



## From poultry, to high WATER QUALITY

### Main Use

To provide clean water with iron and manganese levels in line with World Health Organisation guidelines and to support animal health and comfort.

### Customer

Cobb-Vantress Poultry Farm

### Location

Rotongaro, New Zealand

ACQUA by Davey Water Treatment System must be able to meet the following:

Daily volume required: 300,000L

### PRE-TREATMENT

Iron Levels: Ranging between 8-13 mg/L

Manganese Levels: 0.7 mg/L

### POST-TREATMENT

Iron Levels: Less than 0.3 mg/L

Manganese Levels: Less than 0.1 mg/L

## Clean, healthy water required to enable best possible outcome for \$70 million hatchery

American poultry giant Cobb-Vantress recently constructed a new industry leading poultry facility in the Waikato Region of New Zealand. The facility consists of a \$70 million hatchery and employs up to 75 people. While Cobb-Vantress has a long history, it is known for its industry leading approach to genetics, technology and industry best practice. The new site is located in a remote area of Rangiriri West and has provided an exciting boost to the local economy.

The new site represented a number of challenges for the company, with a key concern being water. The farm needed reliable water supply and the team identified early that clean, healthy water was required to enable the best possible outcomes for the facility.

Iron and manganese represented significant impairment to the water quality with Iron levels ranging between 8-13 mg/L in the bore water and manganese at approximately 0.7 mg/L.

The site needed a dependable supply and Cobb-Vantress wanted to be sure that it was also sustainable.

It was important that the risks that could cause an interruption of clean water supply were carefully calculated and well managed. Any interruption could be very costly financially and also in terms of animal health.

The timing of the construction was also critical, with many complex moving pieces during construction.

..... SOLUTION >>>

At ACQUA by Davey, we understand no two jobs are the same. That's why we have a team of sales engineers and a specialised production department to tailor the system for your needs.



## THE ACQUA by Davey SOLUTION

The ACQUA by Davey solution treats water from a bore, delivering 300,000L of clean water per day to a central storage facility. The system then pumps water via a ring main to decentralised storage and pumping solutions. The treated water boasts iron levels of less than 0.3 mg/L and manganese at less than 0.1 mg/L - in line with World Health Organisation (WHO) guidelines.

The system is coupled to Davey's remote monitoring and control platform which allows us to optimise, support and view complete system operation including pH and chlorine disinfection levels. The radio network of this system means the location of system elements is of little consequence and that all measurements of water are on one easy to use platform. The remote monitoring solution also monitors pump status, water levels, water consumptions and filter loads.

The system utilises cartridge filtration, Ion exchange and chlorine disinfection to achieve the water quality required.

## BENEFITS

Core to the system design was the reliability of water supply. By utilising a ring main, decentralised tanks and decentralised monitoring solution using a cloud-based service there are multiple redundancies in place and rapid notification in the event of early event detection.

## RESULTS

- Reduced risk for the farm in regard to supply interruption or inconsistency of water quality.
- Increased animal health from better water quality.
- Asset protection and increased longevity through the removal of iron and manganese.
- Partnered support and easy monitoring by the Acqua by Davey system.
- Flexibility and agility in project delivery around the larger construction milestones of the project.

## ABOUT ACQUA BY DAVEY

Our solutions and team of experts can treat water for medical and healthcare services, food and beverage, community drinking and wastewater, farming operations and large commercial operations such as hotels and universities.

We know that each water solution need is different and depending on your circumstances and application, will require expert advice. This is where we come in, offering the best treatment solution to suit your needs and provide you with the systems to monitor results and help you adjust when and where you need to.



The system utilises cartridge filtration, ion exchange and chlorine disinfection to achieve the water quality required.