
- Rainwater reuse filtration and treatment solutions
- Pre-treatment for heating, cooling and reverse osmosis systems

AQUATIC CENTRES & RECREATION FACILITIES

For local government pools and high bather load aquatic centres, we deliver robust water circulation and filtration products that promote hygiene, safety and operational efficiency.

Capabilities:

- Pump systems and filtration for indoor/ outdoor pools, splash pads and water play
- High-performance recirculation with corrosion-resistant materials
- Energy-efficient VSD and low-noise operation

GOVERNMENT & MUNICIPAL INFRASTRUCTURE

A strong track record supporting local councils, water authorities, and public infrastructure providers with high quality, pump and control systems.

Capabilities:

- Potable and non-potable water transfer and filtration
- Stormwater and floodwater sump pumps and controls
- Rainwater harvesting and reuse systems for public buildings
- Redundant backup and pressure-boosting sets
- Tender-compliant documentation, drawings and commissioning

WATERCO DAVEY

AGRICULTURE, IRRIGATION & AQUACULTURE

We work with primary producers, irrigation dealers and agribusiness to maximise crop yield and water efficiency, delivering dependable systems tailored to site-specific needs and climates.

Capabilities:

- Pivot and lateral irrigation systems
- End gun and boom-spray solutions
- Submersible bore and tank transfer pumps
- Water treatment and filtration for aquaculture operations

MINING, RESOURCES & CRITICAL INFRASTRUCTURE

We understand the demands of remote and harsh environments. We provide custom-engineered systems for mine sites, refineries and infrastructure requiring heavy duty, corrosion-resistant solutions.

Capabilities:

- Dewatering and high flow transfer in aggressive conditions
- Stainless steel and ISO split-case configurations
- Custom pump sets with diesel or electric drive options
- Explosion-proof motors and control panels (on request)

INDUSTRIAL & PROCESSING FACILITIES

Our industrial solutions are built for uptime, efficiency and chemical resilience. Our products and engineer systems are implemented for manufacturing, food & beverage, wineries and heavy industry sectors.

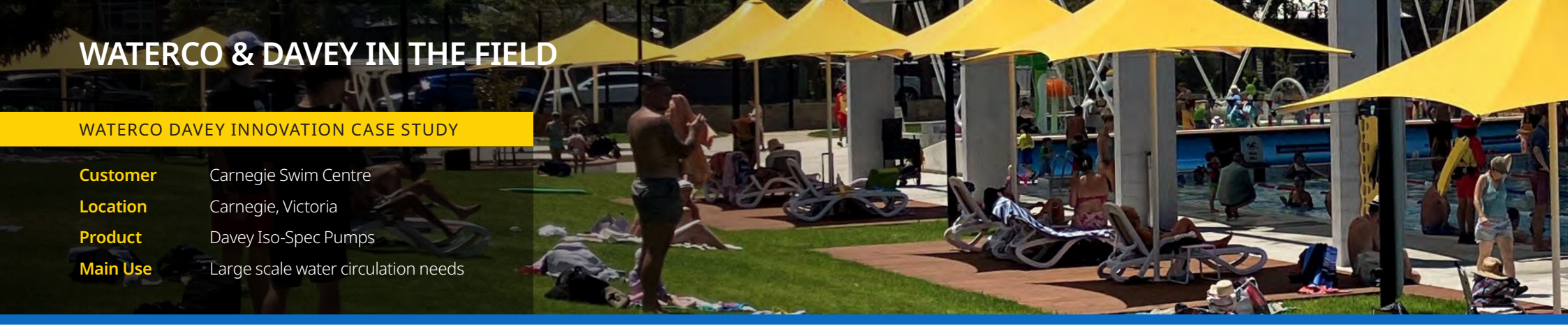
Capabilities:

- Process water circulation and temperature control
- High-capacity stainless steel and split-case pumps
- Corrosive media handling for CIP and wastewater streams
- Variable speed systems for energy and flow optimisation

STRONGER TOGETHER. SMARTER WITH WATER.

Explore how our globally backed, locally engineered systems are helping customers solve complex challenges - smarter, together.

WATERCO
DAVEY



WATERCO DAVEY INNOVATION CASE STUDY

Customer	Carnegie Swim Centre
Location	Carnegie, Victoria
Product	Davey Iso-Spec Pumps
Main Use	Large scale water circulation needs

COMMERCIAL CAPABILITY IN LOCAL COMMUNITY SWIMMING POOL REDEVELOPMENT PROJECT

As part of a recent community recreation and swimming pool redevelopment project, Davey Water Products showcased its expertise in delivering high-performance

The project, completed last year and reopened to the public in early January 2025, featured state-of-the-art systems designed to handle the demanding water circulation needs of large-scale, high bather load swimming pools. In addition, Davey's commercial-scale rainwater harvesting products were integrated to support the extensive landscaped gardens, ensuring sustainable water use. This redevelopment aligns with modern sustainability and operational efficiency goals, demonstrating Davey's commitment to innovative and environmentally responsible water solutions.

1. Irrigation System:

- The lush green grass surrounding the facility is irrigated using the Davey Commercial Rainbank Pro system with filtration and UV treatment.
- System Specifications:
  - Submersible pressure pump installed within a below-ground rainwater storage tank.
  - Capacity: 2.5 litres per second at 450 kPa.
  - Advanced Features: Automated mains water back-up, 3-stage filtration, and UV disinfection for optimal water quality.

2. Pool Pumping Solutions:

- The internal and external swimming pools, including water-play equipment, are powered by multiple Davey ISO-Spec pumps.
- These pumps are specially designed to withstand the challenging pool environment, ensuring reliability, energy efficiency, and long-term operational excellence.
- Features of Davey ISO-Spec pumps:
  - High durability for chlorinated water exposure.
  - Optimised for continuous operation in high-demand conditions.
  - Low noise and vibration levels for improved user experience.

3. Pool Filtration System:

- Pool water filtration is managed using Waterco filtration systems, complementing Davey's pumping solutions to maintain superior water clarity and hygiene.
- The filtration system effectively handles the heavy bather load, ensuring compliance with health and safety regulations while maintaining water balance.

OUR SOLUTION

- **Sustainability:** The Rainbank Pro system maximises the use of harvested rainwater, reducing reliance on mains water and contributing to environmental conservation.
- **Operational Efficiency:** The combination of Davey's pumping solutions and Waterco filtration ensures consistent water circulation, minimising downtime and maintenance costs.
- **User Satisfaction:** Community Swimming pool patrons enjoy crystal-clear water in both swimming and water-play areas, enhancing their experience and promoting return visits.
- **Seamless Collaboration:** The successful partnership between Davey Water Products, PCD Group Plumbing, and Pro Plumbing Supplies facilitated a smooth installation and commissioning process.

The integration of advanced pumping, filtration, and irrigation technologies underscores Waterco and Davey's commitment to sustainability, performance, and customer satisfaction.

WATERCO INNOVATION CASE STUDY

Customer	Surfside Pools Commercial
Location	Gold Coast, Australia
Product	Commercial Waterco Pool System
Main Use	High-quality swimming conditions

BILLION-DOLLAR RESORT RELIES ON WATERCO FOR HIGH-QUALITY SWIMMING CONDITIONS

Billion-dollar resort relies on Waterco for high-quality swimming conditions

Queensland's $1.4 billion Jewel development is a three-tower, multi-use complex located in one of the world's most desirable travel destinations: Surfers Paradise, Gold Coast.

Guests of the oceanfront resort are spoilt for choice when it comes to swimming with three resort-style pools located on various levels of the luxury complex: level one boasts a 350m2 outdoor lagoon pool and separate, 7m x 4m spa pool; level two houses a 180m2 indoor lap pool; while level three features a 170m2 outdoor lagoon pool.

Designed and constructed by Surfside Pools Commercial, each installation features a range of Waterco equipment to maintain high water quality year-round.

Level 1 – Lagoon Pool

2 x Waterco Micron SM1600 fibreglass filters with Glass Pearl media

3 x Waterco Hydrostar MK3 550 pool filtration pumps

1 x Waterco Hydrostorm ECO-V 150 variable speed pump

Jewel Level 1 - Spa Pool

1 x Waterco Hydrostorm Plus 250 pump

1 x Waterco Hydrostar MK3 550 pump

Level 2 - Lap Pool

2 x Waterco Micron SM1400 fibreglass filters with Glass Pearl media

3 x Waterco Hydrostar MK3 550 pool filtration pumps

Jewel Level 3 - Lagoon Pool

2 x Waterco Micron SM1200 fibreglass filters with Glass Pearl media

1 x Waterco Hydrostorm Plus 250 pump

Waterco's high-performance, commercial filtration equipment are purposebuilt to clean and purify large quantities of water, high swimmer turnover and above-average amounts of environmental particles entering the water.

THE WATERCO SOLUTION

For example, Hydrostorm Plus and Hydrostar pumps provide the extra power needed for ancillary systems like water features, in-floor cleaning systems and spa jets commonly found in hotel pools.

The pump body is manufactured from specially engineered plastic moulding with a single piece strainer pot and volute for extra strength.

The pumps' unique construction offers several advantages in comparison to steel pumps. Glass reinforced thermoplastic possesses superior mechanical and chemical resistance compared to steel.

The Hydrostar MKIII's internal volute hydraulic design provides a natural balanced water flow and reduces hydraulic turbulence, resulting in substantially quieter operation.

Surfside Pool's technical engineering expertise has been recognised on numerous projects, including The Jewel development which received the prestigious SPASA Queensland Gold Award for Commercial Projects.

"Working closely with our clients to construct unique and challenging designs is our speciality" says Surfside Pools Commercial Construction & Operations Manager, Bryan Moore. "On a regular basis, we achieve what was once considered impossible and have constructed some of the largest and most prestigious award-winning pools, spas, and water features in Australia. Whether that is constructing a pool that stands majestically 73 levels above ground, on a water table, or out over a steep cliff, our aim is to always deliver to a high standard and to exceed our client's expectations."

"It's how we have maintained relationships with long-standing clients over the years," he continues, "and how we've consistently earned industry recognition. The equipment we install must also meet the high standards our clients expect from us. Waterco exceeds those expectations every time, which is why it was the preferred choice for this landmark project."

