

# Fibreglass Pump Stations

Aquatec's Fibreglass Pump Stations are manufactured as a one-piece construction to exact project specifications. Delivered to site as a complete unit with a simple installation process, Aquatec's Fibreglass Pump Stations are engineered to withstand internal and external loadings across all ground conditions.

#### Service Capabilities

Aquatec's end-to-end service model incorporates consultation, custom design, manufacture and delivery, commissioning, training and life cycle management.

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

- Design & Drawing Services
- Project Management
- Procurement Officers
- Lifting & 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

# System Design

Aquatec's product designs have achieved benchmark status with State Governments, Local Water Authorities and Councils.

#### Hydraulic Designs

Aquatec takes an unbiased approach to hydraulic design to maximise pump efficiency and product longevity. Calculated in accordance with Water Authority requirements and the WSSA sewerage code.

Aquatec works closely with our clients to deliver expert knowledge across flows, friction loss, static lift, atmosphere, pipe sizing and air locks.

#### Design & Drawing Services

Aquatec's Design & Drawing Services deliver a full set of drawings customised to meet the unique needs of your project. Our Technical Consultants work closely with our clients to 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. Our Technical Consultants will make recommendations for enhancements to your Fibreglass Pump Station based on budgets and the unique demands of your application.

Key Optional Accessories include:

- Fibreglass Storage Vessels
- Lighting (internal / external)
- Mixers
- Flow Meters
- (separate pits available)
- Inlet Valves / Drop Pipes
- Fans & Blowers

Scour Lines / Pump Out Points

- In Series Pumping
- Well Washers







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# **Product Integrity**

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

Fibreglass 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 Fibreglass Pump Stations are manufactured in a controlled factory environment under strict ISO 9001: 2015 standards. The Pump Station mould designs are 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 holds JAS-ANZ third party accreditation, and our manufacturing process is subject to a series of strict Quality Control measures to achieve superior product quality:

- Controlled factory conditions
- Computerised winders for controlled wall thickness
- Checklists / hold points
- Third party engineer's certificates
- Transportation



Built to Australian / British standards Certified by a Registered Composite Engineer WSAA Appraisal No. 1319



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# Design Innovation

Aquatec's Fibreglass Pump Stations offer considerable environmental benefits over pump stations poured in-situ.

Aquatec's ability to deliver our product to site as a one-piece unit minimises excavation periods and disruption to flora and fauna. Our Integral Valve Chamber requires less space in the overall design, resulting in a smaller environmental footprint.

Every Fibreglass Pump Station design considers a provision for additional storage vessels to safeguard the environment against the potential risk of effluent overflow.

### Guaranteed Seal Integrity

Aquatec's Fibreglass Pump Stations are manufactured as a completely sealed, one-piece vessel. All penetrations and wall fixings through the structure are carried out in the factory with compatible materials, allowing no chance of ingress or egress.

#### Product Range

Model Number	Diameter ———————————————————————————————————	рертп	volume	Model I
AFPS12	1250mm	1-20m*	1,200-24,000L	AFPS30
AFPS15	1500mm	1-20m*	1,700-34,000L	AFPS33
AFPS18	1850mm	1-20m*	2,500-53,000L	AFPS35
AFPS20	2000mm	1-20m*	3,100-62,000L	AFPS40
AFPS22	2200mm	1-20m*	3,500-75,000L	AFPS45
AFPS25	2500mm	1-20m*	4,900-98,000L	AFPS50

 m\*
 1,200-24,000L
 AFPS30
 3000mm
 1-20m\*
 7,000-140,000L

 m\*
 1,700-34,000L
 AFPS33
 3300mm
 1-20m\*
 8,200-170,000L

 m\*
 2,500-53,000L
 AFPS35
 3500mm
 1-20m\*
 9,600-192,000L

 m\*
 3,100-62,000L
 AFPS40
 4000mm
 1-20m\*
 12,500-250,000L

 m\*
 3,500-75,000L
 AFPS45
 4500mm
 1-20m\*
 15,900-320,000L

 m\*
 4,900-98,000L
 AFPS50
 5000mm
 1-20m\*
 19,600-39,000L

# olume 000-140,000L 200-170,000L 5,000-250,000L 5,900-320,000L 9,600-392,000L



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.

#### External Maintenance Access

Aquatec's Fibreglass 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.



#### Integral Valve Chamber

Aquatec's Integral Valve Chamber incorporates industry leading operational and safety benefits for maintenance personnel.

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

#### External Valve Chamber

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



#### One-piece Chamber

The Pump Station base and sludge batter are mould formed as one piece to strengthen the overall structure, while the steep sludge batter is shaped to prevent solids build-up, eliminating dead zones behind pump pedestals. The top cover, walls and base are glassed together to provide an impervious, holistic structure. The Pump Station base is designed to withstand pump weights, vibrations and ground forces.

#### Filament Wound Construction

Aquatec's Fibreglass Pump Stations are constructed using a state-of-the-art computerised winder and manufactured with the highest-grade resins and continuous rovings to achieve benchmark standards of quality and integrity.







# Telemetry, Monitoring & Control Systems

Aquatec's custom approach to Switchboards and Control Systems delivers a consistently high level of operational integrity.

