Company Capability

Statement

2024

AQUA ENERGY
— GROUP —

WATER MANAGEMENT EXPERTS

aquaenergygroup.com.au

Our **History**

Aqua Energy Group is a specialised engineering, construction and asset management contractor that is positioning to be a major provider to the Renewables, Civil Infrastructure, Resources and Utilities Sectors across Australia and New Zealand.

Whilst our team has derived from previous company transactions, Aqua Energy Group was formed in 2017. Our reputation for delivering complex, innovative solutions to the market continues to grow and our strong forward projections ensures we will continue to attract the best employees through our integral involvement in challenging projects.

We value our people and place the strongest emphasis on safety being our no. 1 priority. We value our customers and commit to maintaining compliance to all relevant Australian Standards. This ensures an on-time, quality solution to meet expectations each time they partner with Aqua Energy Group.

Our Head Office is based in Cameron Park, Newcastle at the end of the M1 Motorway at the base of the Hunter Valley and is supported by satellite offices in Sydney, NSW, Perth, WA and Mackay, Queensland at this point in time. This provides direct access to the followingsectors for our modular packaged solutions:

- Renewables used as an alternative power source in remote regional locations.
- Civil Infrastructure growth of the capital cities and the growing urban sprawl of the Central Coast and Wollongong.
- The Resources of the Gunnedah Basin, Hunter Valley and the Inland Areas in between.
- Utility works across the state.
- Extensive reach for Maintenance and Repair works to ensure Aqua Energy Group monitor and control the whole life cycle of our solutions.

Aqua Energy Group takes a customer direct approach to project delivery, rewarding and encouraging innovation right across the workforce.

This provides the support and growth of our high quality projects, which also assists in the development of specialist, multi-disciplinary teams across our specified market sectors.

1995
Hunter Pumps was formed from the Thompson Family

2014
Aim Power Solutions was purchased

2017
Aim Power and Hunter Pumps joined to become Aqua Energy Group

2021
Hunter Pumps was sold as separate identity

Aqua Energy Group continues to review the market for opportunities to grow and develop

Our Core Areas of Supply

RENEWABLES

At Aqua Energy Group, we believe in sustainability, and through our pre feasibility design we can best determine an optimised solution to meet the clients budget and requirements. By leveraging our technical competence in handling hydroelectric, wind, and solar projects, we excel at delivering customised solutions to our clients.

Aqua Energy's Group renewables service line offers an integrated approach to the complete renewable energy water management lifecycle. Whether you need a solar-powered pump station or you want to add a mini hydropower plant to your power system, our renewables service delivers to the needs of even the most demanding project specifications.

CIVIL & INFRASTRUCTURE

Aqua Energy Group delivers custom civil and infrastructure solutions globally, including turn-key project design, supply, installation, commissioning, and ongoing maintenance.

Underpinned by our diverse and extensive experience within the civil and infrastructure industry working with civil, tunnelling, engineering, councils and water corporations to solve their onsite project challenges.

From the fast delivery of a drought relief water infrastructure project to installing a vent fans facility in a challenging remote location, our commitment to delivering complete turn-key engineering requirements to our clients is unwavering.

RESOURCES

Aqua Energy Group helps customers in the coal and precious metals mining operations sector to maximise water resource value through customised, engineered water and electrical solutions. Our solutions cover all areas of a mining operation, from dewatering through to reagent plants and water treatment plants.

Whether it is an establishment of a new mining operation or operating an existing one, our engineering and support teams partner with our clients to develop suitable and optimised solutions.

Aqua Energy Group has both extensive experience providing turn-key solutions for Open Cut mining operations including mine-spec fire pumps systems, dewatering pump stations (fishtanks), and dewatering bore pumps installations.

UTILITIES

Whether the project is for a water, power or gas utility Aqua Energy Group's turnkey product solutions can provide the best fit for the specific customers applications. Ranging from large water transfer stations using a combination of overland and underground piping and valving to site water management for modular fire booster systems custom build at our Cameron Park Facility our team can design, develop and deliver your requirements.

Should the project be a site issue that needs attention to a full turnkey project Aqua Energy Group can provide a customised solution.

MAINTENANCE & REPAIR

At Aqua Energy Group we are backed by a comprehensive range of pumps and spare parts so you can be confident that we will find a solution to suit your needs.