Setting new global benchmarks in durability, versatility, reliability and longevity, Waterco's Micron Commercial fibreglass filters are the preferred choice for commercial projects

DAVEY INNOVATION CASE STUDY

Customer	Charles Sturt University
Location	Wagga Wagga, New South Wales
Davey Product	Davey VM200 Pumps
Main Use	Reliable water supply for the campus and surrounding areas

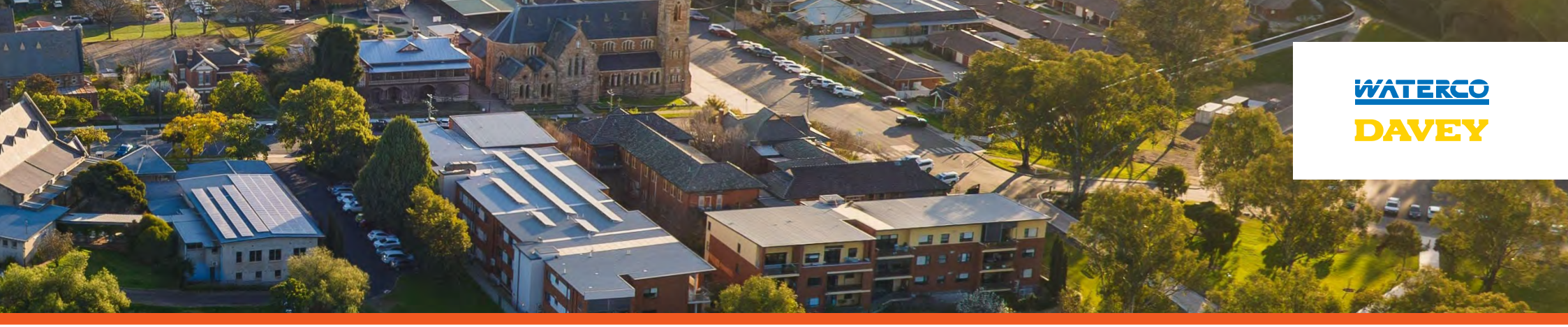
A MILESTONE ACHIEVEMENT IN COLLABORATION AND PRECISION ENGINEERING

In a landmark project for the Davey Commercial team, the largest pump set ever built in the history of Davey has been successfully completed and commissioned. This system, consisting of 3x Davey VM200 pumps, custom-fabricated 316 stainless steel manifolds and valves, and a heavy-duty steel base, represents a milestone in scale, precision, and execution for Davey.

The pump set has been installed at Charles Sturt University (CSU) in Wagga Wagga, NSW, where it will provide reliable water supply for the campus and surrounding areas—helping the region accommodate growing demand due to rapid population growth.

Wagga Wagga has experienced significant population growth, placing increasing pressure on local water infrastructure. Charles Sturt University sought a solution that would:

- Meet stringent technical specifications as defined by the project's hydraulic consulting engineer.
- Provide scalability to ensure reliable performance as the population and water demand grew.
- Adhere to strict project timelines, which had previously been considered unachievable by other providers.



THE DAVEY SOLUTION

The Davey team developed and commissioned a custom pump set that met the exacting requirements of the detailed drawings and specifications provided for the project. The system includes:

- 3x Davey VM200 Vertical Multistage Pumps, offering high capacity and reliable performance.
- Custom-Fabricated 316 Stainless Steel Manifolds and Valves, ensuring durability and corrosion resistance in a high-demand application.
- Heavy-Duty Steel Base, providing stability and robust support for the system.
- **Built to Specification:** Every component was fabricated and assembled in accordance with the detailed design requirements specified by the hydraulic consulting engineer.

The system was completed on time and delivered by Davey to meet the project's critical and demanding timelines, a feat that had been deemed unattainable by other providers.

The successful delivery of the largest-ever Davey pump set marks a defining moment in the company's history. It showcases Davey's ability to meet highly technical and time-sensitive project requirements while working closely with consulting engineers and clients to deliver a solution that supports growing regional infrastructure.

WATERCO INNOVATION CASE STUDY

Customer	Pioneer - Christchurch City Council
Location	Christchurch, New Zealand
Product	Commercial Waterco Pool System
Main Use	High-quality swimming conditions

SMALL-FOOTPRINT COMMERCIAL POOL FILTER PROVIDES ABSOLUTE 3-MICRON FILTRATION

With public swimming pools considered a core council business and valuable community asset, facilities like Pioneer Recreation and Sport Centre in New Zealand are relying on new technologies to cut operational costs while helping people stay fit and water safe.

Pioneer — one of five indoor pools operated by Christchurch City Council — upgraded its commercial pool filtration equipment with a system that not only provides ultra-fine filtration but also reduces expenses associated with backwash, electricity, chemicals, and maintenance.

"When media filtration is not an option due to spacial limitations, or where ultra-fine filtration is absolutely required, LiqTech Water offers innovative stand-alone or complete turnkey commercial pool filters based on high-quality silicon carbide (SiC) ceramic filters providing high efficiency and reduced life cycle costs," says Waterco Commercial and Water Treatment Specialist, Andy Gale.

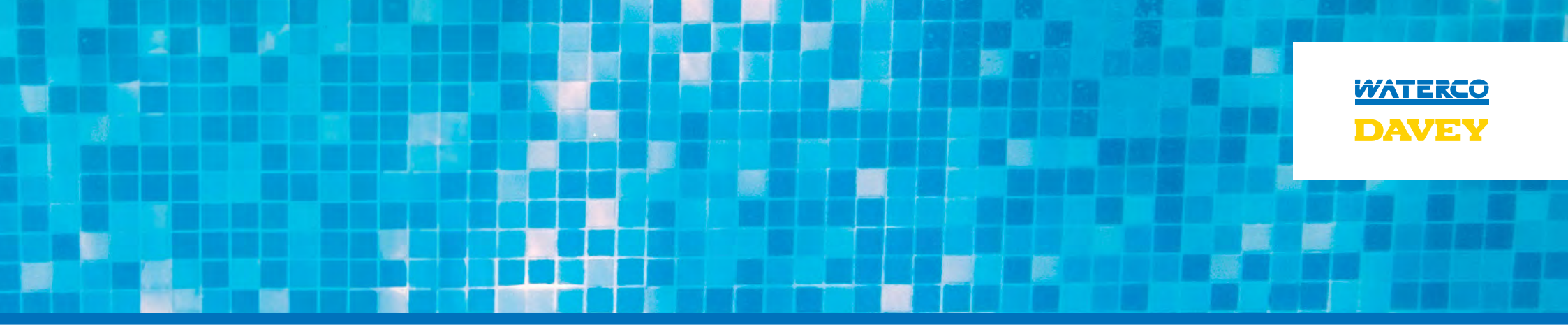
"LiqTech's modern ceramic filter technology also provides absolute 3-micron filtration, which meets today's enduser demands as well as providing current and future compliance of environmental regulations. In comparison to other UFF systems, the ceramic membrane filtration is absolute – there are no doubts about what may pass through, and they are far easier to operate"

"Ceramic membranes deliver a much more thorough filtration process that removes bacteria, pathogens and viruses," he explains. "This ultimately delivers cleaner water and a safer pool and spa environment. They're also made of some of the hardest materials in the world, resulting in an extremely durable and long-lasting product.

Upgraded with the latest software and valves for increased reliability, LiqTech Water offers a compact commercial swimming pool filtration system with the smallest footprint on the market — taking up to 65 per cent less valuable real estate in plantrooms.

As Gale explains, LiqTech's commercial pool filters are highly flexible.

"The 'ambidextrous' design allows all process connections to be installed from either side," he explains. "Moreover, it is a modular system to which additional housings can be added after installation."



THE WATERCO SOLUTION

The significantly reduced skid footprint with up to 75m3/hour per 1.5m2 filtration capacity fits through a standard doorway and can be made even smaller if required.

LiqTech's SiC membrane technology has a dead-end design, which ensures no contaminated water passes through the filter. The pore size of the membrane walls allow water to pass through while retaining impurities. Dirty water in, clean water out. It's that simple.

"All this makes it perfect for both new-build and retrofit installation with significant savings on space and onsite installation costs," he says. "For Pioneer, installing LiqTech eradicated the need to rebuild an entirely new plantroom due to existing space restrictions."

Powell Fenwick Technical Director Nick Yannakis says specifying LiqTech made sense for several reasons."This system produces very high-water quality without ongoing, labour-intensive maintenance," he explains. "LiqTech's ceramic membrane filter technology also eliminates health and safety concerns that come when handling hazardous materials associated with other forms of filter media. And while there may be a high capital cost, this is soon offset by low operational costs."

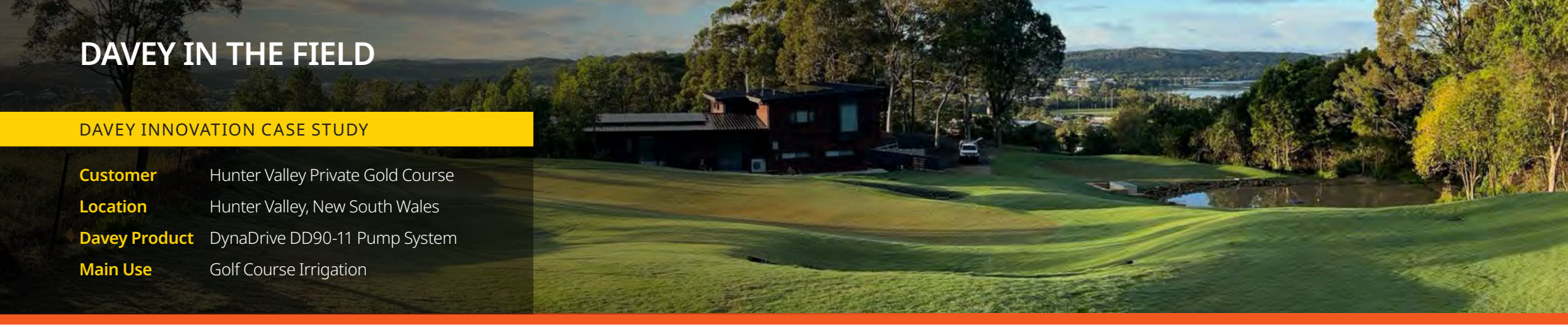
Rob Hough, Mechanical Estimator for Hanlon Plumbing & Pipe Services agrees with Yannakis' description of LiqTech's low fuss design.

"For example, unlike sand filtration, LiqTech is an all-inone, complete turnkey system, which makes it simple to install and service," he says. "The space saving design uses substantially less footprint, which is ideal when you have narrow access like we did or a plantroom with minimal room."

A water smart, cost-effective solution Not only is the LiqTech pool filtration system easy to clean, but it also uses less water for cleaning. In fact, water consumption for backwash can be reduced by 70 per cent.

"All things considered, LiqTech's commercial pool filtration system requires minimum effort to operate and maintain due to automated processes," Gale explains. "The continuous real-time data accuracy and lowered water consumption ensure a precise and cost-effective solution."

The upgraded commercial pool filtration equipment not only provides ultra-fine filtration for a safer pool and spa environment, but also reduces expenses associated with backwash, electricity, chemicals, and maintenance.



