



# Correctional Water Management



[avac.com.au](http://avac.com.au)

## Meet Our Team

Founded in 1996 to serve a growing market for vacuum drainage and commercial water management systems in Australia and New Zealand, Avac Australia has gone on to become one of the most prolific and well-specified names in the industry.

Avac now engineers a variety of environmentally friendly plumbing, conveyance, disposal, drainage, and waste collection systems. Our solutions are operational in projects across the continent in applications ranging from Correctional to Commercial.

### Notable projects include:

- Capricornia Correctional Centre, QLD
- Biobank - RPA Hospital, NSW
- Bendigo Law Courts, VIC
- The Kings School, NSW
- Optus Stadium, WA



For those interested in seeing these systems in action, **the Avac Group operates a Research, Development and Demonstration Centre in the southern suburbs of Brisbane.** Fitted with the latest and greatest in vacuum drainage and water management, it enables all manner of facility owners, architects, engineers, and other professionals active in the space to get a better grasp of the how vacuum drainage and Electronic Water Management Systems work.

Talk to your local Avac Australia representative or email [info@avac.com.au](mailto:info@avac.com.au) if you wish to learn more.



# Electronic Water Management Systems

In the current climate of rising utility prices, frequent water restrictions and regular changes to correctional standards, Electronic Water Management Systems [EWMS] have become must-haves in new and redeveloping projects. By implementing an efficient EWMS, you can look forward to:



## Increased Flexibility and Control

Restrict water delivery by time, *i.e. showers can only be operated for 'X' minutes per day*, or number of operations, *i.e. toilets can only be flushed 'Y' times per day*.



## Reduced Water and Energy Usage

Following the introduction of Master-Trol™ water management systems, some correctional facilities have seen their water consumption per inmate be reduced by more than 75% and their energy usage by up to 90%.



## Immediate Lock-Down

Water can be shut off at the click of a button, preventing the last-minute disposal of contraband prior to an inspection.



## Data Logging

With every valve activation recorded and easily accessible, complaints and litigation concerning denial of water can be readily resolved.

### Typical Master-Trol S3 Installation



# Master-Trol™

Making the best even better with Australian ingenuity.

For over 20 years the original Master-Trol™ system has been successfully providing operators across Australia and New Zealand the perfect platform to monitor and maintain control over water usage, reduce costs and reduce water wastage in correctional applications. Now with the launch of Master-Trol+™, this will be easier than ever.

## Multiple cells, one controller

Less lines to run, less controllers to maintain and less complexity. Master-Trol™ Series 3 Controllers can handle up to 18 valves whilst still allowing individual control of each valve. **Master-Trol motherboards can be removed and replaced in under 3 minutes**, minimising downtime and allowing you to always stay in control of your facility.

## Flexible communication and control

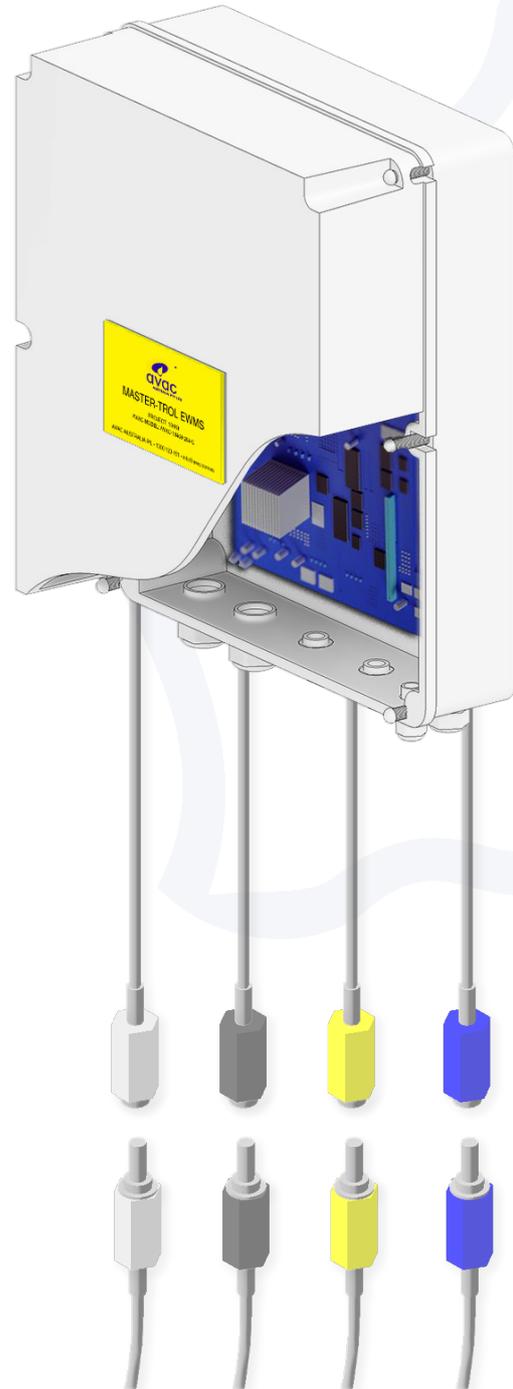
Centralise control of the whole facility to one device or manage each cell at the controller, it's up to you. Master-Trol+™ supports both standalone and communicating configurations, allowing easy integration into both new and existing projects. All controllers can operate in standalone mode, ensuring uninterrupted service in the event that communications are lost.