Whether it is for an urgent onsite call or service from our warehouse, our competent service team is dedicated to providing economical repairs or replacements. Our fully equipped workshop with testing facilities is available to solve all your mechanical plant repair and maintenance requirements. Providing solutions and satisfying your demands for decreased downtime, while getting you back on track without delay is our forté.

Solution Based Outcomes

Aqua Energy Group always look to support our customers with the best innovative solution possible. This traditionally means the less exposure to a mine site the greater the chance of completing the project on time, mainly due to delays caused by:

- Weather,
- Site restrictions,
- Labour allocations and
- Suitable plant availability.

To enable this to occur AEG packages each solution into a modular based system which can take the form of customised sheet metal enclosure or shipping container, a fire rated switch room or dedicated outcome which could include pontoons or other specific design required outcomes. These modules are typically components of similar projects that when joined together form a group of pre-known working units ensuring a high level of design performance being guaranteed prior to the final testing phase, with only minor adjustments required.

Customers are encouraged to witness the development of the construction of each modular and provide feedback during the workshop inspections ensuring a strong working relationship throughout the project with the customer eliminating the possibility of mixed expectations when equipment arrives at site, all site specific requirements can be discussed and included as the project develops should they not be clear in specification documentation provided. Some equipment is implied but not specified leaving a gap in expectations - this is overcome with workshop inspections during the process.

With each package modular in form, the majority of the solution can be assembled and pre-commissioned in AEG workshop with testing facilities that enable full functional hydro-static and power system testing ensuring when the units arrive on site that are fully functional and to the customers expectations.

Features

- Modular approach reduces site footprint
- Has the ability to control delivery as it is not exposed to the possibility of wet weather
- Available in an external finish to match the surroundings
- Constructed in a workshop environment, off site

Benefits

- Customised to each specific application
- Fully pre-commissioned before arriving on site
- Customers expectations have been meet during workshop inspections
- Typically has shorter delivery times, improving the customers return on investment

CASE STUDY: Wambo United Coal Mine

Modular Fire Pump Station Project

PROJECT
Modular Fire Pump Station

INDUSTRY
Mining

LOCATION
Hunter Valley, NSW Australia

EQUIPMENT
1X complete modular fire pumpstation, 2 X large 500kl storage fire water tanks & all associated interconnecting Pipework & Electrical works

DURATION
9 months

VALUE
$1 Million

Aqua Energy Group were engaged to design, supply, install & commission a complete Turn-Key Fire Protection Plant for the UG Coal Mining Industy.
This Project incorporated the complete Design, Supply, Installation and Commissioning of this package which incorporated a complete modular fire pumpstation & Water Supply Pumpstation and incorporated the supply & installation of 2 X 500KL Fire Water Tanks , all civil requirements, all Electrical Requirements, and all mechanical requirements to facilitate a complete Turnkey package all to MDG15 Requirements.

CHALLENGES
Aqua Energy Group was able to navigate very strict environmental requirements , an operational mine site and tight timeframe for the customer to get their new UG Fire Water Modular Booster Pumpstation up and operational.

Water Management

From augmentation of existing systems to the implementation of new infrastructure in a turnkey project, Aqua Energy Group can provide a tailored solution to exceed customer's requirements.

With a focus on modular systems, AEG can provide solutions for:

- Water treatment using dosing, filtration, aeration and other suitable methods
- Reclaim water
- Water storage
- Fire water management
- Interconnecting pipelines/switching stations
- Transportation of water including booster pump stations
- Above and under ground mining dewatering systems (eg fishtanks for underground works)
- Slurry management for contaminated water

Power for the system can be direct from the supply network via isolator/ circuit breaker or feed from a localised source, with switching, monitoring and control being modularised into a packaged switch room for operator access and functionality.

Water storage and collection can be used to redirect water flow based on valve switching and staging requirements of the plant. Pumping stations are used to ensure the water flow meets performance guarantees of the system.