DAVEY INNOVATION CASE STUDY

Customer	Hunter Valley Private Gold Course
Location	Hunter Valley, New South Wales
Davey Product	DynaDrive DD90-11 Pump System
Main Use	Golf Course Irrigation

DUAL PUMP SOLUTION KEEPS PRIVATE GOLF COURSE GREEN IN HUNTER VALLEY

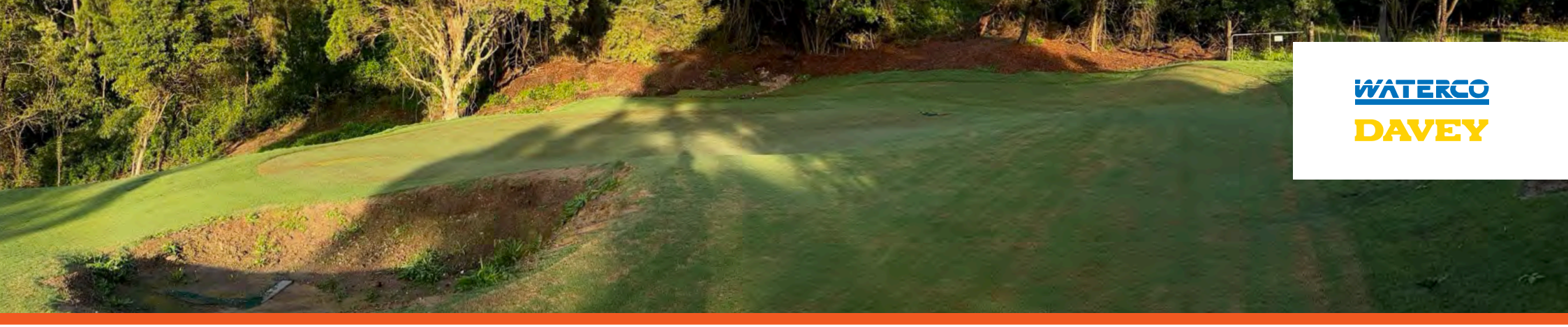
In the picturesque Hunter Valley region of New South Wales, a private property owner faced the challenge of maintaining a lush, green 3-hole golf course. The task required a reliable and efficient irrigation system that could handle the demands of turf maintenance in Australia's variable climate.

The property owner needed a robust irrigation system to keep their private golf course in top condition. The main requirements were:

- Efficient water distribution across the turf.
- Reliability to ensure consistent irrigation.
- Ease of use for the property owner.
- Ability to perform in the specific conditions of the Hunter Valley region.

Complete Pumps & Irrigation chose to partner with Davey for several reasons:

- **Quality Products:** As a family-owned business, they value the high-quality solutions that Davey provides.
- **Australian Partnership:** Supporting an Australian company aligns with their business values.
- **Reliability:** With over 30 years in the irrigation business, Rob Grisigner trusts Davey products to deliver consistent performance.



THE DAVEY SOLUTION

Rob & Kelly Grisinger owners of Complete Pumps & Irrigation, recommended a Dual DD90-11 Pump System from Davey. This solution was chosen for several key reasons:

- **Redundancy:** The twin pump setup provides a backup in case one pump fails, ensuring continuous operation.
- **Variable Speed Drive (VSD):** This feature allows for efficient operation and easy adjustment to changing water needs.
- **Ease of Use:** The system is designed to be user-friendly, requiring minimal manual intervention.
- **"Insurance Factor":** With two pumps, the system offers peace of mind to the property owner.

The Davey Dual DD90-11 Pump System was installed by Complete Pumps & Irrigation's experienced team, including Rob' & Kelly's two sons who work as installation and service technicians. Their expertise ensured a smooth setup and optimal performance of the system.

The implementation of the Davey pump system has led to several positive outcomes:

1. **Consistent Irrigation:** The golf course now receives reliable and efficient watering, maintaining its lush green appearance.
2. **Customer Satisfaction:** The property owner is reported to be a "Happy Customer," pleased with the performance of the system.
3. **Peace of Mind:** The redundancy built into the system provides assurance that irrigation will continue even if one pump requires maintenance.
4. **Ease of Operation:** The user-friendly nature of the system means the property owner can manage irrigation without complications.

The Dual DD90-11 Pump System has proven to be an ideal solution for maintaining a private golf course, offering reliability, efficiency, and peace of mind to the property owner in the Hunter Valley region.

WATERCO INNOVATION CASE STUDY

Customer	Aribas Sintra
Location	Sintra, Portugal
Product	Commercial Waterco Pool System
Main Use	Commercial Swimming Pool

ENSURING WATER CLARITY IN ONE OF THE WORLD'S LARGEST OCEAN POOLS

Overlooking the Atlantic Ocean is one of the world's largest saltwater pools that relies on Waterco technology to maintain crystal clear swimming conditions.

Situated on Praia Grande in the Portuguese Riviera, the Arribas Sintra Hotel features an impressive 100-meter length saltwater pool filled directly from the sea. Built in 1966, it has since become an iconic landmark and was even used as a location for U2's 2004 DVD version of their hit single 'Vertigo'.

The pool consists of two areas: one for children, with a depth up to 0.65 meters and the other for adults, with a depth between 0.80 meters and 3.95 meters. While the spectacular location provides swimmers with panoramic views of the Atlantic Ocean, the corrosive coastal environment does compromise equipment. Despite carrying out a regular maintenance programme on the mild steel filters, continued contact with seawater caused the pool's filters, pumps and metallic components to rust. Consequently, maintaining consistent water clarity and quality for guests had become virtually impossible.

"The entire system was inefficient due to being full of rust," explains CIMAI's Technical Supervisor Mario Alves. "This led to the whole technical area needing urgent intervention."

Considered Portugal's leading chemical product developer and producer, CIMAI looked for alternative equipment to achieve the following results:

- Resolve current issues with water quality
- Improve the recirculation of pool water
- Increase circulation efficiency and flow rate
- Solve existing technical issues

"We did consider a range ofbrands but found the thickness of the filter walls were inferior and all had metal parts in contact with water, which meant within time the issue of corrosion would repeat itself," says Mario.

THE WATERCO SOLUTION

To avoid future corrosion and costly downtime, CIMAI chose Waterco's reinforced fibreglass filters and injection moulded thermoplastic pumps to replace the antiquated equipment — all of which are free of metal parts and therefore ideal for use in saltwater installations.

Consequently, the swimming pool underwent a complete refurbishment in 2019, which involved replacing the original steel filters with five side mounted SMDD2350 fibreglass wound filters designed and engineered by Waterco.

"Manufactured from the highest grade of non-corrosive materials and utilising the latest in fibreglass winding technology, Micron fibreglass filters are designed and built for many years of trouble-free operation," explains Waterco Europe Sales Director Jo Ainsworth.

Waterco's digitally controlled machine winds continuous strands of high-quality fibreglass filament under controlled tension to create a seamless one-piece vessel with refined consistency and superior quality. There are no welds or seams or special tank linings which can corrode or electrolyse.

"For this installation, we upgraded the vessels with Titanium hardware that is resistant to the aggressive sea water environment," says Jo.

"Waterco's Hydrostar Plus 7.5kW pumps upgraded with silicone carbide seals suitable for sea water were also installed."

Waterco manufactures reliable, robust water filters and pumps that are easy to maintain," adds Mario. "Crystal clear water quality, reduced electricity bills and no corrosion — these are just some of the benefits of installing Waterco's Micron Fiberglass Filters and Hydrostar Plus Pumps."

"To avoid future corrosion and costly downtime, CIMAI chose Waterco's reinforced fibreglass filters and injection moulded thermoplastic pumps"

DAVEY INNOVATION CASE STUDY

Customer	Flow Smart
Location	Griffith, NSW & Stratford, Victoria
Davey Product	Vertical CS Pump for pivots
Main Use	Centre Pivot and Lateral Move

END GUNS BACK IN FAVOUR AFTER DAVEY CUSTOMISED SOLUTION FOR PIVOT IRRIGATION

When Bryce Yates, Managing Director, Irrigation Company Flow Smart wanted to find better ways to water the areas that pivot irrigators can't reach, he turned to Davey Water Products and their Commercial Solutions team.

The Flow Smart Group design and install customised spray irrigation systems for agricultural and horticultural clients throughout Southern NSW and Victoria.

Bryce and his team recommend many of their customers use end guns: large sprinklers on the end of a machine designed to irrigate field areas beyond the reach of a pivot irrigator. But while they are great in theory, Bryce found many end guns could not deliver the additional water pressure required effectively and efficiently due to poorly specced motors and pumps.

"A few years ago we started working with other brands to try to resolve our end gun issues with the motor and pump. We got the results we were looking for with properly specced 50Hz pumps and motors, but we were still seeing a large failure rate with the motors. The standard motors on these pumps were not up to the standard we required.," Bryce says.

"So we contacted a few pump companies, and Davey Water Products were the most proactive to engage with us and work together on a custom-built solution to meet ours and our customers' needs."

THE DAVEY SOLUTION

The Davey Commercial Solutions team develop and market specialised water product and solutions for businesses, farms, fire and flood protection, homes, pool and spa applications, communities and more. They worked with Flow Smart to find an integrated motor and pump solution for the end gun.

"In Gippsland and regions around Ballarat, the cost of land is quite high here, so landowners want to keep it watered to optimise their investment. Most of the end guns are being used on pasture or horticulture where producers are trying to maximise every bit of their land for the cows to graze or crops. They might have an obstacle or hit a boundary, so they can't make the pivot any bigger, but we can water significant additional area with an effective end gun."

"End guns generally add 5-10% to the irrigated area on top of the pivot, depending on the site, so they're a really important part of an irrigation plan – if they work properly," Bryce says.

Working collaboratively, our Davey Territory Manager, the Davey Commercial team and Flow Smart came up with a solution based on a specially built IP66 rated motor, which comes with a rain cap and offshore water guard protection, paired with a Stainless Steel Davey CS industrial pump.

"The IP rating for the motor is crucial because of its exposure to water and coastal climates. We need to ensure that it's sealed correctly so no damage occurs," Bryce says.

One of the key things Flow Smart noticed was the quality and reliability of the Davey pumps. They've seen 100% improvement rate of pump failures since the integration of the Davey pump.

"Before we went through this process of customising our end guns, we had a lot of clients that were done with them. They were sick of the poor performance, maintenance and how unreliable they were. Now we're seeing an uplift of our customers using end guns. We are also seeing significant improvement on the effective area from the guns, with reduced power input and a huge increase in reliability. This has definitely resulted in higher customer satisfaction," Bryce says.

Davey products are assembled in Melbourne and go through stringent testing. When you install a Davey, you have the support of an Australian brand – with local training and expertise.

WATERCO INNOVATION CASE STUDY

Customer	North East Water (NEW)
Location	Victoria, Australia
Product	Fibreglass vessels TBC
Main Use	Reducing storm-induced turbidity in town water

WATERCO HELPS DROUGHT-PROOF $2M GROUND WATER TREATMENT PLANT

Supplying clean and reliable drinking water to the community

North East Water (NEW) operates 21water treatment plants across northeast Victoria, supplying drinking water to over 100,000 people in an area of approximately 20,000 square kilometres. This region extends from Corryong in the east, along the Murray River to Yarrawonga, then south to Benalla and the alpine towns of Bright, Mt. Beauty and Dartmouth. NEW's water treatment processes are determined by a range of factors including:

- The type of catchment
- The chemistry and microbial quality of the water
- Mandatory requirements, such as disinfection and fluoridation

The challenge was to reduce storm-induced turbidity in town water. The town of Wangaratta is located at the junction of the Ovens and King rivers, creating a catchment for the north-western slopes of the Victorian Alps. Heavy rainfall often causes flooding, which in turn increases the number of suspended solids and colloids in the water.

As NEW's existing plant was unable to extract sufficient dirt from the water, water management specialists and project engineers at Filtec turned to Waterco's world-renowned filtration solutions.

