



Valley 471m Precision Polylined Pivot Cost Savings

Customer: Pastega Holdings

Location: Eton, QLD

Case Study ID: CS-127

Overview

Dowdens Pumping & Water Treatment are the sole authorised Valley Irrigation Dealers for Mackay & Whitsundays. The Dowdens agricultural irrigation sales team has over 125 years of combined agricultural and irrigation sales experience to help our customers improve their farm's productivity & lower their overall operating costs.

Valley Irrigation is the worldwide leader in precision irrigation. The Valley brand of center pivot, linear, and corner equipment provides solutions for conserving water and meeting the growing demand for food. The center pivot is much more than an irrigation machine. Sharing the intelligence between connected field devices, the pivot, and the integration of data science and machine learning lets you detect and receive critical information to improve crop precision, which results in greater returns - all while using fewer inputs and resources.

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Pastega Holdings have various sugar cane farms located in Eton southwest of Mackay. The family have been progressively taking their farming practices into the 21st century and moving their irrigation to Valley pivot systems allowing water, time and electricity savings. They believe that personal time with their families is very important so having a fully automated irrigation system that can be operated via their phone from anywhere in the world with phone access was a huge benefit.

The Problem - Replace existing 140x400 Poly Reel Irrigators

"Irrigation electricity tariffs in Queensland have risen a minimum of 136% over the past decade, and for some more than 200%." - Qld Country Life - Feb. 2018.

Power Costs per Irrigation Cycle

Existing 140x400 Poly Reel Irrigators, which used 37Kw for 480 hours watering a total of 25mm per irrigation cycle.

Average power cost *\$4972 + GST per irrigation cycle

Labour Costs

It takes on average 18 hours of the farmer's time to shift the Irrigator per irrigation cycle.

Labour Cost 18 hrs x *\$35/hr = \$630 per irrigation cycle

TOTAL COSTS PER IRRIGATION CYCLE - * \$4972 (power) + \$630 (labour) = \$5602



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Our Solution

Upgrade Valley 471m Precision Polylined Pivot with 81m Corner Arm

Power Savings per Irrigation Cycle

The Valley Polylined Precision Corner Arm System did the same job in an average of 80 hours at \$828.00 + GST in electricity cost.

Poly Reel Cost per irrigation cycle - \$4972 + GST

Precision Polylined Pivot Cost per irrigation cycle - \$828.00 + GST = *\$4144 SAVING + GST

Time Labour Savings per Irrigation Cycle

It takes the farmer **NO TIME** to move the Valley Polylined Bender 160 Irrigation System per irrigation cycle. The system is remote controlled.

Poly Reel Labour Cost per irrigation cycle - *\$630 + GST

Precision Polylined Pivot Labour Cost per irrigation cycle - \$0 + GST = *\$630 SAVING + GST

**Average Cost Polylined
Machine
*\$3172 H/A Installed + GST**

**Average Savings per
Irrigation Cycle
*\$4774 Power & Time + GST**

*Please get a detailed analysis to *confirm you're possible savings.

Key Components & Features

- 471m Full Circle Hi-Profile Pivot with an 87m corner arm
- 1 X 37Kw & 1 x 22KW with variable speed drives
- 2HP end gun
- Variable Rate Management System for different soil types
- Pumping 90 l/s back to 28 l/s for 28psi regardless of flow rate
- 200mm ring main for water delivery
- Delivering 25mm of water over the area in 80 hours

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Why Polylined?

- Future liquid fertiliser
- Controlled fertiliser application
- Fertiliser savings

Maximum Coverage Achievable

- Control via Computer or Mobile Phone
- Increased efficiency and water cost savings
- Programmable to suit your crops needs

Project Design Philosophy

Dowdens Pumping & Water Treatment's design philosophy for this project was:

- Cost-Effectiveness
- Current Best Practice
- Ease of Installation
- Simple & Effective System Operation
- System Reliability & Delivering Reduced Ongoing Maintenance Requirements.



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Brands used in this project



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