Features

- Integrated solution to meet customer specifications
- In-house industry experienced management and design team
- Best fit for purpose equipment based on industry experience
- Focus on return on investment for the customer

Benefits

- One point of contact for the turnkey project
- Workshop construction and testing where possible
- Customer involvement encouraged
- Customised solution, not altered from standard product range

CASE STUDY: Nyngan
Water Storage Project

PROJECT
Water Storage System

INDUSTRY
Local Council

LOCATION
Nyngan, NSW Australia

EQUIPMENT
An in-ground water Storage System, Pipeline from storage to bogan River, New Pumping Station, and Associated Equipment Including Power Supply.

DURATION
6 months

VALUE
$1 Million

Partnering with our client, Aqua Energy Group were able to supply and install all Electrical and Mechanical Materials, Plant and Equipment for the construction of a 700 Mega Litre in ground storage facility for our clients in Nyngan, NSW.

Aqua Energy Group were able to complete the final commissioning and hand over of the project, on time and on Budget.

CHALLENGES
Challenging Rural Location for transport and logistics.

Water Treatment

Aqua Energy Group is an industry innovator offering a turnkey solutions for water treatment applications. Aqua Energy Group can provide fully engineered water treatment, pumping and water management systems that are customised to each customer's project specification.

AEG prides itself on selecting the most unique innovative design and cost-effective solution for any water treatment application using traditional techniques and clever innovative in-house engineering, complimented by our extensive range of vendor partners to build each solution. This enables a modular approach to be undertaken throughout design and during workshop construction and assembly allowing factory testing as each component is completed prior to delivery to site.

Aqua Energy Group focus on a whole of life cycle for the project, ensuring a well-designed system minimises operational costs and simplifies ongoing maintenance requirements.

Typical solutions of water treatment offered include:

- Treating surface water for use on site
- Treating wastewater for compliant disposal to the environment
- Selective removal / recovery of contaminants or minerals
- Vehicle and plant wash bay systems

Features

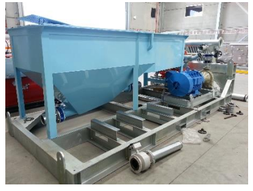
- Modular design components reduce installation time on site
- Proven components ensure system compliance
- Vast range of vendor partners ensure delivery expectations
- Available in stainless steel construction for harsh environments
- Minimum of IP55 protection on all outdoor component's

Benefits

- Reduced construction time provides a quicker return on investment
- In-house engineering provides innovation to current designs
- Very low operational costs and limited maintenance items
- Most systems are fully tested in a controlled workshop environment with customer interaction
- Ensuring minimal rework (if any) on site during installation

CASE STUDY: Ulan West

Underground Dewatering Station



PROJECT
Underground Dewatering Station

INDUSTRY
Mining

LOCATION
Ulan West, NSW Australia

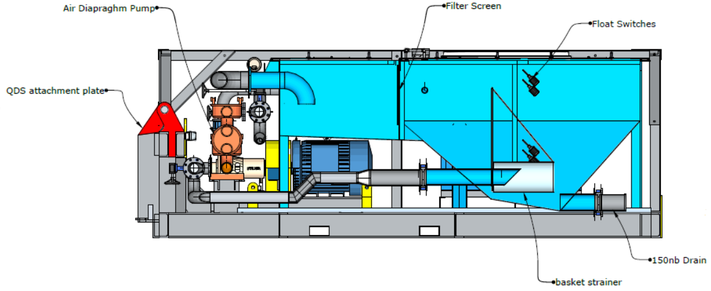
EQUIPMENT
Complete Engineered QDS Underground Dewatering Pump Station, Including all Mechanical and Electrical Requirements.

