



Pump Stations Concrete

—
Built under ISO9001
Quality Management System
WSAA Appraisal No. 1011
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
-  Qualified Electricians
-  Project Management
-  Power Management
-  Procurement Officers
-  Quality Assurance Audits
-  Craning & Excavation Briefs
-  Pre-testing, Commissioning & Compliance Checks
-  On-site Installation Training
-  Scheduling & Management of Final Testing & Commissioning
-  On-site Delivery Supervision
-  Accredited Operation & Maintenance Training
-  Guaranteed Seal Integrity
-  After Sales Service & Warranty
-  Qualified Mechanical Fitters

System Design

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

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, atmosphere, 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





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

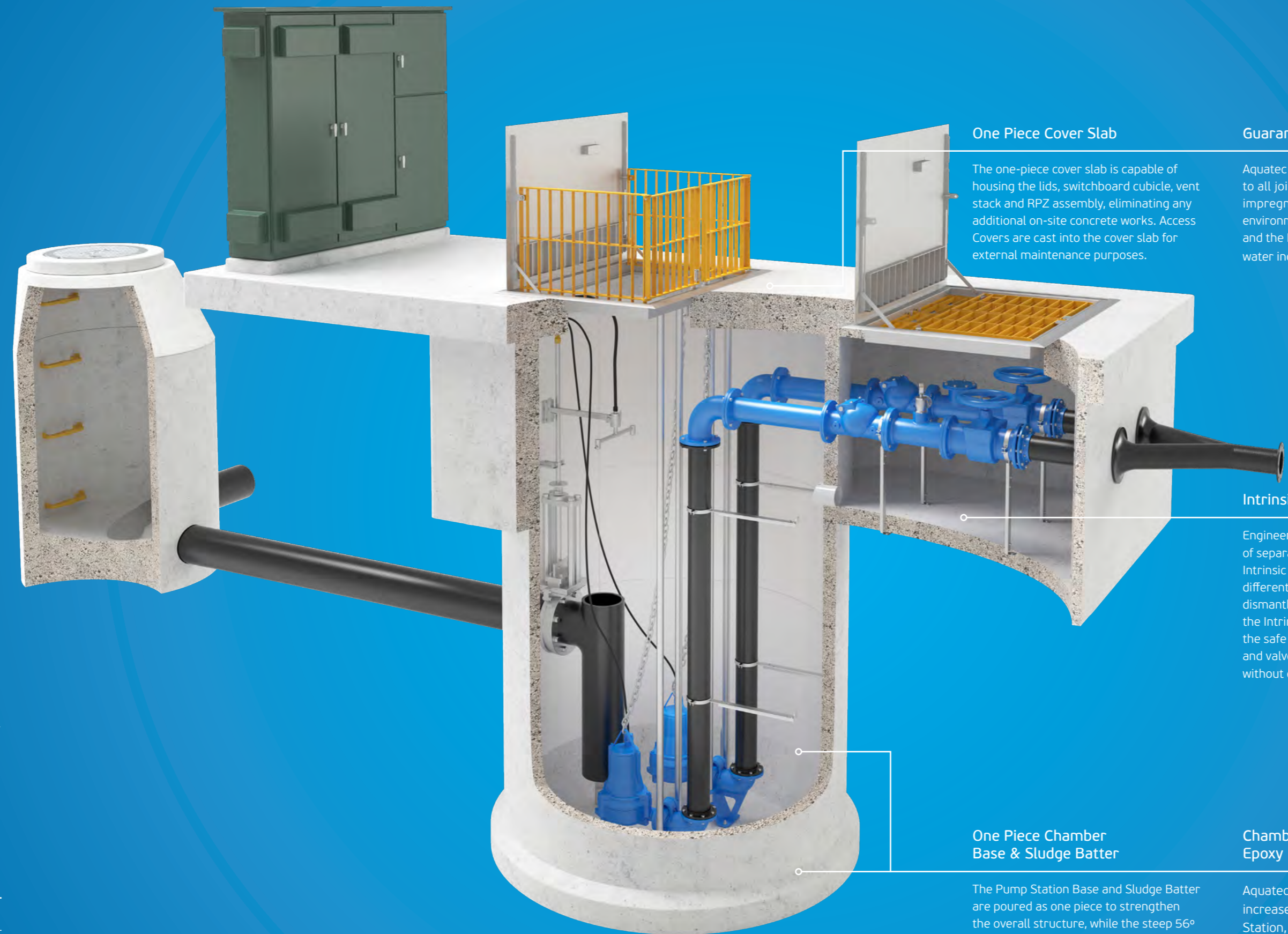
Aquatec's Concrete Pump Stations are manufactured in a controlled factory environment under strict ISO 9001:2008 standards. Proprietary mould designs are precast and manufactured to exact specifications. Unlike cast in-situ Pump Stations, our product quality is not subject to weather, site conditions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

Quality Control

Aquatec 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:

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





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.

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.

