Pump Stations
Concrete

Built under ISO9001
Quality Management System
WSAA Appraisal No. 10/11
Designed to comply with
Australian Standards
Concrete Pump Stations

Aquatec’s Concrete Pump Stations are structurally engineered to deliver on individual project specifications, operational requirements and site conditions.

Service Capabilities

Our end-to-end service model streamlines the time and costs associated with managing multiple suppliers to deliver a superior level of quality control.

Consultation, custom design and ISO 9001:2008 manufacturing processes produce quality outcomes purpose built to your exact specifications.

Aquatec manages the compliance and commissioning process to deliver a fully functioning Concrete Pump Station. Supported by accredited operation and maintenance training, after sales service and market leading product warranties.

Design & Drawing Services
Project Management
Procurement Officers
Craning & Excavation Briefs
On-site Installation Training
On-site Delivery Supervision
Guaranteed Seal Integrity
Qualified Mechanical Fitters

Qualified Electricians
Power Management
Quality Assurance Audits
Pre-testing, Commissioning & Compliance Checks
Scheduling & Management of Final Testing & Commissioning
Accredited Operation & Maintenance Training
After Sales Service & Warranty
Hydraulic Design
Aquatec takes an unbiased approach to hydraulic design to maximise pump efficiency and product longevity. Calculated in accordance with Water Authority requirements and the WSAA sewerage code.
Aquatec works closely with our clients to deliver expert knowledge across flows, friction loss, static lift, atmospheric, pipe sizing and air locks.

Design & Drawing Services
Aquatec’s Design and Drawing Services deliver a full set of drawings customised to meet the unique needs of your project. Our Technical Consultants establish a detailed understanding of site conditions to determine Pump Station size, flow rate, head pressure, storage requirements and layout solutions.
Expert guidance across Australian Standards, WSAA and WHS regulations together with recommendations on the latest global innovations combine to deliver a customised solution for the long-term.

Key Optional Accessories
Aquatec offers a wide range of Optional Accessories to meet or improve on your project specifications.

Key Optional Accessories include:
- Fibreglass Storage Vessels
- Lighting (internal / external)
- Mixers
- Flow Meters
- (separate pits available)
- Inlet Valves / Drop Pipes
- Fans and Blowers
- Scour Lines / Pump Out Points
- In Series Pumping

System Design
Aquatec’s product designs have achieved benchmark status with State Governments, Water Authorities and Local Councils.
Product Integrity

Government and Industry Bodies regularly consult with Aquatec for guidance on best practice product development and safety standards.

Concrete Pump Stations form an integral part of Australia’s infrastructure and perform a vital service for the community.

For the past 30 years, Aquatec’s commitment to product integrity has remained central to our daily operations.

Manufacturing Process

Aquatec’s Concrete Pump Stations are manufactured in a controlled factory environment under strict ISO 9001:2008 standards. Proprietary mould designs are precast and manufactured to exact specifications. Unlike cast in-situ Pump Stations, our product quality is not subject to weather, site conditions and associated time delays.

Quality Control

Aquatec’s manufacturing process is subject to a series of strict Quality Control measures to achieve superior product quality:

- Engineered to withstand loading
- Intensely vibrated
- Curing time
- Concrete strength
- Controlled cover to reinforcement
- Checklists / hold points
- Concrete batch serial numbers
- Transportation

Concrete Pump Stations

Built to Australian Standards
AS3735 / AS3600
WSAA Appraisal
No. 10/11
### Design Innovation

Our product designs have received recognition from WHS Industry Bodies, Water Authorities and Councils for setting new standards in environmental risk management, safety and serviceability.

Our Concrete Pump Stations offer considerable environmental benefits over Pump Stations poured in-situ. Aquatec’s ability to deliver our product to site as a precast unit minimises excavation periods and disruption to flora and fauna. Our proprietary Integral Valve Chamber requires less space in the overall design, resulting in a smaller environmental footprint. Our Concrete Pump Station design considers a provision for additional storage vessels to safeguard the environment against the potential risk of effluent overflow.

#### Integral Valve Chamber

Engineered to eliminate the line up of separate valve chambers, Aquatec’s Integral Valve Chamber prevents differential ground settlement. The 90º dismantling elbows are located inside the Valve Chamber, facilitating the safe and easy removal of pipework and valves for maintenance purposes without entering the wet well.

#### Guaranteed Seal Integrity

Aquatec applies a proven mastic sealant to all joints to deliver a guaranteed impregnable vessel, protecting the environment from sewer contamination and the Pump Station from ground water ingress.

#### External Valve Chambers

Aquatec provide flexibility by offering a range of precast external valve chambers to accommodate large pipework. Our standard moulds are poured in a controlled factory environment and delivered to site as a complete unit to increase time and cost efficiencies.

#### One-piece Cover Slab

The one-piece cover slab is capable of housing the lids, switchboard cubicle, vent stack and RPZ assembly, eliminating any additional on-site concrete works. Access covers are cast into the cover slab for external maintenance purposes.

#### Mold Formed Construction

Aquatec’s Concrete Pump Stations are mould formed to deliver an impressive design that stands the test of time. Spacious manhole chambers and smooth concrete internal surfaces cover ever-reinforcement.

