

Airwell an important piece in the jigsaw

Jigsaw Farms, the family property of Mark Wootton and Eve Kantor, integrates forestry, carbon and indigenous plantings with high-productivity grazing on a large scale. Airwell pumps are an integral part of their farm's water system.

The enterprise is made up of 11 properties totalling 5900 ha with environmental works and forestry on 20% of land area. Large connected tracts of revegetated waterways, farm forests and wetlands play a vital role alongside 40,000 adult sheep and 30,000 lambs and 1,200 breeding cattle that are run on high-input pastures

A critical part of the farming operation is an efficient and reliable water system. All paddocks have troughs that are supplied through a reticulated water system. The key to this is a series of deep water storage dams ranging from 20 to 45 mega litres in size and a number of bores utilized in very dry periods. They provide water needed to fill a series of 2 to 3 mega litres sized turkey nest dams that are positioned on the highest points round the farms as well as number of storage tanks strategically placed.

The Pumping System

The water is delivered using Airwell pumps that are positioned in the large dams. The water is pumped using air compressors located up to 4 kilometres away from the dams, the water is pushed by the Airwell pumps 5 kilometres to holding tanks and troughs.

Originally some of these dams were set up to use windmills to fill the turkey nest dams, but could not deliver enough water to keep up with the demand on the system. The Airwell pumps now provide a reliable supply and quantity to meet the needs of the farming operation.



Eve Kantor and Mark Wootton with one of the 16 Airwell pumps at Jigsaw Farms

Jigsaw Farms currently have 16 Airwell pumps in place with another two to be fitted over the next few months. They also use the Airwell system to provide a pressured water delivery system to some parts of the properties where there is not sufficient height to install a storage facility to allow for gravitation flow to troughs. The water system has been set up to allow direct pressure into the gravity system from the turkey nest dams in high demand periods as well. This ensures fast and large volume delivery of water.

“The Airwell pumps were selected in the whole water plan due to the capabilities of being able to pump water 24 hours a day on demand anytime of the year without the problem of wind (lack of) and sun light hours altering during the year,” said Mark Wootton.

In the initial stages, 2 Airwell standard dam pumps were installed to see how they performed, and according to Mark “we found them to be very reliable and efficient to run, the same as any other electric operated pressure pump, with the advantage of being some distance from power to the water sources.”

As the infrastructure at the various properties which make up Jigsaw farms has been upgraded over the years, the water systems have been developed. “We have used various types of pumps to suit our requirements, to the point in the grips of the last drought we recommissioned old bores using Airwell pumps which enabled us to use water sources which otherwise we would not have been able to use to get us through this period,” said Mark. Since then, Jigsaw Farms have increased the number of storage/catchment dams to drought proof the properties, as the bore water in the district is not of good quality for young stock, so they are heavily dependent on good quality surface water.

Of the 16 Airwell pumps used in Jigsaw Farms operation there is:

- 4 - High Performance Dam pumps for large volume delivery.
- 5 - Standard Dam pumps for regular operation.
- 1 - Transfer pump to pressurize a section of troughs
- 1 – 4”X2 metre Bore pump with Basic controller on a bore heavily contaminated with Iron Bacteria.
- 4 – 4”X2 metre Bore pumps with Solar Controllers on Standard bores
- 1 – 4”X1 metre Bore pump with Solar controllers on a Low Production bore.



One of Nine Airwell dam pumps at Jigsaw Farms

According to Mark, “The Airwell water movement system has maximised our ability to move water around our farms and provide a reliable water supply to our stock. Water is always a key concern on a farm, even more so now that the climate is changing and rain is not as reliable. We have found this system to be efficient and flexible, adapting easily to our changing needs. Robert Fishburn, our local Airwell provider, has been a crucial part of that success, both with the initial design and now with maintenance: he responds quickly on the odd occasion that we have concerns and his expertise has been well applied to the range of water challenges that arise on a farming operation as large as Jigsaw Farms.”

To find out more about Jigsaw Farms or about how Airwell can help you find a solution to your water planning issues please contact us on 08 9209 3355 or email sales@airwellgroup.com.au . To find information about Airwell products and services as well as find other case studies visit our website www.airwellgroup.com.au