

PIVOTPOINT®

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What the Tech?

New! Valley_® X-Tec[™] Center Drive Valley ICON[®] at Work in the Field Improve Water Usage Through Technology

Letter from the PRESIDENT



Technology that lasts

Have you ever started using a certain technology and wondered, "How did I ever get by without this?" Those are the irrigation technologies we at Valley_® work to provide you with every day.

It starts with the structure of the pivots in your fields, and it reaches all the way to the apps on the smartphone in your pocket. It can take months – or even years – of research, development and testing before we introduce a new technology to our customers.

We believe the process provides great worth so we can provide the kind of technology that our customers want and expect from us. With all of the technology advancements coming from Valley, you can be sure it's the best and built to last.

LEN ADAMS President, Global Irrigation

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Valmont Irrigation, 28800 Ida Street, Valley, Nebraska 68064-0358 USA Phone: 800-825-6668, email irrigation@valmont.com. Subscribe on the web at www.valleyirrigation.com. To cancel a subscription, email valleymarketing@valmont.com. Special promotional offers valid only at participating Valley dealers in U.S. and Canada.

Investing in the Future of Farming Through **TECHNOLOGY**

Irrigation management is no longer simply putting water on the ground every couple of days and hoping for the best. Today's growers are concerned with water efficiency, runoff, utility costs, plant health, and, of course, how to produce the best yield possible.

After all, there's more at stake than just this year's crop.

"When a grower invests in the right technology and uses it correctly, it can affect future generations," says John Campbell, Valley Irrigation Senior Global Manager of Technology Advancement and Adoption. "It helps them make the most of every resource, from time and labor to soil and water. That can make a huge impact now and for many years to come."

It's easy to be overwhelmed by all the apps and technology that pop up every week, but as Valmont_® Vice President of Global Marketing Matt Ondrejko says, it can take years to develop and test technology that will be truly relevant and useful over the long haul.

"There are a lot of ideas and fly-by-night organizations out there, but at Valley, we listen to our customers and try to anticipate what they're going to need," Ondrejko says. "We talk with growers and dealers before we develop a new technology. Once we do that, we test it extensively in the field before it ever hits the market. That's how we know it's what our customers need, that it's going to work, and it's going to last."

Center pivots and the technology that accompanies them are significant investments, and it's important for growers to know that their technology won't be obsolete in a few years.

"We develop products in a way that won't leave customers behind. We know it's a large investment, so we spend a lot of time ensuring that everything is either backwards compatible or upgradable," says Ondrejko.



The Right Technology for Each Situation

"We never recommend technology just for the sake of technology," Campbell says. "We want to make sure our customers are the most efficient, the most productive and the most profitable they can be."

That's where the dealer comes in. No two farming operations are alike, and Valley dealers are the best in the world at getting to

NEW!



know their customers, their soil and terrain, and then recommending the technology that can get the most out of their operations.

Programs and sensors, such as AgSense[®], BaseStation3[™], soil moisture monitors, mapping and more, can all work together to provide the data growers need to make the best irrigation management decisions.

Valley Irrigation Exchange[®] (IX) also enables data sharing across platforms, putting the control of that data in the grower's hands. Valley is actively working to add more partners to IX for even better informed decision making.

"We are trying to integrate all of the data for the grower, creating an umbrella for all irrigation data and management," Ondrejko explains. "That way, they can use whatever systems work best for them, even if it's from another pivot brand."

Once the grower determines the best way to irrigate, he utilizes the tools to make it happen. New technology in variable rate irrigation, remote management and control, and even center drive motors provides flexibility and options that help growers to get the most out of every drop.

"Technology allows us to irrigate with incredible precision now," says Campbell. "It's becoming increasingly important to make the most of every resource and input to save growers valuable time and money, while allowing them to reap the rewards of better plant health and yield."

In this issue of PivotPoint[®], you can read more about the latest technology and how your fellow growers are using it to improve their operations.

Valley_₀ X-Tec[™] Center Drive

A Perfect Combination of **Speed** and **Power**

Valley Irrigation continues to guide growers with new technologies and innovative techniques to gain greater yields and produce healthier crops. The new Valley X-Tec[™] advanced DC center drive motor does just that. The power allows pivots to move at a smooth, consistent pace, even over varied terrain at any speed, while the FastPass[™] technology allows it to operate up to twice the speed of a standard, high-speed AC center drive motor.

Justin Wootan, a potato grower on Black Mesa Farms in Idaho, was one of the first to test Valley X-Tec as a means to keep up with his irrigation schedule and improve the quality of his potatoes.

"To get high-quality potatoes, we need a lot of water, and Valley X-Tec helps us keep up with that high demand," Wootan says. "We run our pivots all day during the hot season, and our pivot with Valley X-Tec technology lets our irrigation package match the water intake rates of the soil and evapotranspiration."

Protecting Crops

Specialty crops, such as carrots and potatoes, are susceptible to heat and sun. They require a daily cooling spray to remain healthy, and running a pivot over the crop at top speed provides the proper cooling for plant health.