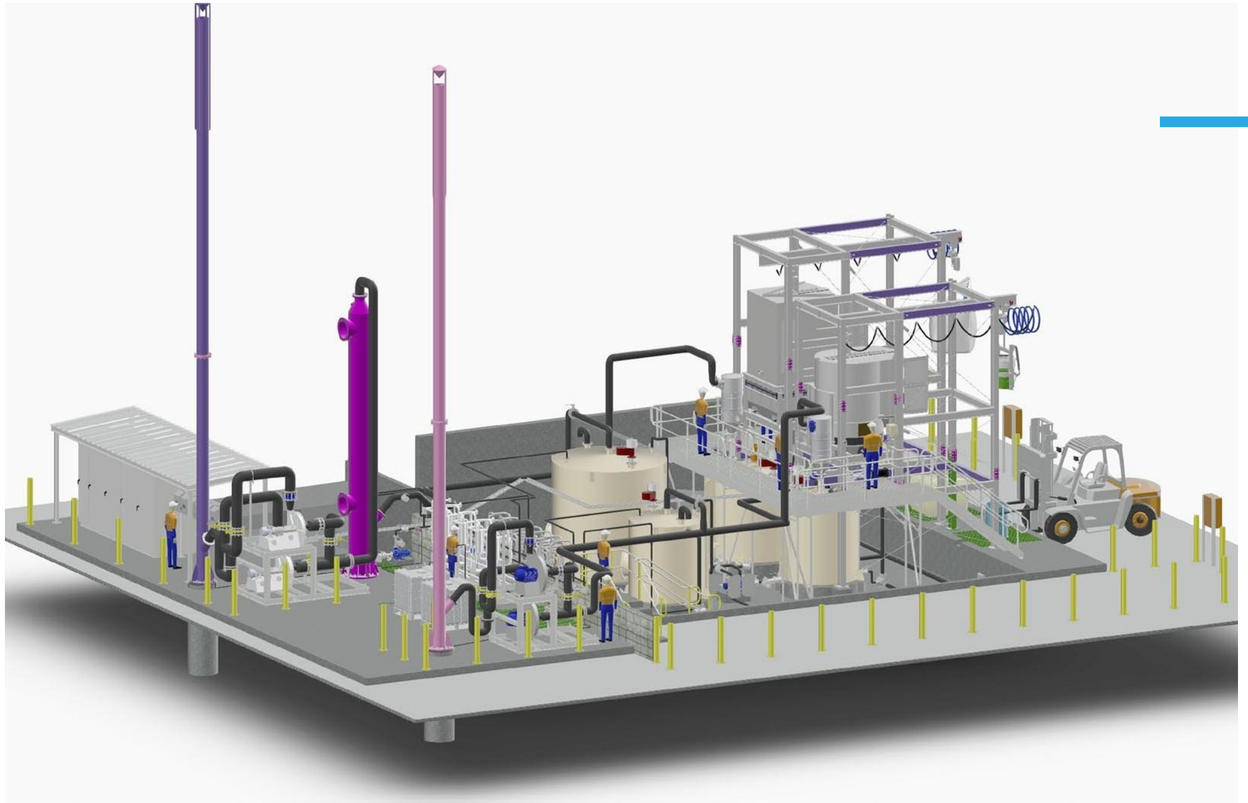
DURATION
12 Weeks

VALUE
$1.7 Million

Aqua Energy group was contracted to design, procure and manufacture underground dewatering equipment based on client documentation issued by the end-user. The five underground stations are to be situated in the underground coal mine and engage in dewatering the underground coal mine. The system is controlled by site telemetry and powered by an Aqua Energy Group type stations tested underground approved controller. The project is now tried and tested with the client very happy with the overall outcome and durability of the product.

CHALLENGES
Aqua Energy Group was able to navigate very strict Timeframe and Budget with a highly engineered solution to meet clients high expectations.





Reagent and **Flocculent** Plants

A reagent plant system allows you to perform your mining operations without being solely dependent on a tailings dam. Using a reagent plant modernises your processes, allowing you to carry on with your project in a smoother, safer and more cost-effective manner. Each mine has a prep plant and a thickener tank and a reagent plant is an add on to this process. So instead of the fines going to a tailings dam they go into a thickener tank and then get treated with reagent solution.

Fines are then collected and returned for reuse which:

- Reduces cost
- Maximises soluble metal recovery
- Increases process throughput

Maintaining recovery, ensuring availability and sustainability while keeping costs under control is challenging. Our customised flotation solutions maximises your return on investment by enabling gains in throughput, grade and recovery, with minimised environmental impact.

The use of a reagent or flocculent improves the efficiency of recovering the mineral and facilitates efficient process or water recovery. Reagent plants are used wherever an additive is required to cause either a mineral or a waste product to settle out or float in the process or the water circuit. Water recovery operations often tend to lose or waste costly reagents due to the use of inefficient, ill equipped or make-shift preparation plants.

