

# Remote Irrigation System

## VARIABLE SPEED DRIVE & CONTROLLER INSTALL

Middy's customer, Greg Maher contacted Troy Crawford (Middy's Industrial Business Development Manager, Central & Northern Victoria, Riverina & ACT regions) for his industrial automation expertise as he was chasing a solution for a variable speed drive and controller to run an irrigation pump. Greg provided Troy with an outline of his requirements, and Troy then engaged Scope Electrical Solutions' Design Team to work on a custom design to fulfill Greg's brief.

Greg approved the design and the materials were then provided by Middy's Electrical. From there, Scope Electrical created detailed schematic drawings and built the controller. The controller was thoroughly bench tested in the workshop and then shipped to Greg for him to install on-site with detailed installation instructions and phone support when required.

Greg required the controller to be user friendly. He also required a remote control with mobile phone alerts, flow failure feedback, variable speed drive status feedback, scheduler for set and stop start times on hours and days of the week, the ability to run at a set pressure, adjustable set point and finally a fault history time and date stamped.

The team installed an Allen Bradley M820 Micro-PLC, Allen Bradley components including a HMI 7" Colour Touch Screen, an ABB ACQ Aqua Variable Speed Drive and PDS SMS – 4 EZY Switch SMS Messenger.

Greg's customer can now turn the irrigation pump on and off from anywhere on the farm with his mobile phone and the pump can also send text message notifications if it has faulted, or when the pump is stopped and started on-site. The customer can also set a desired pressure and the pump will adjust its speed to achieve the set point. The controller can be set in three states, the first being Auto (the pump will run on set times in the scheduler) second, remotely (the pump will start and stop when sent messages via an app) and lastly, manually (the pump will start and stop from touch screen located on the controller on site).



**THE LOCATION:**  
REMOTE FARM IN ECHUCA, VIC



L-R: GREG MAHER, GOLDEN RIVERS ELECTRICAL (DIRECTOR) & MATHEW FERGUSON, MIDDY'S ECHUCA (BRANCH MANAGER)

## THE INSTALL:



- ▶ Allen Bradley M820 Micro-PLC
- ▶ Allen Bradley Components including HMI 7" Colour Touch Screen
- ▶ ABB ACQ Aqua Variable Speed Drive
- ▶ PDS SMS – 4 EZY Switch SMS Messenger



*Middy's is a fabulous resource for us. They have an in-depth knowledge of the electrical industrial sector and are always happy to help. We enjoy working closely with the Middy's staff to supply our customers with great solutions and quality products. Middy's Echuca have worked hard over the last three years to ensure they are offering us the specific technical support we need.*

**Paul Allan** - Director, Scope Electrical Solutions



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