To deliver high-quality filtered drinking water free from unwanted taste and odours, Filtec installed Waterco's MPD10,000 Commercial Fibreglass Nozzle Plate Media Filter ($10m^2$ filter area and 1200mm bed depth) – the largest to receive AS/ NZS 4020:2005 Certification from the Australian Water Quality Centre. Recognised in many regions around the world, the stringent Australian standard and testing process ensures every component that comes in contact with drinking water does not affect the taste or appearance of water, support the growth of microorganisms, or release cytotoxic or mutagenic compounds or metals.

"The process to achieve certification was lengthy, intensive and rigorous, and it included three months of testing in the only lab in Australia that specialises in testing for this standard," says Waterco's Andy Gale.

THE WATERCO SOLUTION

Waterco's fibreglass Nozzle plate vessels provide NEW with a number of advantages compared with their steel counterparts, including:

Durability: Fibreglass vessels have a mechanical and chemical resistance superior to steel, plus fibreglass does not rust or corrode and is able to withstand damage from many types of water treatment chemicals. Additionally,they do not leave any unsightly stains

Effectiveness and efficiency: Nozzle plate filters are fitted with a plate and nozzle system, which ensures uniform flow for both filtering and backwashing. This provides maximum performance through the media bed

Lightweight: Fibreglass tanks weigh only one third that of steel vessels, whilst maintaining the same level of strength. This makes them easy to transport and install.

Easy to maintain: Once installed they are virtually free of maintenance or repairs. This compares with steel vessels, which require the anticorrosive coating to be maintained periodically, with certified welders required to make repairs to the lining with epoxy coating

"Certification for a water filtration vessel of this size reinforces Waterco as a manufacturer of superior water filtration solutions that are ideal for a wide range of commercial applications including large public swimming pools, aquatic parks, cooling towers, drinking water systems, desalination plants, industrial processes, zoos, and aquariums," says Andy.

"That companies such as FILTEC turn to Waterco's large nozzle plate filters for these solutions is a testament to their durability, effectiveness and efficiency."

Providing community access to a secure and reliable water supply. North East Water executive operations John Day says, "the new plant will increase Wangaratta's access to a secure and reliable water supply".

"Not only can we use it during dirty river events, it allows us to take the main plant off-line at any time to conduct critical infrastructure work," he explains. "During any future droughts, the new plant will also significantly increase our water resilience and will reduce the frequency of harsh waterrestrictions."

"Providing community access to a secure and reliable water supply" says John Day, North East Water executive operations

DAVEY INNOVATION CASE STUDY

Customer	Commercial Winery
Location	Mudgee Wine Region, NSW
Davey Product	Davey 1MLV32-3H3-60 Pump Sets
Main Use	Winery Processing Plant Cooling Tanks

RELIABLE COOLING SYSTEM SOLUTION FOR PREMIUM WINE PRODUCER

In the heart of the Mudgee Wine Region, a local winery faced the challenge of maintaining optimal temperature control in their processing plant's cooling tanks. The facility required a robust pumping solution that could handle the region's demanding climate conditions, with ambient temperatures reaching up to 45°C during summer peaks.

The winery's cooling system played a crucial role in maintaining wine quality, but their existing competitor pump sets were no longer meeting operational requirements. The brine pumping system needed to perform reliably in extreme ambient temperatures of up to 45°C during summer months, while simultaneously managing variable flow requirements. Additionally, the facility needed a solution that would optimise energy efficiency to control long-term operational costs, making the replacement of their existing pumping system a critical priority.

THE DAVEY SOLUTION

Dean from local Davey Master Dealer, The Mudgee Pump Company recommended the installation of two Davey 1MLV32-3H3-60 pump sets with variable speed drive technology, configured to deliver 6 litres per second. This comprehensive solution was designed to ensure reliable performance in high temperatures while maximising energy efficiency and operational flexibility through its advanced VSD capabilities.

The implementation of Davey's pumping solution has delivered outstanding results for the winery's cooling system operations. The new system has consistently demonstrated exceptional reliability, even during the challenging summer months when ambient temperatures reach their peak. The VSD technology has proven particularly effective in managing variable flow requirements while maintaining optimal energy efficiency. The client has expressed high satisfaction with both the system performance and the professional support received throughout the installation process, noting:

- Consistent and reliable cooling system performance across all temperature ranges.
- Significant improvement in energy efficiency through VSD operation.
- Reduced maintenance requirements compared to previous installation.
- Successful adaptation to varying cooling demands during peak periods.

The installation of Davey's MLV series pumps with VSD technology proved to be an ideal solution for this winery's cooling system requirements. The combination of reliable hardware and intelligent control systems not only met the immediate needs but also provided a foundation for long term operational efficiency.

WATERCO INNOVATION CASE STUDY

Customer	Water Treatment Company
Location	Basrah, Iraq
Product	Commercial Water Desalination Plant
Main Use	Improving Water Quality

WATERCO'S MICRON SMD2000 FILTERS WERE CHOSEN FOR THE WATER DESALINISATION PLANT

Water Desalinisation Plant, Faw region in Basrah, Iraq

After many months of negotiation and working closely with a leading water treatment company, Waterco were delighted to be chosen as the preferred vendor for the supply of our Multi Media.

Filters SMD2000 in their turnkey RO system. Such system (totaling 40 x Micron SMD2000 tanks) was installed on a Water Desalination Plant in Basrah, Iraq. A spoke-person for the company reported that they were very impressed with the quality and the results of the Multi Media Filters.

"Such installations attract a lot of interest from many manufacturers from around the world and it's a great testament to the quality and design of the Waterco range of commercial filters" .

A total of 4 plants were constructed, each plant consisting of 10 x Micron SMD2000 Multi Media Bobbin Wound Filters. Each plant has an output of 100m^3/hr and the pre-filtration is about 250-275 m^3/hr (system recovery is 35-40%). Combined pre-filtration for the 4 plants is approximately 1000 - 1100 m^3/hr.

Being installed on water treatment plants meant that the filters had to be designed and manufactured to much higher pressure ratings due to the fact that in the water treatment sector the minimum pressure rating requirements are 4 bar, and in fact mostly 6 bar. Waterco currently are able to offer commercial filters from 2.5 bar – 10 bar pressure ratings in order to cater for the majority of installations.

THE WATERCO SOLUTION

The success of this project underscores the strategic importance of Waterco's robust engineering capabilities and deep understanding of global water treatment demands.

The challenging environmental conditions in Basrah, Iraq – including high temperatures, corrosive coastal air, and a need for consistently high water quality – demanded a resilient and high-performance filtration solution. Waterco's Micron SMD2000 Multi Media Filters proved to be the ideal fit, offering a combination of strength, efficiency, and low maintenance that appealed strongly to both the client and the project engineers.

One of the key reasons behind the client's decision was the exceptional durability of the bobbin-wound design of the SMD2000 filters. This construction method ensures a uniform wall thickness and high mechanical strength, making the filters particularly suited to high-pressure applications. Furthermore, Waterco's extensive experience in manufacturing and supplying filters for similar high-demand projects gave the client confidence that the equipment would perform reliably over the long term, with minimal operational downtime.

This collaborative approach streamlined the integration of the filters into the larger RO system but also allowed for optimisation of flow rates and recovery ratios across the four plants. By working closely with the installation team, Waterco helped ensure that commissioning went smoothly and that the system delivered on its performance promises from day one.

The success of this installation has opened the door to further opportunities in the region, reinforcing Waterco's position as a trusted partner in advanced water treatment infrastructure. With water scarcity continuing to be a critical issue across the Middle East, Waterco is proud to contribute reliable and scalable solutions that support long-term sustainability and access to clean water.

Each plant consisted of 10 x Micron SMD2000 Filters. Combined prefiltration for the 4 plants is approximately 1000 - 1100 m^3/hr.

DAVEY INNOVATION CASE STUDY

Customer	Hillgrove Mine
Location	Kanmantoo, South Australia
Davey Product	Davey Custom Stainless Steel End Suction Pump ISO2858 (132kW)
Main Use	Mining process water management

DAVEY'S CUSTOM STAINLESS STEEL END SUCTION PUMPS TACKLE AGGRESSIVE MINING PROCESS WATER

Hillgrove Resource Copper Mine in Kamantoo, South Australia, required a robust pumping solution for their process water system. The key challenges included:

- Highly aggressive water quality with varying pH values.
- High turbidity and hardness in the process water.
- Need for a durable solution to minimize downtime.
- Requirement for high-capacity pumps to handle the mining operation's needs.

THE DAVEY SOLUTION

Irrigation Pumps N More in Totness, South Australia, a Davey Master Dealer located within 30 minutes of the mining site, recommended and supplied a custom-engineered solution:

1. **Complete Stainless Steel End Suction Pump:** Designed to withstand the corrosive nature of the mining process water.
2. **132kW Customised Project:** Tailored to meet the specific flow and pressure requirements of the mine.

Key features of the Davey solution include:

- **Corrosion Resistance:** Full stainless-steel construction to combat the low pH and high mineral content of the water.
- **High Performance:** Split case design for efficient, high-capacity pumping.
- **Customisation:** Engineered specifically for the unique challenges of Hillgrove Mine's process water.
- **Durability:** Built to withstand the harsh conditions of a mining environment, reducing downtime.

Davey Water Products was chosen for this project due to their ability to provide a custom, corrosion-resistant solution that could withstand the challenging conditions of mining process water. Key factors included:

- **Materials Expertise:** Ability to design and manufacture complete stainless steel pumps.
- **Custom Engineering:** Tailoring the solution to the specific needs and conditions of Hillgrove Mine.
- **Industrial-Grade Performance:** Providing high-capacity pumps suitable for demanding mining operations.
- **Reliability:** Designing a solution focused on minimising downtime in a critical industrial application.

This case study showcases Davey's expertise in engineering corrosion-resistant, high-performance pumping solutions for challenging industrial applications, demonstrating their ability to meet the unique needs of the mining sector.

WATERCO INNOVATION CASE STUDY

Customer	Auto-Tub
Location	Queensland, Australia
Product	Waterco's MultiCyclone pre-filtration solution
Main Use	Environmentally-friendly commercial vehicle wash system

WATERCO'S MULTICYCLONE WORKS IT MAGIC

Protecting equipment and the environment at Auto-Tub

Originally imported from the United States under the name Kwik-Kleen Car Wash System, the Auto-Tub (QLD) vehicle wash system is manufactured in Brisbane, Queensland, and sold throughout the world with over 2000 units in operation.

Owned by Ron Dodds, a metal specialist with over 30 years' experience in the water treatment industry, and his wife Wendy, Auto-Tub is known for producing reliable, environmentally friendly water recycling vehicle washing solutions.

As well as being eco-friendly, Auto-Tub's water reclaim innovations – which are capable of recycling up to 95 per cent of all water used – significantly reduce labour costs for the motor dealers, mine operators and fleet owners who depend on the system.

The challenge was to reduce high silt and dirt load prior to filtration. In addition to building and installing each Auto-Tub system in Australia, Ron also services them regularly. This allows him to gather valuable data on how they operate and where they can be improved.

"In our system's submersible sub-tank, where the raw water comes out, we found we still had a high silt and debris load," he explains. "This was despite going through a 300-micron bag, and then through a 100-micron bag filter, before passing through our exclusively designed, specially engineered multi-layered media used in our main filters."

