

**Waterco Case Study** 

Auto-Tub (Queensland, Australia)

# Protecting equipment and the environment Auto-Tub (Queensland, Australia)

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Ron Dodds, owner Auto-Tub (Qld)

- MULTICYCLONE EXTRACTS AN EXTRA 80 PER CENT OF DIRT BEFORE IT REACHES THE FILTER
- SIGNIFICANT WATER SAVINGS A MAJOR SELLING POINT FOR ECO-FRIENDLY VEHICLE WASH
- CUSTOMER CITES BROAD BAND OF LITERAGE AN IMPRESSIVE FEATURE OF MULTICYCLONE



Auto-Tub's water reclaim filtration system is designed to optimise car wash water usage and is capable of recycling up to 95 per cent of all water used.

# Setting: Environmentally-friendly commercial vehicle wash system

Originally imported from the United States under the name Kwik-Kleen Car Wash System, the Auto-Tub (QLD) vehicle wash system is manufactured in Brisbane, Queensland, and sold throughout the world with over 2000 units in operation.

Owned by Ron Dodds, a metal specialist with over 30 years' experience in the water treatment industry, and his wife Wendy, Auto-Tub is known for producing reliable, environmentally friendly water recycling vehicle washing solutions.

As well as being eco-friendly, Auto-Tub's water reclaim innovations – which are capable of recycling up to 95 per cent of all water used – significantly reduce labour costs for the motor dealers, mine operators and fleet owners who depend on the system.

MultiCyclone is a pre-filtration device that works on the basis of centrifugal water filtration and is designed with no moving parts and no filter media to clean or replace



MultiCyclone pre-filters up to 80% of the filter's incoming dirt load easing the workload of the filter, saving 3,000-litres a week in backwash water.

### Challenge: Reduce high silt and dirt load prior to filtration

In addition to building and installing each Auto-Tub system in Australia, Ron also services them regularly. This allows him to gather valuable data on how they operate and where they can be improved.

"In our system's submersible sub-tank, where the raw water comes out, we found we still had a high silt and debris load," he explains. "This was despite going through a 300-micron bag, and then through a 100-micron bag filter, before passing through our exclusively designed, specially engineered multi-layered media used in our main filters."

A key requirement was a solution that eased the pressure on the filter cylinders with a pre-filtration system - and Ron also needed a product that reduced the amount of backwash water.

"The days are long gone where we're able to pour tens of thousands of litres of water down the drain to wash vehicles," he says. "During the drought period we had 10-15 years ago, I knew we needed a system that enabled our business to still operate during periods of low rainfall while allowing customers to continue washing their vehicles – all while abiding by the parameters set out by local councils and the relevant water authorities."

### Solution: Waterco's MultiCyclone pre-filtration solution

To help reduce the volume of suspended solids in the recycle water loop – thus reducing the load off the secondary filtration polishers – and conserve water, Ron trialled Waterco's award-winning MultiCyclone pre-filtration device. Generating a strong centrifugal effect, it spins sediment out to the hydrocyclone's wall and then spirals it down to the sediment sump, while clean water spirals upwards.

"We've discovered that the MultiCyclone is taking a massive load off the filters themselves – we're extracting an extra 80 per cent more dirt and debris before it gets to the main filters," Ron explains. "On 16-20-inch cylinders, it's probably saving us 3,000-litres a week in backwash water. I am very, very pleased with the product."

By pre-filtering the majority of the filter's incoming dirt load, MultiCyclone reduces the load on the filter, thus reducing the frequency of filter maintenance by up to 80 per cent – all while significantly saving backwash water. And as the MultiCyclone intercepts more and more sediment, the flow rate remains unchanged, improving water circulation.

## Conclusion: An impressive system for a good corporate citizen

With water restrictions a regular occurrence in many parts of Australia, Waterco's MultiCyclone system enables Auto-Tub to provide its customers with tangible cost benefits – without compromising quality.

"In times of tough water restrictions or scarce resources, our customers achieve high productivity with an excellent corporate responsibility by utilising our water reclaim systems to reduce their fresh water consumption," explains Ron.

"Also, a lot of the cyclones have a very narrow band of operation, however MultiCyclone works from 50-500-litres without any change in quality. It's a very impressive system."