# In-House Design & Manufacturing

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Designed to deliver on individual Water Authority and Council requirements, Aquatec's Control Systems are manufactured in-house to meet AS/NZS 61439 standards and AS/NZS 3000 wiring regulations. 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 for specific applications or preferences.

#### Telemetry & Monitoring Systems

Tailored to adapt to the off-site host control unit, Aquatec's telemetry SCADA monitoring, phone dialing, sms and BMS systems cater for all types of applications.



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# Safety Features

Aquatec's Fibreglass Pump Station designs have received recognition from WHS Industry Bodies, Water Authorities and Councils for setting new standards in safety and serviceability.

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

Our product designs have dramatically reduced the likelihood of accidents by incorporating external maintenance and access methods.

#### External Maintenance Access

Aquatec's Fibreglass 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 one-piece designs have the optional Integral Valve Chamber available to decrease installation time, reducing the excavation period required during installation.

#### Access Covers

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.

#### **Engineered Lifting Points**

Aquatec provides Rated Lifting Points in each Pump Station to ensure safe installation.





# 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.

#### 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.

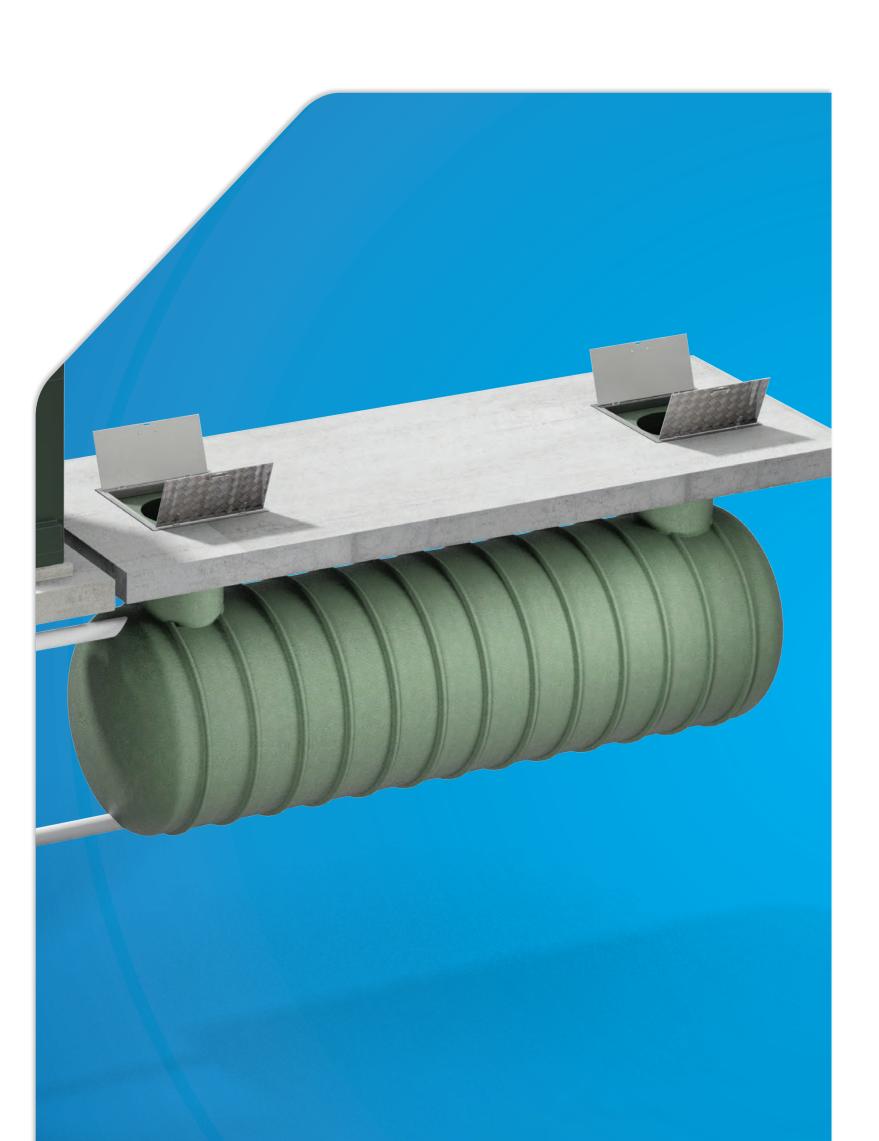
Our Technical Consultants can advise on landing depths and sizes in accordance with WHS safety requirements. Aquatec's Ladders are available with non-slip knurled rungs for added safety protection.

#### 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 Fibreglass Pump Station designs in accordance with AS 1657-1992 or Water Authority requirements.







# Fibreglass Storage Vessels

Aquatec's pump stations can also be supplied with emergency storage vessels, providing additional storage capacity to handle critical in-flows.

Each vessel is fabricated as a completely sealed, one-piece unit for ease of delivery and installation on site, eliminating the possibility of ingress or egress and limiting environmental impact.

Our storage vessels are manufactured in a controlled factory environment under ISO 9001:2015 standards, and are WSAA appraised.

# 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 Fibreglass 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.

#### **HEADOUARTERS**

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