A key requirement was a solution that eased the pressure on the filter cylinders with a pre-filtration system - and Ron also needed a product that reduced the amount of backwash water.

"The days are long gone where we're able to pour tens of thousands of litres of water down the drain to wash vehicles," he says. "During the drought period we had 10-15 years ago, I knew we needed a system that enabled our business to still operate during periods of low rainfall while allowing customers to continue washing their vehicles – all while abiding by the parameters set out by local councils and the relevant water authorities."

THE WATERCO SOLUTION

To help reduce the volume of suspended solids in the recycle water loop – thus reducing the load off the secondary filtration polishers – and conserve water, Ron trialled Waterco's award-winning MultiCyclone pre-filtration device. Generating a strong centrifugal effect, it spins sediment out to the hydrocyclone's wall and then spirals it down to the sediment sump, while clean water spirals upwards.

"We've discovered that the MultiCyclone is taking a massive load off the filters themselves – we're extracting an extra 80 per cent more dirt and debris before it gets to the main filters," Ron explains. "On 16-20-inch cylinders, it's probably saving us 3,000-litres a week in backwash water. I am very, very pleased with the product."

By pre-filtering the majority of the filter's incoming dirt load, MultiCyclone reduces the load on the filter, thus reducing the frequency of filter maintenance by up to 80 per cent – all while significantly saving backwash water. And as the MultiCyclone intercepts more and more sediment, the flow rate remains unchanged, improving water circulation.

With water restrictions a regular occurrence in many parts of Australia, Waterco's MultiCyclone system enables Auto-Tub to provide its customers with tangible cost benefits – without compromising quality.

"In times of tough water restrictions or scarce resources, our customers achieve high productivity with an excellent corporate responsibility by utilising our water reclaim systems to reduce their fresh water consumption," explains Ron.

"Also, a lot of the cyclones have a very narrow band of operation, however MultiCyclone works from 50-500-litres without any change in quality. It's a very impressive system."

"MultiCyclone is saving us around 3,000-litres a week in backwash water. I am very, very pleased with the product." Ron Dodds, owner Auto-Tub (QLD)

DAVEY INNOVATION CASE STUDY

Customer	Victorian Property Owner
Location	Sebastopol, Ballarat, Victoria
Davey Product	Davey 5190HRS2 Firefighter
Main Use	Fire protection system providing comprehensive property defence through remote operation

FIRE PROTECTION MADE SIMPLE: ULTIMATE PUMPS & IRRIGATION'S SMART SOLUTIONS

In this innovative installation, Ultimate Pumps & Irrigation (UPI) demonstrates how modern technology and thoughtful design can create a robust defense against fire threats. By combining Davey's reliable pump technology with smart controls and strategic water management, UPI has delivered a fire protection system that offers both comprehensive coverage and peace of mind.

Situated on the border of a significant pine plantation in Victoria, this property faced critical fire safety concerns that demanded an innovative approach. The location presented unique challenges:

- High fire risk due to direct proximity to pine plantation.
- Need for immediate emergency response capabilities.
- Requirement for reliable operation during extended fire threats.
- Property owners needed remote access to activate protection systems.
- Water pressure and consistent coverage requirements for effective protection.

THE DAVEY SOLUTION

Director Nick Barry of Ultimate Pumps & Irrigation developed a comprehensive system focused on "ease of use, remote access and performance." The solution features:

- Davey 5190HRS2 pump system drawing efficiently from an external dam.
- Zero-maintenance copper plumbing mainline for longevity.
- Strategically placed Keith Moss sprinklers for complete coverage.
- 25L long-range fuel tank with battery backup system.
- SMS-enabled remote activation capabilities.

The installed system has delivered exceptional results in both functionality and reliability:

Performance Benefits:

- Complete perimeter protection through water curtain coverage.
- Instant activation through remote SMS control.
- Extended operation capability during emergencies.
- Minimal maintenance requirements.

This innovative fire protection system represents more than just a technical solution—it's a blueprint for modern property protection in high-risk areas. Ultimate Pumps & Irrigation's thoughtful integration of Davey's 5190HRS2 pump system with smart technology and fail-safe features demonstrates how contemporary fire protection can be both sophisticated and user-friendly. The success of this installation proves that with the right combination of equipment, expertise, and design, properties in fire-prone areas can be equipped with reliable, long-lasting protection systems that operate exactly when needed.

As climate conditions continue to create challenging fire seasons across Australia, solutions like this showcase the way forward for property owners seeking comprehensive fire protection with remote management capabilities.

WATERCO INNOVATION CASE STUDY

Customer	Amaid / Mareeba Shire Council
Location	Queensland, Australia
Product	Waterco Filters
Main Use	Arsenic-free water

ARSENIC-FREE WATER: A MAJOR GOAL FOR FAR NORTH QUEENSLAND TOWN

Waterco's fiberglass filters were chosen for our water filtration effectiveness

When arsenic levels in the drinking water supply for the Far North Queensland town of Chillagoe were found to exceed recommended levels, it was clear a failsafe solution was paramount.

In response, Mareeba Shire Council engaged Amiad Water Systems, a recognised industry leader in the areas of potable water treatment, to design, construct and commission an arsenic filtration plant that would enable the township to enjoy not only a fresh water supply, but also incalculable long-term health benefits.

"Although a naturally occurring element that can be introduced into water through the dissolution of minerals and ores, elevated levels of arsenic consumption through drinking-water has been linked to the development of serious issues such as bladder, kidney and lung cancer," says Russell Fisher, Process & Project Engineer, Amiad.

"With such major health consequences in mind, it was clear we had to design a solution that would remove all aspect of risk."

With a population of 227, the former mining town of Chillagoe sources its water from a local bore field that registers arsenic levels in the range of 0.010-0.020mg/L, exceeding Australian Drinking Water Guidelines. Design specifications called for the plant to achieve levels of less than 0.005 mg/L.

Constructed in 2014 and commissioned in March 2015, the plant was part of the Queensland Government's Royalties for the Regions funding program, with a focus in installing a new water plant with an arsenic-removal facility.

"To achieve the desired target we proposed a system of Chlorination, Ferric Chloride Dosing, DMI65 Catalytic Media Filtration and Cartridge Filter Polishing," explains Fisher. "The supplied plant is fully automatic and controlled by an Allen-Bradley PLC (programmable logic controller) with a Schneider PC / Touch Screen loaded with Citect Software, for local and remote operation."

THE WATERCO SOLUTION

With water filtration effectiveness obviously a key project component, Waterco was chosen to provide the required fiberglass filters due to their solid reputation for quality and consistency.

For the Chillagoe project, Waterco provided six Micron SMD1050 Side Mount Deep Bed fibreglass filters, which are rated at 6 Bar.

The effect of deep media bed improves the filtration efficiency over standard high-rate filters by providing enhanced in-depth filtration and increasing the contact time with a greater volume of media.

In addition, the greater bed depth permits efficient use of mixed bed filter media and water treatment media (such as the DMI65 media used on this project). The filter's media bed ensures that finer dirt particles and colloidal substances are retained and/or adsorbed to a far greater level than a filter with a shallower bed depth.

"The specific requirements of the Chillagoe plant meant the filters needed to be of a suitable height to allow filling the vessel with media, without having to cut hatches in the top of the shipping container, thus making the filtration solution more economical," says Sam Schuckert, Waterco's International Commercial and International Water Treatment Manager.

"The other key technical aspect involved altering our vessel's pressure rating. In order to pump the water uphill from the filtration plant to the water storage tank overlooking the town, we increased the pressure rating of our filters from the standard 4 Bar to 6 Bar."

Waterco and Amiad have a strong, long-standing working relationship, with Amiad particularly valuing Waterco's FRP media filter design and quality consistency, not to mention good service.

"We have established a very solid relationship with Amiad and understand the specific requirements for the projects the company undertakes," Schuckert says.

The project has proven an unqualified success. The plant has been successfully reducing arsenic levels to 0.001 mg/L, making it suitable for consumption by the local community.

Officially opening the new water treatment plant in April 2015, Mareeba Shire Mayor Tom Gilmore said that the facility provided the Chillagoe community with a safe and potable water supply.

"We are delighted with the result since this is such an important project for the community of Chillagoe and will serve to enhance their health," Cr Gilmore said.

"With water filtration effectiveness obviously a key project component, Waterco was chosen to provide the required fiberglass filters due to their solid reputation for quality and consistency."

says Russell Fisher, Process & Project Engineer, Amiad

DAVEY INNOVATION CASE STUDY

Customer	Kelly Hill Conservation Park, Kangaroo Island
Location	South Australia
Davey Product	Davey DynaDrive, EAFM9 Carbon Media Filter, Kinetico Water Softener
Main Use	Offering a reliable and low- maintenance water treatment system

WATER FILTRATION SOLUTION FOR KELLY HILL CONSERVATION PARK, KANGAROO ISLAND

In the aftermath of the devastating 2019 bushfires on Kangaroo Island, the Kelly Hill Conservation Park faced a significant challenge. The new visitor centre, constructed to welcome tourists back to this breathtaking but remote location, required a sustainable and effective water treatment solution

The visitor centre required a dependable water source, primarily for the new toilet block, which had to be both efficient and environmentally responsible. The main issue was water quality. The dam water was heavily stained with tannins and had a strong odour, making it unpleasant for use and causing potential damage to the plumbing fixtures.

With no connection to mains water, the site had to rely on dam water and restricted rainwater harvesting. Maintaining adequate water pressure was also crucial.

THE DAVEY SOLUTION

Daish Irrigation & Fodder recommended a tailored Davey water filtration system designed to tackle the specific challenges of Kelly Hill Conservation Park:

1. Davey DynaDrive DD90-11:
   A variable speed pump to accommodate varying flow requirements across the toilet block, ensuring consistent water delivery and efficient operation.
2. Davey EAFM9 Carbon Media Filter with Auto Backwash:
   To mitigate sediment and odour issues, the carbon media filter ensures cleaner and odour-free water. The auto backwash function simplifies maintenance, a critical factor given the park's remote location and the limited availability of on-site technical support.
3. Water Softener:
   This product addresses the high tannin content, reducing staining and prolonging the lifespan of the toilet fixtures, enhancing the overall user experience.

The installation had to contend with several constraints:

- **Space Limitations:** The system was designed to fit into a compact area without sacrificing performance.
- **Stringent Standards:** As government property, the equipment needed to meet rigorous operational and maintenance criteria, including environmental considerations given the conservation park setting.
- **Reliability:** The remote nature of the site required a low-maintenance and highly reliable solution, reducing the need for frequent servicing.

Davey Master Dealer, Daish Irrigation & Fodder have long supported the irrigation needs of remote Kangaroo Island so were perfectly placed to offer a solution for a reliable and low-maintenance water treatment system.

WATERCO INNOVATION CASE STUDY

Customer	Midell Water
Location	Central Queensland, Australia
Product	Waterco Filters
Main Use	Arsenic-free water

WATERCO FILTER TECHNOLOGY FACILITATING CSG SUSTAINABILITY AND AFFORDABILITY

Waterco filters in conjunction with an ion exchange filter media get the job done

The environmental challenges associated with coal seam gas (CSG) are well documented, but a project based in Moura, Central Queensland, is demonstrating how the latest water filtration technology can be used to generate vital sustainability.