Mould Formed Construction

Aquatec's Concrete Pump Stations are mould formed to deliver an impervious finish with a minimum concrete strength of 50MPa. Special mix (S50) cement and a hard steel-moulded finish ensures consistent cover over reinforcement.



Intrinsic Valve Chamber

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

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 Chamber Base & Sludge Batter

The Pump Station Base and Sludge Batter are poured as one piece to strengthen the overall structure, while the steep 56° Sludge Batter is shaped to prevent solids build-up, eliminating dead areas behind pump pedestals.

Chamber Coatings Epoxy

Aquatec's H2S resistant Epoxy Coatings increase the lifespan of the Pump Station, enhance visibility and produce a non-stick surface to prevent build-up of solids on wet well walls and floors.

Chamber Coatings HDPE Liners

Aquatec's H2S resistant HDPE (High Density Polyethylene) Liners lock into all concrete surfaces for protection against corrosive gases and provide longer life to the Pump Station.



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 Intrinsic Valve Chamber requires less space in the overall design, resulting in a smaller environmental footprint. Every Concrete Pump Station design considers a provision for additional storage vessels to safeguard the environment against the potential risk of effluent overflow.

Product Range

Model Number	Internal Diameter	Integral Valve	Increment Size	Max Depth (m)	Capacity Per Extra M/Litre
PPM1	1800mm	1200 x 1200mm	315-1000mm	20m*	2500L
PPM2	2250mm	1500 x 1500mm	300-2500mm	20m*	3950L
PPM3	3200mm	2200 x 1800mm	500-2500mm	20m*	8000L
PPM4	3600mm	N/A	750-2500mm	20m*	10000L

*Deeper available on request



Concrete
Pump
Stations



Telemetry, Monitoring & Control Systems

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

Pump Controls

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.

Telemetry & Monitoring Systems

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



Concrete
Pump
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Safety Features

Aquatec incorporates advanced safety features into the design of every Concrete 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 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

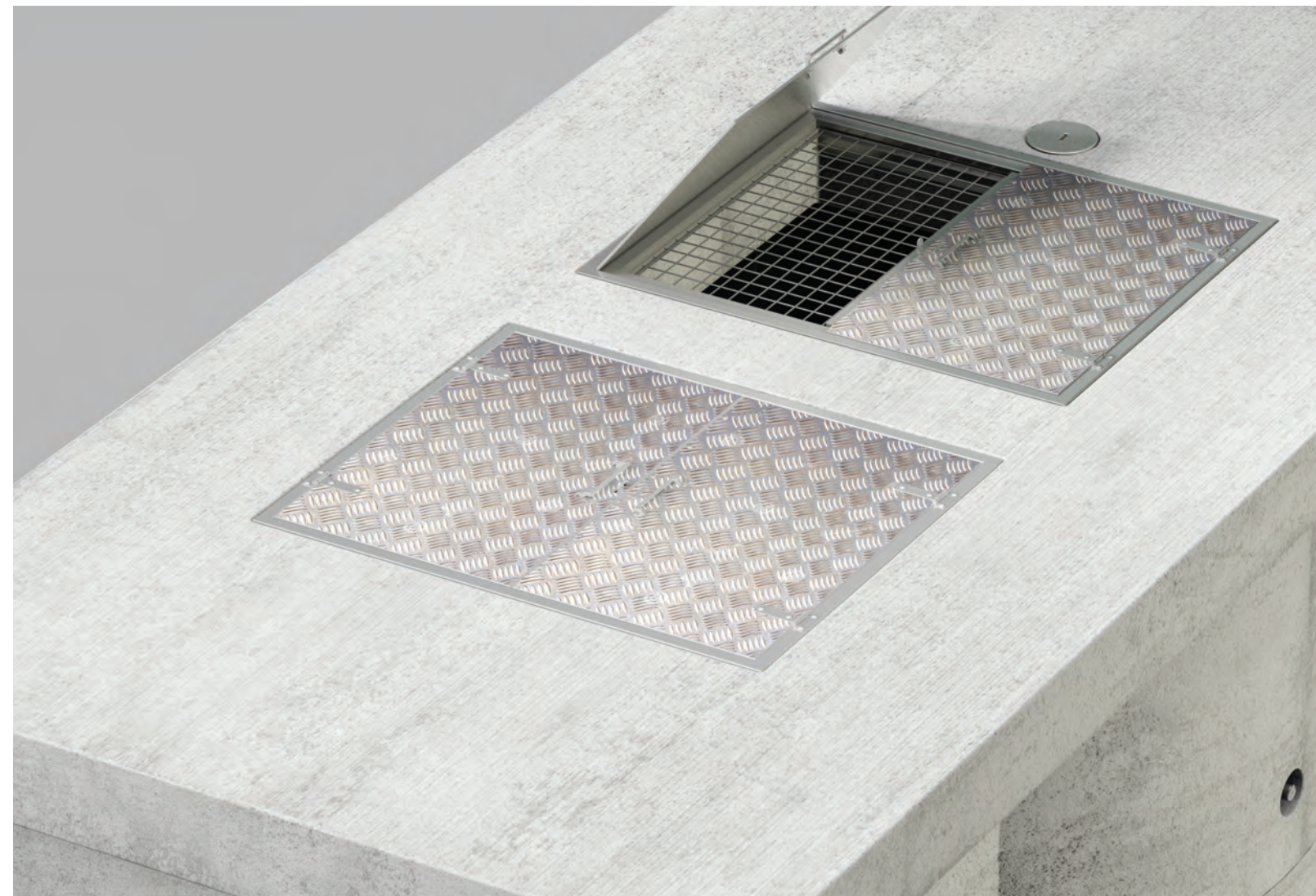
Site excavations are often left unnecessarily exposed for long periods of time, presenting serious safety risks for installation personnel. Aquatec's modular Pump Station designs feature rotational locating keys on each segment and one-piece Integral Valve Chamber increments to decrease installation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