Each and every flotation operation is unique and when you choose AEG solution as your service partner, you are partnering with an organisation that is committed to understanding the precise needs of your processing plant to function smoothly and efficiently.

Features

- Efficient compact layout minimises the total footprint
- Very high process and operational availability with no loss of production
- Liquid and powder processes available
- Available in stainless steel construction for hostile environments
- Interlock protection for all critical components

Benefits

- Fully automated
- Very low operational costs and limited maintainable items
- In-house engineering and fabrication with trail pre-erection and assembly ensuring fluent site assembly with limited site work
- High quality paint specification, internally and externally for maximum practical life of equipment

CASE STUDY: Mt Owen

Reagent Dosing Station

PROJECT
Reagent Dosing Station (Dosing Pumps)

INDUSTRY
Mining

LOCATION
Hunter Valley, NSW Australia

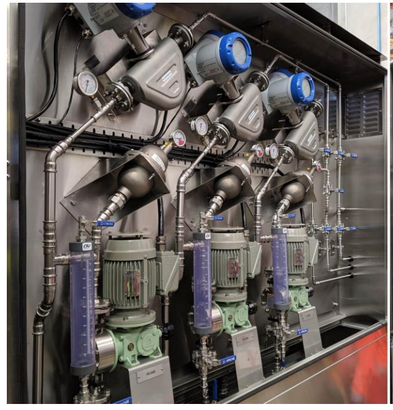
EQUIPMENT
2x Double- sided, Custom Designed dosing pump cabinets for hazardous and Non-hazardous fluids, 1x motor Control cabinet

DURATION
9 months

VALUE
$1 Million

This Project utilises two pump cabinets with hazardous – rated and standard dosing pumps to pump set amount of liquid into the thickening plant on site. These cabinets are accompanied by a customised swithchboard for full operation of the units. Each pump is capable of pump diesel fuel/MICB Solutions at a flow rate of approximately 0.5l/min-1/41/min.

CHALLENGES
Aqua Energy Group was able to navigate very strict environmental requirements and tight timeframe for the customer to continue current operations.



Borehole Pump Solutions

Mine dewatering using submersible borehole pumps is an efficient, low maintenance and reliable method to dewater an underground mine as they are not affected by underground constraints such as ventilation, power outages and inspections by personnel. Borehole pumps are usually remotely located from main surface infrastructure, and as such are fully automated.

A correctly sized pump and motor, with a carefully designed underground sump, can dewater and control underground mine wastewater without the need to have underground personnel or large infrastructure installed underground.

Careful positioning of the pump, and a sump designed to maximise water storage capacity can provide a cost effective way to collect mine water by using gravity to drain the mine without the need for multiple underground pump installations to be installed.

Borehole pumps are typically vertically mounted within the drill hole casing. In remote areas without power, borehole pumps can be powered by diesel engines and smaller pumps can be solar powered.

Features

- Can be electric, diesel or solar driven
- Stainless steel for abrasive applications
- Capacity of up to 400 litres per second
- Robust design for remote locations
- Turnkey package offered
- Head pressures of 500 + metres
- Ex.d installations available

Benefits

- Fully automated solution
- Low maintenance installation
- Reliable dewatering option
- Cost effective solution

Pontoon Pumpstation Solutions

Our pontoon pump-stations are fully marine engineered, mine compliant, safe, compact and modular, low-weight, tested and commissioned prior to dispatch, and built to Australian and International Standards, to increase the operational lifetime of each pump station.

Designed for dewatering, flood control, dredging, sludge removal, irrigation and water supply capabilities for tailings dams, water storage dams and even rivers. Pontoon pump stations offer significant economic, environmental and efficiency advantages, not only are they cost-effective, they are also lower maintenance, site relocatable and lower risk of dam unauthorised overflows.

Constructed to the highest quality standards, our pontoon pump-stations can be fitted with our wide range of specialised pontoon mounted pump systems including submersible dewatering pumps, self-priming diesel and electric dewatering pumps, surface dewatering pumps, centrifugal pumps, column pumps, slurry pumps, fire pumps and more.