With water used to bring CSG to the surface contaminated with various hydrocarbons and chemical salts, this particular operation (run by Brisbane-based CSG producer WestSide) is relying on an ingenious technology combination to render the water safe.

"CSG water has a number of challenges," explains Ben Kele, Principal of Midell Water, the company charged with providing sustainable solutions for the project.

"Two key areas that need to be addressed are salinity and sodicity - salinity being a measure of all salts in the water, and sodicity being the measure of sodium salts in the water. The treatment chain we put together actually combines two technologies. One is standard reverse osmosis, which gets rid of all salts. The other is an ion exchange filter, which acts to reduce sodium."

THE WATERCO SOLUTION

With the ion exchange process requiring the very latest in filtration technology, the decision was taken to use Waterco filters.

"We're using the Waterco filters in conjunction with an ion exchange filter media, which actually takes sodium out of the water and puts calcium and magnesium back in," explains Kele. "This results in recycled water that is very good for soil and plant health."

The use of such cutting-edge technology at Moura, located 186 kilometres west of Gladstone, is fitting. Boasting the oldest CSG industry in Australia, it's the place where the viability of the underground energy source was first proven. With its association with the natural resource dating back to the 1970s, it's known as Australia's Cradle of Coal Seam Gas. Kele says the use of Waterco filter technology not only enables the project's environmental mission to be achieved, but also facilitates a high degree of operational affordability.

"When compared to the use of only reverse osmosis technology, the filters used in the ion exchange process allow better economics of water treatment," he says. "With the ion exchange medium with the Waterco filters, you can treat the same volume of water at a much lower cost."

Sam Schuckert, Waterco's National Commercial/Industrial Water Treatment Manager, says the company is committed to providing technology that enables strong industry and environmental outcomes.

"While CSG is an industry with origins dating back decades, it's only relatively recently that the technology required has become affordable enough to make it a viable energy option," he says. "Waterco is proud to have been part of the development of a system that not only helps simplify CSG extraction, but also delivers sustainable outcomes for the surrounding environment."

Having had previous experience with Waterco products, Kele said the choice of Waterco filters for Midell's ion exchange system was an easy one.

"I've been working with Waterco on a variety of projects for seven years and have used the Waterco filters in a number of different locations," he says. "Our company focuses on the types of different media we put within the filters, and the reason we use the Waterco filters is that we get a very good distribution. We find the framework of Waterco filters very much suits our needs."

"We're using the Waterco filters in conjunction with an ion exchange filter media, which actually takes sodium out of the water and puts calcium and magnesium back in, this results in recycled water that is very good for soil and plant health." explains Ben Kele, Principal of Midell Water.

DAVEY INNOVATION CASE STUDY

Customer	High-value crop farm
Location	Campbell Town, Tasmania
Davey Product	Davey ISO Pump
Main Use	Agricultural Irrigation

DAVEY ISO PUMP BOOSTS IRRIGATION EFFICIENCY FOR TASMANIAN FARM

At Davey Water Products, we pride ourselves on providing innovative solutions to complex water challenges. This case study showcases how our ISO CM 150x125-400 55kW 4 POLE close coupled pump significantly improved irrigation efficiency and reduced costs for a high-value crop farm in Tasmania's Central Midlands region.

A farm in the Campbell Town area, known for its diverse high-value crops including poppies, beetroot/carrot seed, barley, oats, and wheat, as well as sheep and wool production, approached our dealer, Irrigear Midlands, with a critical issue. The farm's irrigation system had a "choke point" that was hampering efficiency. The existing system needed to manage water from both river and dam sources, supplying two separate dam fill lines and two pivot pipe lines.

The farmer was facing several challenges with their existing pump:

- Underperformance in water delivery
- High operational costs
- Failing equipment
- Varying water quality depending on the season

THE DAVEY SOLUTION

After a thorough assessment of the farm's needs, our dealer recommended the Davey ISO CM 150x125-400 55kW 4 POLE close coupled pump. This pump was chosen for several key reasons, listed below.

1. **Improved Duty Match:** The pump's specifications were better aligned with the farm's irrigation requirements.
2. **Durability:** The bronze impeller can effectively handle varying water quality.
3. **Energy Efficiency:** The 4-pole motor design helps reduce running costs.

Our Davey ISO pump was installed to replace the existing competitor's pump. The installation process was smooth, and the system was commissioned for open-ended dam fill operations.

The impact of the Davey ISO pump was immediate and significant.

- **Increased Water Flow:** The farmer reported a 70% increase in daily water flow. Previously, they were pumping approximately 5 megalitres per day. With the Davey ISO pump, this increased to about 8.5 megalitres per day.
- **Reduced Operational Costs:** Despite the increased water flow, electricity costs per megalitre decreased by 20%. The previous system cost about $25 per megalitre, while the Davey solution reduced this to $18 per megalitre.
- **Improved Performance:** Upon commissioning, there was no noticeable cavitation in the pump during open-ended dam fill operations, indicating smooth and efficient operation.
- **Versatility:** The pump effectively handles the farm's complex irrigation setup, managing both dam fill and pivot irrigation duties with varying water quality.

This case study demonstrates Davey Water Products' commitment to providing efficient, cost-effective, and durable water solutions for agricultural applications. Our ISO CM 150x125-400 55kW 4 POLE close coupled pump not only resolved the farm's "choke point" issue but also significantly improved their irrigation capacity while reducing operational costs.

By choosing Davey, this Tasmanian farm has optimised its irrigation system, potentially leading to improved crop yields and farm productivity.

WATERCO INNOVATION CASE STUDY

Customer	Jenkinson's Aquarium
Location	New Jersey, United States
Product	Waterco's Commercial Solution
Main Use	Improved Conditions for Sea Animals

HEALTHY AQUARIUM MEANS HAPPY ANIMALS

Seals and penguins are enjoying a better quality living environment

The average backyard swimming pool probably gets a few hours use each day for several months of the year, yet users can still be at risk if the health of the water is not maintained. So imagine the challenges involved with ensuring a clean, healthy environment for a group of two adults who spend much of their lives in the water. That's what happened when the team at Jenkinson's Aquarium at Point Pleasant Beach, New Jersey in the US found the exhibit for their two adult harbor seals wasn't staying clean – despite almost constant backwashing.

The challenge was to create a new life support system for two adult harbor seals that would not only provide the best possible water quality to ensure their health and wellbeing, but also reduce time and money spent on maintenance.

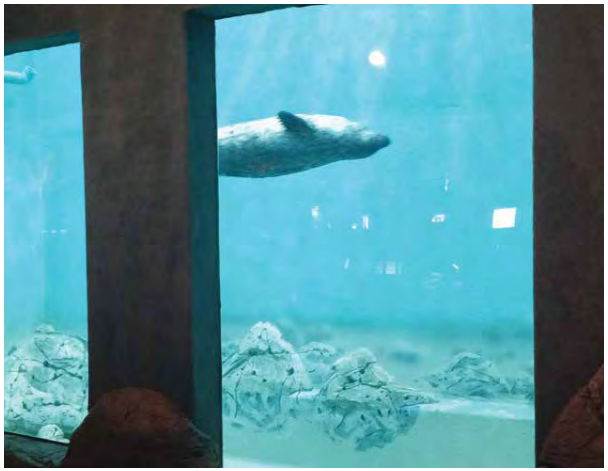
"In our old exhibit we ran two high rate sand filters that were constantly in need of backwash, and the sand was always channelled," Senior Aquarist Angela Pizza says. "Despite this we never really got the clarity and cleanliness from the sand and maintenance was time consuming."

The team had previously experimented with bead media on their penguin exhibit, but found it didn't provide the water clarity they had hoped for. They thought that meant the only option was to stick with sand.

The previous failure of bead media didn't mean the team wasn't open to suggestions of products other than sand. "Our requirements were simply that the media had to give us good water clarity and polishing and keep the water quality optimal for animal health," Angela says. "After meeting with Waterco representatives at the Aquality Symposium in 2014 we were excited to hear of a product that could give us the polishing qualities of sand but with less maintenance."

Angela and the rest of the aquarium team discussed the Glass Pearl media with Waterco's representatives and decided to try it out as part of the Harbor Seal Exhibit renovation. They were thrilled with the results.

"We installed the filters, MultiCyclones and Glass Pearl media on our seal exhibit in April 2015."



THE WATERCO SOLUTION

Glass Pearls operate on the basis of "depth filtration"; dirt is driven through the filter bed and trapped in minute spaces between the particles of filter media allowing the cleansed water to pass through. The water saving ability of Glass Pearl is due to the spherical smooth shape, as this results in a low coefficient of friction. After each backwash, Glass Pearls are cleansed of trapped contaminants.

"After running the new seal exhibit for several months with Waterco Filters, MultiCyclones and Glass Pearl media and being very happy with the results, it was decided we would retrofit a bead media filter on our penguin exhibit with Glass Pearls in July 2015," Angela says. The only change that needed to be done was a simple swap out of the lateral system inside the filter body," Angela adds. "The penguin exhibit, too, is running great."

Angela says both the seals and penguins are enjoying a better quality living environment, while the aquarium is saving time and money on maintenance with the peace of mind that the animals are safe and healthy.

"We run many large sand filters here and to have a media that requires less backwash and still gives the polishing quality of sand is great," she says. "Also, the use of the MultiCyclones on the Harbor Seal system has been a huge help in the removal of solids before they ever reach the filter. So far, the maintenance of these systems has been cut down dramatically, while still giving us the water clarity and quality we require.

Also, a reduction in the amount and length of backwashes was a plus." says Clint Holland from Waterco, "The MultiCyclone technology uses the most advanced hydro cyclone technology which ensures high water quality and clarity – and that was vital for these two water exhibits."

Then there is the added peace of mind that comes with reliability of product quality and service.

"Waterco definitely stands behind their products, which is important to us," Angela says. "We are a small facility and as such are sometimes overlooked by larger companies because we don't use the volume of products larger facilities use."

"After running the new seal exhibit for several months with Waterco filters, MultiCyclones and Glass Pearl media and being very happy with the results, the penguin exhibit, too, is running great." says Senior Aquarist Angela Pizza

DAVEY INNOVATION CASE STUDY

Customer	Almond Farm in Northern Victoria
Location	Mildura, Victoria
Davey Product	Davey 5270YE/HPAUTO Firefighter Pumps
Main Use	Automated, off-grid drainage system for removing excess water from low-lying areas of an almond orchard and recycling it back to the main dam, ensuring optimal soil conditions for almond trees

'NO WET FEET' DRAINAGE SOLUTION FOR NORTHERN VICTORIA ALMOND FARM

In the sun-drenched landscapes of Northern Victoria, where almond orchards meet Victoria's fruit bowl, effective water management is crucial for crop health and productivity. An almond farm faced the challenge of efficiently draining low-lying areas while conserving water resources.

The almond farm required a drainage system that could:

- Efficiently remove excess water from low-lying areas across the property.
- Operate independently of mains power due to limited electrical infrastructure.
- Automatically activate when needed without constant monitoring.
- Return drained water to the main dam for recycling and conservation.
- Provide reliable performance in varying weather conditions.