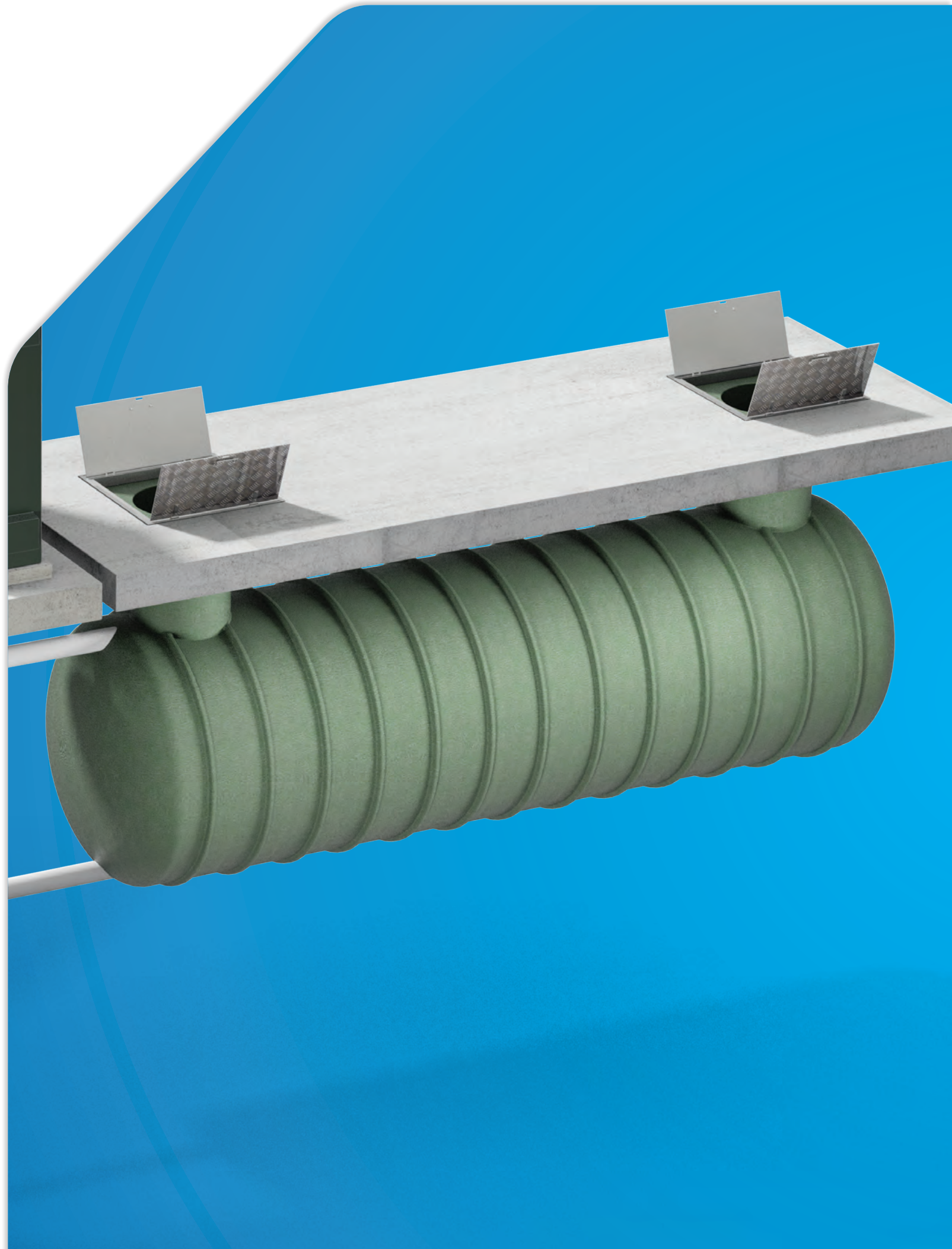
Available in 316 stainless steel, galvanised, powder coated, or glass reinforced plastic, Aquatec's Access Ladders and Landings are incorporated into product designs where internal well access is required.

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.





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 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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