



## Valley 316m Polylined Bender 160 Pivot Cost Savings

**Customer:** Pastega Holdings

**Location:** Eton, QLD

**Case Study ID:** CS-100

### Overview

Dowdens Pumping & Water Treatment are the sole authorised Valley Irrigation Master 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 Eaton 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

The existing 140x400 Poly Reel Irrigators, which used 37Kw for 145 hours watering a total of 25mm per irrigation cycle.

**Average power cost \*\$1502 + GST per irrigation cycle**

### Labour Costs

It takes on average 11 hours of the farmer's time to shift the Irrigator per irrigation.

**Labour Cost 11 hrs x \*\$35/hr = \$385 per irrigation cycle**

**TOTAL COSTS PER IRRIGATION CYCLE - \* \$1502 (power) + \$385 (labour) = \$1887**



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## Our Solution

### Upgrade to a 316m Polylined Part Circle Bender 160 Pivot

#### Power Savings per Irrigation Cycle

The Valley Polylined Bender160 Irrigation System did the same job in an average of 52.5 hours at \$542.00 + GST in electricity cost.

**Poly Reel Cost per irrigation cycle - \*\$1502 + GST**

**160 Pivot Cost per irrigation cycle - \$542.00 + GST = \*\$960 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 - \*\$385 + GST**

**160 Pivot Labour Cost per irrigation cycle - \$0 + GST = \*\$385 SAVING + GST**

**Average Cost Polylined  
Machine  
\*\$4032 H/A Installed + GST**

**Average Savings per  
Irrigation Cycle  
\*\$1345 Power & Time + GST**

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

## Key Components & Features

- Valley Poly Lined Bender160 Pivot
- 37Kw Davey centrifugal pump
- VFD with pressure sensor fitted
- Pumping 30 L/S (26psi constant pressure)
- 600-800m of 150mm class 9 PVC piping
- 180m of 150mm Snaptime irrigator hose
- Delivering 25mm of water over the area in 52.5 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.



## Brands used in this project



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