THE DAVEY SOLUTION

Aaron Newson from Nutrien Water Mildura, working closely with the drainage contractor, recommended a comprehensive solution using Davey products:

- 10 x Davey 5270YE/HPAUTO Firefighter pumps.
- Each pump was equipped with a automatic controller for start/stop functionality.
- With float switches to activate the pump controllers - in the strategically placed drainage pits across the site.

This solution was chosen for its:

- High performance and reliability, crucial for agricultural applications.
- Off-grid capability, addressing the limited power supply on the property.
- Automatic operation, reducing the need for constant monitoring.
- Durability to withstand outdoor agricultural conditions.
- Ability to efficiently move water from drainage pits back to the main dam.

The installation of the Davey drainage system resulted in:

1. Effective water removal from low-lying areas, preventing waterlogging of almond trees.
2. Automated drainage management, reducing labor and monitoring requirements.
3. Successful water recycling, supporting sustainable farming practices.
4. A reliable, off-grid solution that operates independently of mains power.

"For this project, our client required reliability and flexibility. We selected a quality, Australian manufactured firefighting pump from Davey which met their needs and offered back up support for Nutrien Water and our Client." says Aaron Newson, Nutrien Water Mildura.

WATERCO INNOVATION CASE STUDY

Customer	Maryland Zoo
Location	Baltimore, United States
Product	Waterco's Commercial Solution
Main Use	Centrifugal water filtration combined with Glass Pearl purity

BIODIVERSE MARSH AVIARY EXHIBIT MARYLAND ZOO IN BALTIMORE, USA

Changing from sand to Waterco's glass pearl media was the best decision made

A combination of Waterco Glass Pearls, MultiCyclone filtration and SM1050 filters create a healthy ecosystem for native bird species.

- Glass perals solve challenge of impaction problem caused by sand filter media
- Filtration solution reduces staff and material costs, and exhibit downtim
- 20% less backwashing results in significant water and power saving

Opened in 1876, the Maryland Zoo in Baltimore is the third oldest zoo in the United States. The historic 135-acre site, which is located in historic Druid Hill Park, is home to over 2,000 animals with the largest area dedicated to species originating from the African continent.

The zoo's 12,000-gallon marshland aviary exhibit imitates a typical wooded freshwater marsh found on the upper eastern shore of Maryland, where numerous rivers flow into Chesapeake Bay. A type of wetland dominated by grasses, marshes are transition zones between dry land and open water. As such, they are critical to the survival of many species of resident and migratory birds, fish, reptiles, amphibians, and invertebrates. Maryland Zoo's Marsh Aviary is home to many native bird species including turkey vulture, black vulture, wood duck, black-crowned night heron, little blue heron and cattle egret.

Zoo technicians were plagued with ongoing issues involved with impaction of the existing sand filter. A combination of algae, dissolved waterfowl diet and bacterial film had resulted in the sand in the sand filters loading up rapidly and clumping together, significantly blocking flow several times over an 18-month period.

"Because of the gelatinous nature of the biomaterial, the sand would clump into large bricks that could not be broken up during backwashing," explains Waterco's Marketing Manager and Life Support Development, Kristina Macias. "Therefore, the sand had to be removed and replaced in a matter of a few months. This negatively impacted exhibit appearance, water quality, and the overall functionality of the Life Support System."

THE WATERCO SOLUTION

Joey Stokes, an engineer/technical support manager for Waterco, suggested Glass Pearl media in place of sand to reduce impaction of the filter media. Manufactured from 100% pure glass, Waterco Glass Pearls offer much finer filtration than conventional filter media. Whereas other filter media may contain a variety of contaminants, glass pearls are chemically inert for superior purity. They also require up to 20% less backwash water than sand, saving operators valuable time and water.

Operating on the basis of 'depth filtration', dirt is driven into the filter bed and trapped in minute spaces between the particles of filter media, allowing clean water to pass through.

An Australian innovation, the MultiCyclone is a pre-filtration device, was installed to improve efficiency and to capture up to 80 per cent of the incoming dirt load prior to the main filter, which then significantly reduces filter maintenance and saves backwash water. Based on centrifugal filtration, incoming water is guided by a diverter plate so that it enters 70 hydro cyclones that spin the sediment out to the hydro cyclone's wall. It then spirals it down to the sediment chamber, while the clean water spirals upwards and out. Subsequently, there is no filter media to clean or replace and no moving parts that cause wear and tear.

Waterco's filtration solutions have not only reduced labor and material costs, along with exhibit downtime, but also reduced the time it previously took zoo technicians to replace the filter media every few months.

"We have been running the Glass Pearl media for four months," says Maryland Zoo's water quality tech-operator, Kyle D. Leister. "Thus far, we have only good things to say about the new media."

The biggest improvement, Kyle explains, is that the biomaterial trapped in the filters – or 'sludge' as he refers to it – is now easily removed with a short backwash of municipal water.

"Previously, we used quartz silica sand and the sludge would become embedded in the media, making proper backwashes impossible," Kyle says. "Every few weeks we used to have to open the filters, chlorinate overnight, then use a cement mixing paddle on a drill to break up the media prior to backwashing. In eighteen months, new sand had to be replaced twice before we decided to take the plunge and switch to glass pearls."

Furthermore, with normal 0.8mm sand filter media, a 10-minute backwash with the same flows and pressures would drop the pressure from 30+psi to around 15psi, which wouldn't last long. However, with Waterco Glass Pearls, zoo technicians can achieve pre-load pressures <10psi after only a three-minute backwash from 30+psi – even when they were running the system only using one filter.

Waterco's Micron Commercial Fibreglass Filters are made from continuous strands of high quality fibreglass filament wound under controlled tension to create a seamless, impervious vessel.

DAVEY INNOVATION CASE STUDY

Customer	Hass Pumps
Location	Corio, Victoria
Davey Product	Davey ISOspec, CF pumps and Davey VM Vertical Multistage Pumps
Main Use	Fire sets for commercial premises, especially warehouses

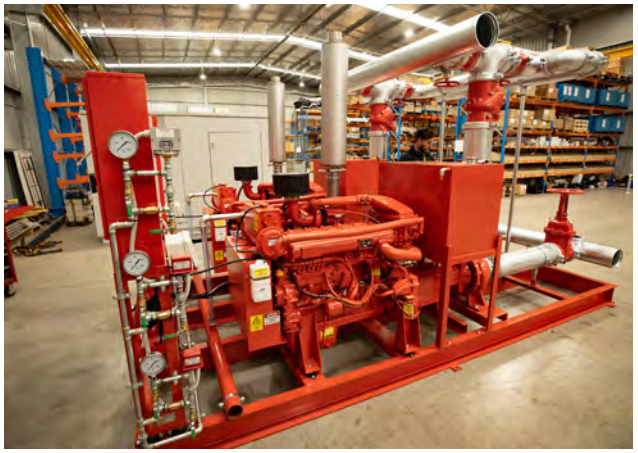
DAVEY ON RED ALERT TRUSTING THE PUMP YOU NEVER WANT TO USE

Davey's CF ISOspec pumps are providing peace of mind for an innovative Aussie business in Victoria, as well as its customers across the country.

When the fire sprinklers go off in a building, the water they spray to douse the flames is driven by the kind of fire pump system that is built by Jason Hassett and his team at Hass Pumps in Corio, near Geelong in Victoria.

The fire pump is a key element in a fire system. Each and every fire pump system is tailor made to match the size and fire risk of the building it's going into. Then, if a fire is detected the pumps can reliably dump huge volumes of water through the sprinkler or deluge system heads.

A single fire pump system from Hass includes two pumps: an electric driven pump and a diesel pump. In many instances, electricity may still be available to drive the first pump when an isolated fire breaks out, but the second pump is ready to go if the power goes off or has to be disconnected by firefighters. Depending on the size of the job, Jason produces single, double and even triple sets.



THE DAVEY SOLUTION

Jason had been using a different brand for his pump components, but when his customers started reporting problems with the impellers in their pumps, he knew he had to make a change, and fast.

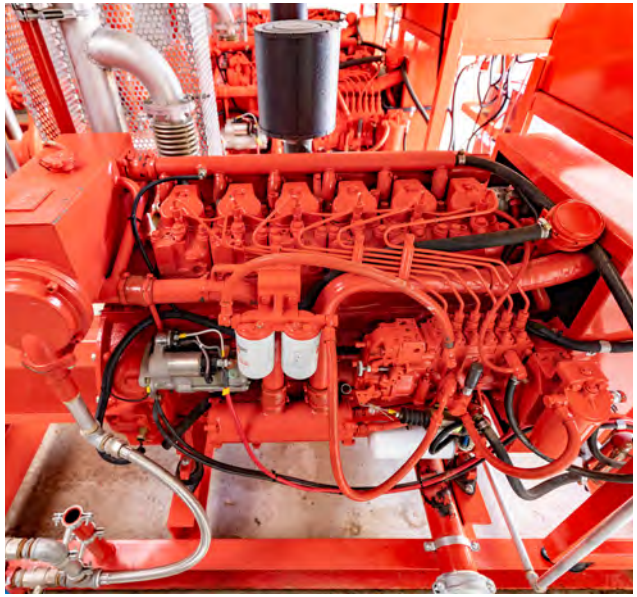
"The pump is at the heart of the solution. It has to work," he says. "When the system is triggered it delivers up to 150 litres of water per second. About six or seven years ago we started getting issues with the pumps we'd been using, and the warranty claims were really difficult to resolve.

"We looked to Davey because we knew it was a reputable brand, and because Davey knows fire products. Davey is right here in Melbourne, the sales reps were fantastic and we have an easy working relationship with them, with no issues with the Davey product to this day. What Davey offers is reliability of supply, easy operation, quality materials and products that are designed to be easy to work on when maintenance or servicing is required."

Jason says his customers recognise the Davey brand and are reassured to know their Hass product uses premium componentry. Beyond this, Jason says the Davey approach matches his own.

"It's about quality and service. There's a synergy with how we work together. My customers expect the best from me, and I expect the best from my suppliers. I am straight up and down with my customers and that's how Davey is with me."

Jason uses about 20 different Davey pump models in his products, depending on the job specification, mostly from the CF ISOspec and VM ranges. The CF range, adaptable for electric or diesel use, is an ISOspec range of bareshaft pumps designed for easy pump maintenance and removal of rotating components. The VM range is a hard-working, efficient and high-quality range of electric motor driven pumps.



Davey products are assembled in Melbourne and go through stringent testing. When you install a Davey, you have the support of an Australian brand – with local training and expertise.

WATERCO INNOVATION CASE STUDY

Customer	Mablethorpe Seal Sanctuary and Nature Centre
Location	United Kingdom
Product	Waterco's Commercial Solution
Main Use	Improved living conditions for seals

SEALS ARE NOW MORE CONTENT, HAPPY AND THEY HAVE A CLEANER ENVIRONMENT TO LIVE AND PLAY IN

Just 50 metres from the North Sea, on the East Coast of the United Kingdom, a small wildlife sanctuary is making a big difference to the lives of animals that might have otherwise perished.