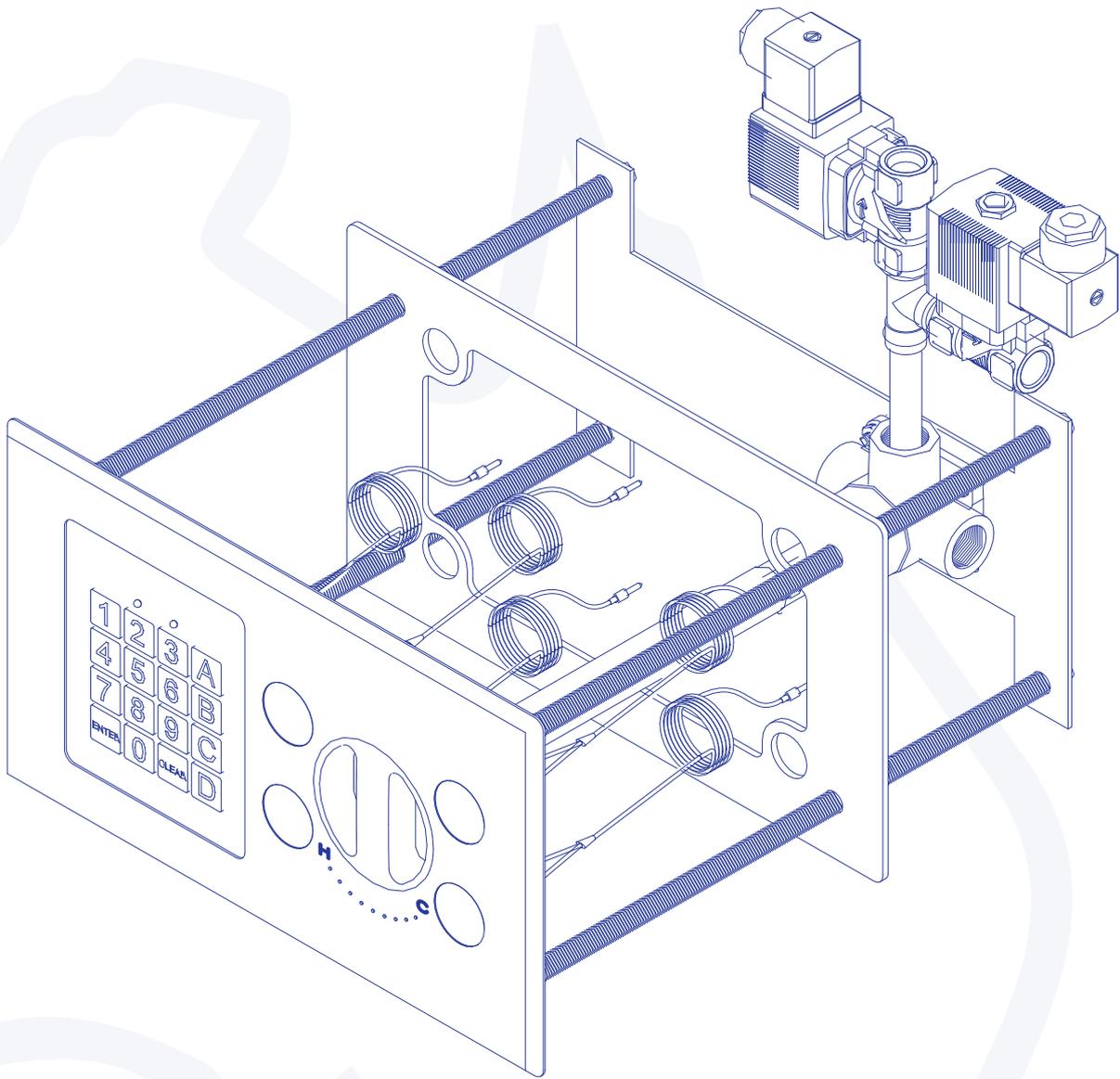
## FasTrak™

Colour-coded and IP rated, our new FasTrak™ cabling system not only saves time and avoids confusion when an EWMS is being installed but prevents the chances of a cross-connection occurring. Not only do they reduce CAPEX but minimise OPEX as they are connected quickly and easily.