Features

- Reduce suction lift requirements
- Allows for a greater range of available pump congurations that can be used
- Can be built with integrated fixed jetties, gangways, walkways, bridges, and many other access options
- Full turnkey option available

Benefits

- Relocatable systems
- Systems that can be manufactured from a variety of non-corrosive materials to suit any environment
- Reduction of operational costs
- Low maintenance
- Increased reliability

CASE STUDY: NSW Water

Utilities Drought Relief

PROJECT
NSW Water Utilities Drought Relief

INDUSTRY
Infrastructure

LOCATION
Inland, NSW Australia

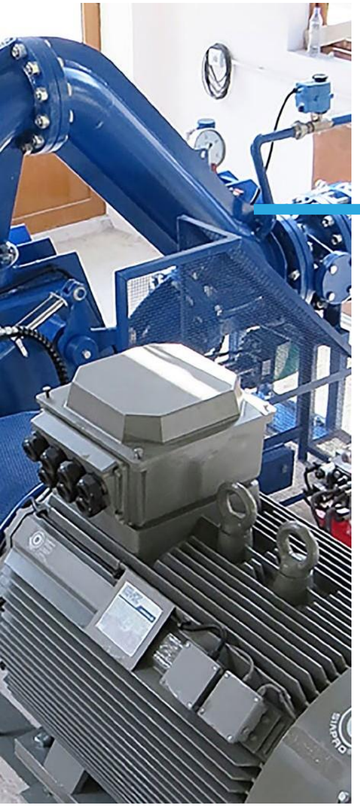
EQUIPMENT
Containerised Switch rooms, 415V MCC, 2 x pontoons, 6xpumps @660L/s each, Pipelines/ Valving.

DURATION
6 months

VALUE
$3.8 Million

The Project Included the Design, supply, and delivery of two pontoons delivering up to 300ML a day of Freshwater to a coffer dam arrangement. The Project also consists of a 415V Containerised Switch room, heavy-duty trailing cable, and a flexi DN600 pipeline arrangement for the two pontoons. This project was a full D&C by the Aqua Energy Group Engineering team.

CHALLENGES
This Project was won by Aqua Energy Group on the merit that we could supply a complete drought relief package in a short time frame. We are proud that we could not only deliver the project in the time frame specified, but we were also able to use all Australian made products.



Hydro Power Modules

Aqua Energy Group are now able to assist with your next mini/small hydro power plant project. Designed to meet all Australian Standards, our hydro power plants offer a highly efficient water turbine with low operational costs. These systems ensure high life expectancy with high quality steel and casing and can be installed horizontally or vertically.

Aqua Energy Group are able to offer a highly efficient water turbine with low operational costs and a highly engineered system to suit your next project.

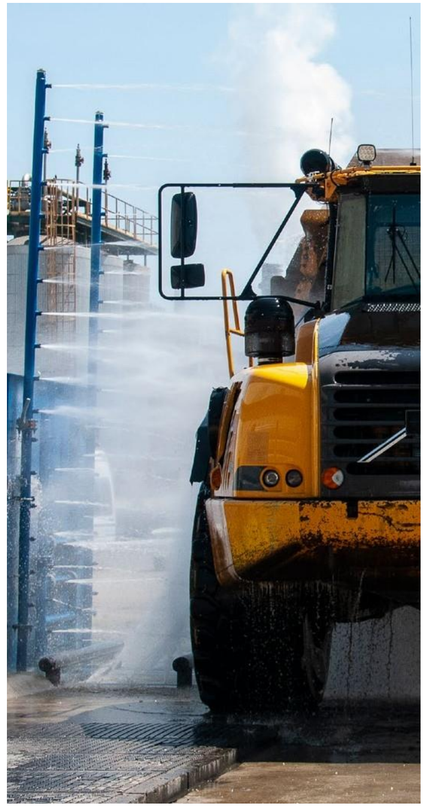
Our hydro power plants consist of all necessary equipment for the automated operation of the plant, including all control systems which are designed to the highest of standards.

Features

- Fully turnkey engineered solutions - coupled with turbines, generators etc
- Low operational costs
- Containerised solutions available
- High efficiency - 85 to 95% typical
- Horizontal or vertical designs
- Complete automated operation
- Modular or fixed plants available
- Approved to Australian Standards

Benefits

- Provides power to adjacent equipment free of charge
- Increases opportunities to develop infrastructure in remote locations
- Modular units are customised to each application ensuring optimum efficiency
- Fully automated solutions, ideal for remote locations
- Excess power can be returned to the network for revenue return



Vehicle & Plant Wash
Demucking Systems

Aqua Energy Group has a strategic alliance with Frutiger Company AG to offer a wash system with over 30 years' experience, 6000 installations in over 72 countries.