Mablethorpe Seal Sanctuary and Nature Centre is a charity-run facility. Since its establishment in 1974, around 1000 seals have been rescued and rehabilitated in the onsite hospital.

The multiple seal pools are home to several rescued seals that cannot be released into the wild due to permanent injury or reliance on human care. Set on two and half acres of sand dunes, the sanctuary provides an ideal environment for the seals, as it is free of predators and pollution.

However, the seals were not always so happy in their environment; the facility previously hired all the equipment for its filtration system, and according to Dennis Drew, the centre's director, it wasn't quite up to scratch.

"Originally we were hiring a filtration system which was not only expensive but did not really do a good job in filtering the water," says Dennis. "The seals are impacted by the cleanliness of the water. With the new system, they are now more content, happy and they have a cleaner environment to live and play in."

Due to nature of the organisation, it was difficult finding a suitable system to fit the budget; however, Waterco provided the products, which included an 70XL Commercial MultiCyclone, two Micron SMDD 1050 fibreglass filters, three Hydrotuf pumps and glass media, for a reasonable cost.

"We were more than happy to help out by providing the necessary equipment and installation within their budget for such a great cause," says Tony Fisher, managing director of Waterco Europe. "The products were recommended because of previous installations of Waterco filtration systems in enclosures for seals, penguins and crocodiles at other leading UK zoos where great results were achieved."

THE WATERCO SOLUTION

These particular Waterco products have shown themselves to be very effective in catering for sea animals such as seals at various other wildlife parks and zoos all over the world, which made them an obvious choice for this project.

Waterco's Commercial XL70 MultiCyclone has been specifically designed to handle larger water capacities, while the Micron SMDD 1050 filter improves the filtration efficiency over standard high-rate filters by providing enhanced in-depth filtration, a superior lateral under drain design and increased dirt capacity. The three Hydrotuf pumps work to reduce maintenance with its large capacity 2.25L strainer basket, making it ideal for bigger pools such as the seal pools at Mablethorpe.

The owners and operators of the Mablethorpe Seal Sanctuary are very happy with the installation of the Waterco filtration system. They are now experiencing a myriad of benefits, including better water quality, not to mention having a filtration system designed specifically for the seal pools. An additional benefit is that they are now saving money through their ownership of the filtration system being used.

"Cleaner and better looking water is beneficial for both the seals and the visitors when looking at the seals in the water," explains Dennis.

"Waterco products have shown themselves to be very effective in catering for sea animals such as seals at various other wildlife parks and zoos all over the world, which made them an obvious choice for this project." says Tony Fisher, Managing Director of Waterco Europe.

DAVEY INNOVATION CASE STUDY

Customer	Dusty Rural Contracting
Location	Coolac, New South Wales
Davey Product	Davey Firefighter
Main Use	High-pressure sheep jetting system treating 1200+ sheep per hour for flystrike and lice prevention

SMART LIVESTOCK PROTECTION: OEM SOLUTION POWERED BY DAVEY

In the demanding world of livestock management, efficient and reliable pest control solutions are essential for maintaining healthy sheep populations. This OEM solution from Dusty Rural Contracting represents a breakthrough in automated livestock treatment systems.

Modern sheep farmers face several critical challenges in maintaining effective pest control measures:

- Need for precise and efficient chemical application
- Requirement for automated, labor-saving solutions
- Importance of reducing chemical wastage
- Demand for robust, reliable equipment
- Need for easy maintenance and operation
- Requirement for flexible application options

THE DAVEY SOLUTION

Sheep jetting is the process of preventative treatment application of chemical utilising high pressure to increase efficiency. It speeds up a day's work, cutting time and manual work for the farmer. This sheep jetting system utilises high pressure sprayers fed by a Davey Firefighter pump to spray sheep with chemical to prevent flystrike & sheep lice, designed to effectively treat between 1200+ sheep per hour.

- Advanced 20-jet system with Davey Firefighter twin impeller Honda pump (9hp standard/13hp optional)
- Electronic eye sensor for automated operation
- Adjustable side panels with spring-loaded design
- Automated pressure-monitoring gate system
- Galvanised construction for durability
- Sub-100kg design for easy handling

The installed system delivers practical benefits for farming operations:

- Flexible chemical application with adjustable 5-20 jet operation
- Reduced labour through automated sensor activation
- Minimised chemical waste through targeted application
- Simple two-person setup and maintenance
- Effective control of both fly and lice infestations

The OEM solution, powered by Davey's Firefighter twin impeller pump technology, demonstrates how innovative engineering can create practical solutions for farmers.

As farming practices continue to evolve, solutions like this showcase the potential for technology to improve both operational efficiency and animal welfare outcomes while reducing chemical waste and labour requirements.

WATERCO INNOVATION CASE STUDY

Customer	Surfside Pools / 'The Darling' at the Star
Location	Queensland, Australia
Product	Hydrostar pumps, Micron Commercial Fibreglass Filters TBC
Main Use	Swimming Pool TBC

WATERCO SPECIFIED FOR LANDMARK HIGH-RISE POOL PROJECT

Perched 67 metres above ground and extending five metres beyond the side of the multi-storey tower is a rooftop pool that offers jaw-dropping views of Queensland's coastline.

Designed and constructed by multi-award-winning Surfside Pools Commercial, the 36m x 9m infinity pool relies on Waterco to maintain premium water quality for guests staying at 'The Darling' at The Star Gold Coast

To combat high bather loads, high humidity, and its seaside location, pool filtration equipment needs to be reliable, durable, and low maintenance — qualities synonymous with Waterco.

This installation includes:

- 2 x Waterco Hydrostar MK3 500 pool filtration pumps
- 2 x Waterco Micron S1200 Sand Filters with Glass Pearl media
- 1 x Waterco Hydrostar MK3 400heater circulation pump

Hydrostar pumps are high performance, corrosion resistant thermoplastic pumps purpose-built for commercial swimming pools, aquatic facilities, and water parks.

The pump body is manufactured from Waterco's proprietary plastic moulding with a single piece strainer pot and volute for extra strength. The Hydrostar MKIII's internal volute hydraulic design provides a natural balanced water flow and reduces hydraulic turbulence, resulting in substantially quieter operation.

Micron Commercial Fibreglass Filters are manufactured from the highest grade of noncorrosive materials to ensure years of trouble-free operation.

Waterco's Fish Bone lateral configuration is ideal for large-scale commercial filters as they eliminate 'dead legs' by improving water flow distribution through the filter bed.

THE WATERCO SOLUTION

Glass Pearl filter media delivers outstanding water clarity by driving dirt through the filter bed and trapping it in tiny spaces between the particles. This allows cleansed water to easily pass through.

Each Glass Pearl is manufactured to specific geometrical shapes, providing an extremely narrow particle size range of 0.6mm to 0.8mm. This creates a dense, homogeneous filter media bed capable of filtering particles down to 3 microns. A micron is equivalent to one millionth of a metre.

Exceeding client expectations

Surfside Pool's technical engineering expertise has been recognised onnumerous projects, including 'The Darling' at The Star which received the prestigious SPASA National Gold Award for Commercial Projects.

"Innovative design and ingenious engineering have become our signatures," says Surfside Pools Commercial Construction & Operations Manager, Bryan Moore. "Sometimes it involves overcoming significant logistical challenges". Invariably, it means looking beyond the predictable to create a fitting tribute to the broader building or venue.

"It's how we always get our clients noticed," he continues, "and how we've consistently earned industry recognition. The equipment we install must also meet the high standards our clients expect from us. Waterco exceeds those expectations every time, which is why it was the preferred choice for this landmark project."

Water and energy efficiency

The Star Gold Coast is committed to environmental best practice, boasting its own on-site water treatment facility, water Efficiency Management Plan, and dedicated Water Committee. Of the four product ranges installed, three have received Climate Care Certification from industry association, SPASA.

Whilst highly efficient, these products combined and operated in the correct way enable commercial pool owners to reach the highest levels of environmental sustainability.

The Hydrostar MKIII's internal volute hydraulic design provides a natural balanced water flow and reduces hydraulic turbulence

DAVEY INNOVATION CASE STUDY

Customer	Wingecarribee Shire Council
Location	Corbett Gardens, Bendooly Street, Bowral, NSW
Davey Product	Davey Dual Sumbersible Pump System (2.2kW 3pH)
Main Use	Water feature circulation system for public garden fountain display

POWERING BEAUTY: HISTORIC CORBETT GARDEN'S FOUNTAIN REVIVAL

Wingecarribee Shire Council sought to enhance this beloved space with a new water feature installation that would complement the garden's heritage character while providing a sustainable and visually striking addition to the landscape.

In collaboration with Wingecarribee Shire Council, the team at Irrigear Mossvale helped to deliver and install a comprehensive water feature solution utilising a Davey dual submersible pump system. These high-performance pumps were specifically chosen for their reliable water circulation capabilities and energy efficiency. The project brought together local expertise from Irrigear Moss Vale for plumbing and Concept Engineering Mittagong for electrical systems, ensuring a seamless integration with the garden's existing infrastructure.

The project was executed through a coordinated effort between our local partners, ensuring minimal disruption to garden operations. Irrigear Moss Vale handled the installation of the dual submersible pump system and associated plumbing, while Concept Engineering Mittagong managed the electrical components and timer system integration. The system were strategically positioned to optimise water circulation and maintain consistent fountain display. All work was completed to Australian standards, with comprehensive testing and staff training provided upon completion.

THE DAVEY SOLUTION

The water feature installation has successfully enhanced Corbett Gardens through:

- Efficient and reliable automated operation with minimal maintenance requirements.
- Improved visitor experience and creation of a new garden focal point.
- Seamless integration with existing infrastructure and garden aesthetics.
- Positive feedback from both council management and garden visitors.

The Corbett Gardens water feature project demonstrates the successful collaboration between local businesses and council authorities to enhance a significant public space. The installation of the Davey dual submersible pump system not only meets the technical requirements for reliable operation but also respects and enhances the garden's historic character.
The project's success is evidenced by:

- Seamless integration with existing garden infrastructure.
- Positive council and community feedback.
- Enhanced visitor experience during both regular operations and festival periods.
- Sustainable operation through efficient water management.

This installation stands as a testament to the value of local expertise and collaborative approach in delivering solutions that serve both practical and aesthetic purposes in public spaces.

WATERCO
water, the liquid of life
DAVEY

DO YOU NEED COMMERCIAL SUPPORT?

General Commercial Enquiries commercial@daveywater.com | commercial@dwp.co.nz
AU Specialist Commercial Sales Team commercial@daveywater.com
ANZ Specialist Commercial Filtration Team commercial@waterco.com

H/O & MFG SCORESBY
Certified System Quality ISO 9001
Certified System Environment ISO 14001

waterco.com.au
daveywater.com

WATERCO H/O
36 South St,
Rydalmere NSW 2116
Ph: AU: 9898 8600 NZ: 0800 928 373
Email: administration@waterco.com

AUSTRALIA H/O
6 Lakeview Drive,
Scoresby, VIC Australia 3179
Ph: AU: 1300 232 839 NZ: 0800 654 333
Email: sales@daveywater.com

DWP3261-1/0626