## Intuitive GUI

A simple, customisable Graphical User Interface (GUI) is essential to ensure you get the most from your Electronic Water Management System. The Avac Australia system allows you to easily draw insights and identify patterns of behaviour with site specific dashboards, menus and floor plans and can be set up for both mobile and desktop platforms.





## Proudly Australian made,

Avac Australia's Nullarbor and Coolum-series correctional tapware is unmatched in its class with heavy-duty stainless steel construction, supreme ligature resistance and with a variety of additional actuator options available.

## Hardwearing & Durable Fixtures



Nullarbor Series  
Tapware



Coolum Series  
Tapware



Piezo & Touch-  
Free actuators



Combys & Stainless  
Steel Fixtures

## Lotus Glen Correctional Centre, QLD

EWMS ✓

EWMS Points: 3500+

Vaccum Drainage ✓

% of water saved: 75%

When the Queensland Government called for the addition of **320 new cells**, they took the opportunity to upgrade all existing cell blocks and shared accommodation to better meet current environmental policy.

This meant rolling out a fully networked electronic water management MasterTrol™ system supported by vacuum drainage fixtures that allowed the facility to **significantly increase the inmate population whilst reducing the volume of water used** on-site whilst saving on hot water OPEX cost.

The end result met the client's objective of significantly reducing water consumption and sewage throughput, with water consumption by inmates **reduced in excess of 75%**.

## Biobank - RPA Hospital, NSW

EWMS ✓

Collection Points: 23

Vaccum Drainage ✓

Max Continuous Flow: 75%

A state-of-the-art research and storage facility, the Royal Prince Alfred Hospital's Biobank was completed under tight timeframes whilst observing specialised waste handling requirements for accumulated laboratory waste.

Due to its location on top of an operational mental health facility, the ceiling space on the first floor was not accessible - **making it impossible to install traditional gravity drainage**. Avac Australia instead installed a full vacuum drainage and water management solution which allowed operators on site to easily divert water streams to better accommodate other trades on site.

**“We were heavily restricted by access to the ceiling below, so this project could not have proceeded without Avac's Vacuum plumbing design and implementation”**

## Optus Stadium, WA

EWMS ✓

Collection Points: 250

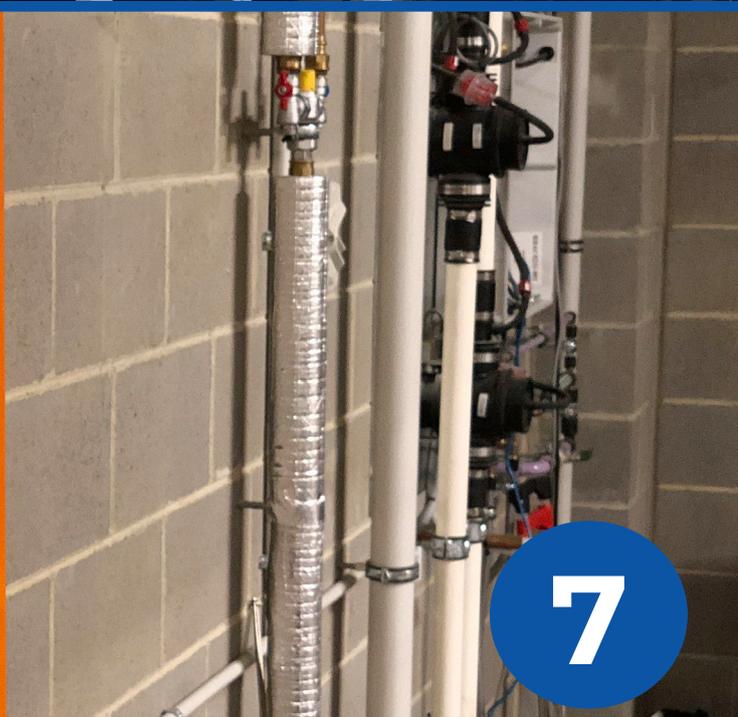
Vaccum Drainage ✓

Max Continuous Flow: 25LPS

Built on unstable, sandy marshlands that are likely to shift over time, Optus Stadium was a complex hydraulic undertaking necessitating the latest in water management technology.

As the pre-existing water supply and waste network was incapable of supporting a facility of this size with gravity drainage, Avac Australia deployed an extremely efficient vacuum drainage solution with fixtures that required **as little as 0.7L per flush**. This solution also employed a piping network that could sit above the slab, making it easier to locate and repair leaks that may occur as the building shifts.

A site-wide Master-Trol™ network was also implemented to allow real-time monitoring and control over every waterpoint in the facility, **utilising the fibre optic comms network that was already being installed.**





## Contact Us

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