Continuous improvement of the system provided the next step – demucking system. A concept based on recoverability, washing performance, and individual customer needs. The demucking system is one of the most modern and high-quality vehicle and plant equipment washing system in the world. It can be perfectly tailored to customer needs in terms of washing performance and water recycling.

The design of the wash unit and water recycling depends mainly on the vehicle type (external dimensions, chains or wheels, contours), the number of vehicles to be cleaned, and the degree of soiling.

For companies that have to clean construction machinery every day, this demucking system is a worthwhile return on investment.

Aqua Energy Group offer a turnkey solution to our customers, however should they choose to complete a specific portion of works this can be accommodated as well. Our team of project managers, multi-disciplined engineers and site installation and commissioning technicians are here to support a mutually beneficial outcome.

Features

- Full under chassis wash
- Fresh water rinse
- Extended drip pad
- Manual/timer/remote operation
- Recycle tank - conveyor clearance option
- Flocculant system
- Australian Standard & mine compliant
- Options range from light to heavy vehicles/plant

Benefits

- Improved turnaround for plant hire
- Clean equipment prior to servicing/repair works undertaken
- Removes risk of vehicle vibration due to mud build up around steering mechanism
- Ensures EPA and local governance requirements are completed
- Maintains image of the company and improves driver ownership

Pump Systems

Fire Pumps

Recognising the growing demand for fire pumps, Aqua Energy Group have developed effective turnkey solutions, which fully comply with the relevant Australian Standards.

Our fire pump sets are available in both diesel and electric configurations and are assembled as fully automated fire solutions, including valves, controls, pipe work and accessories. Our modular designed enclosures are available in single or dual systems, providing protection for your fire pumpset, shielding it from the harsh australian environment and securing it from unauthorised personnel.

Dewatering Pumps

Aqua Energy Group have dewatering pumps suitable for any application, including surface dewatering pumps, dewatering pods, submersible dewatering pumps and underground dewatering pumps (fishtanks).

Submersible dewatering pumps are low weight and have a compact design for convenient transport, handling and installation. The plug-in start enables quick connection on site with motor protection eliminating the risk of overheating. The modular design with interchangeable spare parts makes servicing easier and increases flexibility of sites future requirements.

Centrifugal Pumps

Aqua Energy Group's centrifugal pump units come in a variety of configurations and sizes to suit your application. Centrifugal pumps are the most used pump type in the world. They are robust, effective and relatively inexpensive to produce.

They are used to transport fluids by utilising kinetic energy to increase flow rate efficiency. The impeller accelerates the fluid to assist with the rapid outflow to the desired flow rate. They are used in a range of industries and for a variety of applications including: water tansfer and boosting

Underground Dewatering Fishtanks

Aqua Energy has developed a turn-key solution of underground dewatering fishtanks.

With in-house design and manufacturing capabilities and the flexibility to suit individual mine site requireents, these dewatering systems are the perfect solution for your underground mine that has a tried and tested long life span.

Others

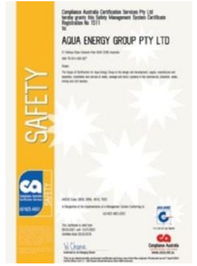
Aqua Energy Group can combine and utilise any pump combination to suit vastly wide range of applications and could include the following types:

- **Gear Pumps**
- **Helical Rotor Pumps**
- **Plunger Pumps**
- **Solar Pumps**
- **Submersible Pumps**
- **Slurry Pumps**

Certifications

ISO9001:2015
Our Quality Management Systems (QMS) meet the highest international standards in servicing customer needs.

ISO 14001:2015
Our Environmental Management Systems (EMS) qualify as meeting globally-recognised environmental protection protocols.



AS/NZS 4801-2001
Our Occupational Health and Safety (OHS) Management Systems comply with rigorous standards set by Australian and New Zealand OHS agencies.

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WATER MANAGEMENT EXPERTS

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