Galen Grimm operates his pivots on the hilly terrain of northeast Kansas. He uses his Valley X-Tec on a new Valley 8000 series pivot to cover just over a half-circle of corn.

The thermal sensors in Grimm's cornfields indicated that the temperature in the canopy is often 10 degrees higher than the outside temperatures. On hot days, that can be a significant factor, so Galen started using his pivot to cool his crops.

"I can have my pivot make two cooling passes in an afternoon when it's 105 degrees out," Grimm says. "At full speed, it only takes about an hour and a half each way. We can cool our crop with a quick rotation, send the pivot back to the starting point and send it around again, all in one afternoon."



Consistent Application

The patented alignment technology and robust DC motor of the Valley X-Tec allows it to move at speeds as low as 1 RPM – just 1% of maximum motor speed – or ramp up to a fast 136 RPM, giving growers the ability to gain consistent application at any speed.

Grimm is also using the Valley X-Tec in his quest to gain higher yields.

"We are doing a lot of research on how to increase yield," he says. "The Valley X-Tec plays into that because it provides totally uniform application and has the flexibility to run at different speeds for varying situations. The water application under that pivot is completely consistent, because it moves so smoothly."

To see the Valley X-Tec in action, visit » valleyirrigation.com/XTec

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What the ?

VALLEY CONTINUES TO ADVANCE IRRIGATION TECHNOLOGY

Irrigation technology is present in every component of mechanized irrigation. From the spans to the wheels to the gearboxes to the control panels, every innovation in the industry takes the grower to new levels of efficiency, control and empowerment.

Valley Irrigation, *The Leader in Precision Irrigation*, is built on the foundation that all we do is for the betterment of farming, providing growers with the tools and innovations they need to make farming easier. Continually, we evolve our product offerings to advance technologies, making what they are capable of doing today even better for tomorrow. Growers expect every aspect of their operation to keep up with their changing lifestyles, while improving yield and crop health.



That's the way it should be, according to John Campbell, Senior Global Manager of Technology Advancement and Adoption.

"Things are changing so fast now, and we need to improve our technology continuously," he says. "Although we've been doing this for years, in today's environment, this needs to happen at an even faster pace. Not only have we launched new products to fit the needs of our growers, but we've also enhanced and advanced technologies in our current products."

Control Panels

ICON®

Growers who have been irrigating with Valley machines for many years may remember the old mechanical panels that featured only on-and-off functionality, along with a percentage timer for depth of water. That worked well for that time, and only for a while. In 1990, Valley created a demand in the market with the introduction of the first computer-based panel.

"The grower suddenly had more options and control, like when to run their pivots, how much to run, and how many inches of water to put on the field," Campbell explains. "We continued making improvements in how user friendly our control panels were. The features and functions worked really well, so the basic structure didn't really change until we introduced the Valley ICON[®] smart panels in 2017."

So, what's the latest technology in control panels?

The Valley ICON panels really took things to a new level, especially with the ease of use. The idea behind the ICON family of smart panels is to provide growers with whatever control they want in a very simple manner.

Whether buying a new pivot, upgrading an existing mechanical control panel, changing from another brand of pivot, or switching from a different irrigation method, growers benefit from using an intuitive, full-color touchscreen that fully utilizes today's rapidly changing technology.

"If you can use a smartphone, you can use these panels, either at the pivot or remotely," says Campbell. "They're extremely intuitive and easy to use. Plus, they're fully upgradable. It will be easy to add features and make improvements to keep up with the irrigator's needs."

In the near future, growers will be able to install Valley ICON panel software updates over the air through the AgSense ICON Link.

"This will seem very familiar to our growers, because it's much like a smartphone or computer that automatically notifies the user that an update is available," says Campbell. "This is another means to make life easier for our growers and provide them with the tools they need in the most simplistic fashion to make technology easier."

Variable Rate Irrigation (VRI)

As growers search for new and better ways to use water more efficiently, variable rate irrigation has become an excellent option for ensuring timely and effective application of nutrients to their crops. Through personalized prescriptions, growers can control how much water is applied to various sections of the field through individual sprinkler control, VRI Speed Control or VRI Zone Control.

So, what is new with VRI technology?

Thanks to a new exclusive partnership with Trimble®, the bar has been set at an all-time high. Trimble uses GPS-based technology to allow growers to control their irrigation machines down to the individual nozzle.

Campbell says, "Precise and targeted application of water through Trimble technology is just another way we continue to look out for our growers through continual transformation and bring them the best of the best on the market."

WAGSENSE

See more about Trimble technology on page 15.

With AgSense[®] ICON Link, Staying Connected Comes Built In.

Every Valley, ICON[®] smart panel comes out of the box, ready to use, with AgSense[®] ICON Link. With a robust feature set, ICON Link is the key to unlock the full potential of Valley ICON smart panels from anywhere in the world via the AgSense mobile app.

