



Hydraulically Operated Hard Hose Irrigator

Customer: Stevenson Farming

Location: Victoria Plains, QLD

Case Study ID: [CS-04](#)

Date: August, 2017

Overview

Dowdens Pumping & Water Treatment Mackay branch has delivered a Height Adjustable Hard Hose Boom Irrigator to a local Victoria Plains, QLD Sugarcane Farm. Farmer Ian Stevenson operates a number of sugarcane farms in and around Victoria Plains, QLD. Due to lack of rainfall during the 2015/16 growing season, and a desire to lower his overall irrigation costs Ian decided to purchase a MONSOON Hard Hose Irrigator, combined with a RAPTOR Folding Boom to better facilitate irrigation of his cane.

Wanting to purchase his new irrigator from a dependable Australian business Ian contacted Monsoon Irrigators, who in turn engaged the Dowdens Mackay Agricultural Sales Team - one of the most experienced Agriculture sales teams in Australia, with over 125 years of combined irrigation system design and operational experience between them. As a company that has built its foundation on the

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servicing and development of agricultural pumping systems, Dowdens Pumping & Water Treatment have the experience to engineer a solution to suit any agricultural application.

For over 45 years Dowdens Pumping & Water Treatment have been selling & servicing irrigation products throughout Central & Northern Queensland - designing each and every system to improve farming efficiencies, reduce downtime and increase the longevity of pumps/irrigators.

The Problem

The Dowdens Mackay Agricultural Sales Team had several phone conversations with Ian to begin the investigation and design process for the most appropriate system. The sales team then met with Ian in the Dowdens Mackay branch to present the irrigator and irrigation plan that was best suited to Ian's 800-acre property parcel under cane. Ian's experience over many years of irrigation on his property helped both parties recognise the MONSOON Irrigator Dowdens proposed was a perfect match.

Taking into consideration the terrain, the farm's location (near the coastline - a high wind region), existing pump capabilities and source water availability (30psi gravity fed via the Eton Water Supply Scheme), Brett suggested the MONSOON Hard Hose Irrigator & RAPTOR Folding Boom.



Our Solution

The Stevenson's farm is located in Victoria Plains near Kinchant Dam, meaning their main water comes via the Eton Water Supply Scheme. Kinchant Dam, situated near Mt Kinchant (6kms southeast of Mirani), is the only major storage in the Eton Water Supply Scheme. It was constructed to capture runoff water from the small portion of the catchment of Sandy Creek and water pumped from the Pioneer River. Three water harvesting pump stations are located at Mirani Weir below the confluence of Cattle Creek and the Pioneer River, and divert water into an 8km diversion channel into Kinchant Dam.

As this storage dam is predominately used for the irrigation of sugarcane, water from Kinchant Dam is reticulated through open channels and pipelines to the customers by gravity and relief pumping systems. The channel supply system distributes water from Kinchant Dam through 35kms of open earth channels

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to the various sections of the scheme including gravity-fed channels supplying water to Victoria Plains farmers to the east.

30psi inlet pressure and 20psi pressure at the boom (with an average flow of 12L/sec), meant that when Dowdens Mackay Agricultural Sales Team were designing Stevenson Farming's new low-pressure irrigation system they did not need to include an electric or diesel booster pump set. This resulted in drastically reduced operating costs for Stevenson Farming as the irrigator can be operated by one man, 24/7 without the need to supply power or fuel to any booster pumps.

The MONSOON Hard Hose Irrigator & RAPTOR Folding Boom is an extremely efficient and reliable low-pressure irrigation system that when installed and operated correctly saves farmers water, energy, time and money - whilst increasing overall farm crop yields. Operating off a low-pressure gravity-fed line of 20psi (at the boom) meant the MONSOON Hard Hose Irrigator combined with a RAPTOR Folding Boom was perfectly suited for this Victoria Plains farm.



Key Components

- Monsoon Hard Hose Irrigators are constructed from High-grade Aluminium and Galvanised steel which resists corrosion in the harsh Australian climate, with a unique steering system that allows boom tracking for P.E Hose
- Monsoon irrigators low operating costs can be up to 50% more cost-efficient than conventional travelling gun irrigators
- Designed to give uniform precipitation at low pressure - making them ideal for use in & around the Victoria Plains region (being a part of the Eton Water Supply Scheme)
- Irrigators are a one-person operation and are fully transportable within minutes
- RAPTOR open-close operation is facilitated by the particular foldable structure made of galvanized steel. Very little time is required & installation is carried out by just one person
- OPEN the RAPTOR boom can be loaded onto irrigator for small movements & CLOSED the boom can be loaded onto irrigator for transportation
- The hydraulic version has the ability to vary the working height from 1 to 3m above the ground
- Each nozzle is mounted on a ball valve for closing as required

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Brands used in this project



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