

BOB'S BIG GUNS

Bob Rupar, Vice President and Key Player of Nelson Irrigation for over 40 years tells his story. He knows these products just about as well as anyone, and he'd like to share his current thinking.

It seems like I grew up with the Big Guns, both because of my work at Nelson Irrigation Corporation and on our family farm and ranch. I hated hand lines, so the Guns were a natural solution. In the early days, we moved guns around on tripods with aluminum pipe. The Guns worked just fine, but were hard work at inconvenient times of the day.

In the early 1980's Nelson perfected what we call the **QUICK COUPLING VALVE SYSTEM (QCV)** that allowed you to connect and disconnect a gun from the valve while it was still under pressure. It is the only product of its kind and it works flawlessly in my opinion. When the QCV came on the market, I started to bury PVC pipe to feed the QC's so we could get rid of the aluminum pipe. Life got a lot easier, but we still were plagued by the task of having to move the guns every few hours (about once every 4 hours) and I can remember the many times I had to get up and move guns in the middle of the night, as crazy as it seems in retrospect.

I spent many years trying every way imaginable to automate the guns with the idea of sequencing through a series of guns and then moving them to new locations once a day. I tried several battery operated systems; all of the wireless systems that proved to be lacking; and finally I took one 15-acre field and hard wired in automated solid set guns. One gun and solenoid valve on every riser. It was very expensive, but very nice, until I started having gophers eating the wires, lightning taking out the solenoids and lots of problems keeping the wire connections water tight. To say nothing about me ripping up the wire where it was not buried as deep as I was told it was buried. Finally, in frustration, I abandoned the system, but did not abandon my desire to end up with a system that made sense.

Then, along about 5 years ago, Nelson got the idea to enter into a development program on a **NEW WIRELESS CONTROL SYSTEM** to operate our line of control valves. Naturally, I was to become one of the Beta testers of this system with the first automated, wireless guns going at my place in 2011. From previous experience, I was leery of radio controls and the problems I had always heard about. Right out of the gate, we did have some problems, but we have a great engineering team at Nelson and they simply solved all of the early on problems. In 2012 we had a great season and in 2013, the system worked flawlessly except for a couple of plugged solenoids from dirty water. Wow! I cannot tell you what a pleasure it has been to operate this system.

I now have two kinds of automated, wireless Big Gun systems on my property and they are both worthy of consideration:



Bob Rupar in the First *Big Gun Bulletin*, 1987

AUTOMATED SOLID SET BIG GUNS. In this system, there is a gun with its own valve and radio receiver at each gun location in the system. This is the Cadillac of systems. These systems are in operation all over the globe, literally. And what we have now brought to the party is the wireless technology to operate them. This system virtually eliminates labor and operates by push button control.

MOBILE GUNS. I am in that group of land owners that has a tough time justifying the cost of the solid set guns, so I have worked diligently as a tester for our team as they came up with a system that is still automated, still takes advantage of the gun system, but is much more affordable. (Please go to our web site to read all these details.)

The main thing you accomplish with the automated gun system is the savings of labor and the convenience of operation. Automation changes irrigation to an enjoyable task instead of hard and inconvenient labor. Automation also gives you the tool to put down exactly the amount of water that the crop needs. No more, no less. You can be as exact as you wish to be and you are not at the mercy of the irrigator who "tells" you he put on 4 hours of water but accidentally gave you 6 hours because he slept in. Automation is the future and Nelson Irrigation has some tools that make this so easy you won't believe it!



To see more pictures and get the full story on Bob's Big Guns go to nelsonirrigation.com



TWIG Wireless Control System Receives AE50 Award

The American Society of Agricultural and Biological Engineers (ASABE) recently announced that Nelson Irrigation Corporation has won an AE50 award. Nelson Irrigation Corporation developed the TWIG Wireless Control System deemed one of the year's most innovative designs in engineering products or systems for the food and agriculture industries. The TWIG system is featured in the January/February 2014 special AE50 issue of ASABE's magazine Resource: Engineering & Technology for a Sustainable World.

The TWIG is a reliable automation solution for irrigated agriculture. Installation is quick and easy: mount the TWIG to a Nelson control valve, and then program the TD200 to create a schedule for automatic valve sequencing. The simple interface of the TWIG and TD200 controller make it easy to automate an entire irrigation system, regardless of the system type or the size of the operation. Whether managing a large Big Gun® dust suppression system, an apple orchard, multiple zones of a drip system, or miles of sprinklers on row crops, the TWIG can tie the components together without the expense of trenching and wires. The controller contains watering schedules that operate each valve. After it automatically discovers all valve modules, the controller is programmed at one location. All valves are synchronized. Program setup consists of simply grouping all valves that irrigate at the same time. Programs are easily named by the user to indicate the purpose of valve arrangements and the function of irrigation schedules.

LIMITED AVAILABILITY — PLEASE CONTACT FACTORY.