### Product Range

<table>
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<tr>
<th>Model Number</th>
<th>Integral Diameter</th>
<th>Integral Valve</th>
<th>Incl. Single Unit</th>
<th>External Valve</th>
<th>Material Quality</th>
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Pump Controls

- Designed to deliver on individual Water Authority and Council requirements, Aquatec’s Control Systems are manufactured to AS3000 electrical specifications. From small wall-mounted controls to advanced, freestanding multi-door controllers, our solutions achieve optimum equipment protection, service reliability, ease of operation and simplified maintenance.

Level Controls

- Aquatec offers a variety of methods for level control, including float systems, hydrostatic pressure transducers, ultrasonic, radar and probes.

Telemetry & Monitoring Systems

- Tailored to adapt to the host off-site control unit, Aquatec’s Telemetry & Monitoring SCADA monitoring, phone dialing and BMS systems cater for all types of applications.

Telemetry, Monitoring & Control Systems

Aquatec’s custom approach to Control Systems delivers a consistently high level of operational integrity.
Our product designs have dramatically reduced the likelihood of accidents by incorporating external maintenance and access methods.

Safety Features

Aquatec incorporates advanced safety features into the design of every Concrete Pump Station for the safety of installation and maintenance personnel.

External Maintenance Access

Aquatec’s Concrete Pump Stations are designed so that most components within the wet well can be serviced externally without entering the chamber, eliminating the need for confined space entry permits and reducing safety risks for maintenance personnel.

Reduced Excavation Periods

Site excavations are often left unnecessarily exposed for long periods of time, presenting serious safety risks for installation personnel. Aquatec’s modular Pump Station designs feature rotational locating keys on each segment and one-piece Integral Valve Chamber increments to decrease installation time, reducing the excavation period required during installation.

Stainless Steel Swift Lifts

Within the base increment, 316 Stainless Steel “rated swift-lifts” enable safe, easy removal of lifting clasps during installation, eliminating any corrosion throughout the reinforcement.

Access Covers

Available in 316 stainless steel, aluminium, galvanised or cast iron, Aquatec’s wet well Access Covers feature a WHS approved safety grid as standard, providing an added lay flat, safety fall arrest system for maintenance personnel.
Safety Accessories

Aquatec’s optional Safety Accessories offer added safety protection for maintenance personnel, supplied in accordance with WHS safety standards.

Lifting Devices
Aquatec offers a range of Lifting Devices to enable safe pump removal for maintenance personnel in accordance with WHS requirements.

Rated Anchor Points
Aquatec’s Rated Anchor Points are cast into the cover slab at various locations for securing lifelines and harnesses, delivering a superior fall protection solution for maintenance personnel when required.

Access Ladders & Landings
Available in 316 stainless steel, galvanised, powder coated, or glass reinforced plastic, Aquatec’s Access Ladders and Landings are incorporated into product designs where internal well access is required.

Our Technical Consultants can advise on landing depths and sizes in accordance with WHS safety requirements. Aquatec’s Ladders are available with non-slip knurled rungs for added safety protection.

Handrails
Aquatec’s range of permanent and portable Handrails offer additional safety protection for maintenance personnel. Available in 316 stainless steel, galvanised steel, powder coated or aluminium, our Handrails are incorporated into Concrete Pump Station designs in accordance with AS 1657-1992 or Water Authority requirements.
Ventilation Systems

Aquatec’s Vent Stack and Odour Filter Systems extract unpleasant odours, noxious and corrosive gases from Pump Stations, surrounding buildings, homes, sewer lines and confined spaces. Available in UV resistant PVC, FRP, powder coated steel, galvanized steel or 316 Stainless Steel, our Ventilation Systems are built to withstand long periods of exposure to Australia’s harsh climate.

Wet Well Wastewater Conditioners

Aquatec’s unique Wet Well Wastewater Conditioners recycle and return wastewater back into the well to homogenise solids. This eliminates the need for water supply and prevents the build up of grease, fats, oils and increases dissolved oxygen levels. Clean out cycles are reduced by as much as 95% and liquid chemical usage is reduced by as much as 35%.

Wet Well Washers

Aquatec’s Wet Well Washers eliminate the need for manual cleaning of wet well walls and components, preventing build-up of corrosive fat residues and reducing infrastructure corrosion. Manufactured from high-grade stainless steel, our Wet Well Washers are corrosion resistant, low maintenance and capable of operating via automated control systems.

Dosing Systems

Aquatec’s Dosing Systems are customised to deliver on Pump Station depths, diameters, flows and detention times. Designed to control odour, septicity and corrosion, Aquatec’s Dosing Systems systematically remove odours and phosphorus build-up over time.

Odour Controls

Aquatec’s range of optional Odour Controls reduce unpleasant odours and gases while extending the life of your asset.
## After Sales Service

### Maintenance Training
Aquatec’s Maintenance Training caters for existing personnel in need of additional assistance or new personnel unfamiliar with the operational and maintenance requirements of our Concrete Pump Stations.

### Technical & Product Support
Aquatec’s Technical and Product Support Service responds to any product or technical enquiry, including recommendations on safe-use of our products.

### Service Warranty
Aquatec are committed to providing full after sales service, support and long term warranty on all components and workmanship.

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## Environment
Aquatec are committed to sustainability.
This publication was produced using carbon neutral & FSC® certified paper.

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