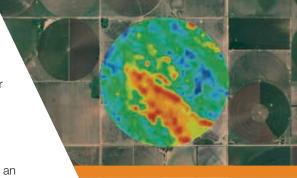
Ask your dealer about AgSense ICON Link today!





agsense.com valleyirrigation.com

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At Work in the Field

USER-FRIENDLY. ECONOMICAL. SIMPLE. EFFICIENT. 100% SATISFIED.



FARM:	Sumter Sod
LOCATION:	Spread over two counties near Leslie, Ga.
CROPS:	Nine types of grasses on 900 acres
NUMBER OF SMART PANELS:	Four Valley ICONX panels, all on Valley center pivots



Q: What made you decide to install the Valley ICONX?



A: I wanted to put AgSense on some of my pivots because my farm is so spread out that I'd spend half of my time managing my irrigation. I wanted to control my pivots remotely and be able to run them at night to avoid peak hours, but I didn't want to run out to each pivot at all hours. My Valley dealer, Jase Reid at Reid Brothers Irrigation, recommended the Valley ICONX as an economical replacement panel to make it all happen.

Q: On which machines did you install Valley ICONX?

A: They're all Valley pivots. I added the Valley ICONX to four older panels: two ClassicPlus panels, one old 4000 panel and one Basic panel.

Q: What are the main benefits you've seen?

A: It makes irrigating more efficient. I can monitor my pivots on my phone from anywhere, and I can time things better. I have 22 pivots, and with four of them on AgSense with the Valley ICONX panels, I can get more things done.

Before, I would turn on my pivots and leave them on. A lot of the time, they'd run too long because I couldn't get out to the pivots to shut them down. Now, my pivots shut off at exactly the right time, and I can monitor them from home. It saves a lot of time, so I can do other things.

The Valley ICONX panel itself is simple, too. It tells me all I need to know right at the panel, and it's the same on my smartphone. It's really easy to use.

Q: Will you convert any more of your panels to the Valley ICONX?

A: Definitely. I hope to convert all of my other pivots in the next year. While it's an investment up front, I can see savings and convenience immediately. The first time I used the new panel setup, it saved me a couple of hours. I can spend more time with my family, and I'm not thinking about my pivots the entire time.

VALLEY ICON

These are all words that growers use to describe the Valley ICONX smart panel. If you're contemplating upgrading your control panels, no matter whether they are Valley machines or other pivot brands, learn how five very different growers use their Valley ICONX to control their pivots at the pivot point, from the field, or from home.



GLEN SCHUR

FARM:	Schur Farms
LOCATION:	Near Plainview, Tex.
CROPS:	Cotton, corn, wheat, seed sorghum, seed millet, also 150 head of cattle, 3,000 acres
NUMBER OF SMART PANELS:	Two Valley ICONX panels, both on Valley pivots

Q: What made you decide to install the Valley ICONX, and on which machines?

A: My dealer recommended Valley ICONX panels for a couple of used pivots that I purchased from him. I am a big believer in variable rate irrigation, and I use a lot of soil moisture probes to make water management decisions, so it seemed like a good fit. I use booster pumps at the wells, so I am often at the panel at startup, but I also like to use my smartphone to monitor and control my pivots.

Q: What are the main benefits you've seen?

A: It's so easy to use, from the startup to everyday use. I like that I can see everything I need to see on the small screen at the panel or on my phone. No matter what I'm using to control and monitor my pivots, it's all the same. I usually handle it, but sometimes we have additional workers who don't know the entire operation, and it's easy for them to understand how to operate the Valley ICONX quickly, too.

I am running prescriptions through AgSense, and it's seamless. The GPS at the end of the pivot is very accurate, too, so it's easy to see exactly what's happening and to change my variable rate prescription whenever I need to.

Q: What are some other advantages of Valley ICONX?

A: We only get about 18 inches of rainfall per year, so we try to conserve as much water as possible. We gather data from soil moisture probes every day, calculate evaporation in the fields and make water management decisions based on that. We started splitting our pivots and planting crops based on water availability. We use VRI prescriptions and irrigate by degrees wherever the best land and water is.

Using the Valley ICONX with an AgSense subscription is an economical and easy way to track what our pivots are doing, and to see just how much water we're applying to varying parts of the field. We can then analyze and make the necessary adjustments as we go.

Q: Will you convert any more of your panels to Valley ICONX?

A: We have a Zimmatic with a mechanical panel on it, and we'll probably replace that with a Valley ICONX in the near future.

 What you see depends on how you view the world. To most people, this is just dirt.

 To a farmer, it's potential.

 - Doe Zantamata

VALLEY ICON





LEE HERRICK

FARM:	LL & B Herrick, LLC
LOCATION:	Spread over two counties near Franklin, Neb.
CROPS:	70/30 rotation of corn and soybeans
NUMBER OF SMART PANELS:	Seven Valley ICONX panels, all on Valley pivots

For me, it was like going from a stone tablet to a computer, and so far I am 100 percent satisfied. It's sophisticated, but user friendly. I can do whatever I want with it, and if I hit a wrong button, I'm not going to break anything. I can't really mess things up."

– Lee Herrick



Q: What made you decide to install the Valley ICONX?

A: I was putting 225 miles on my truck every day just to manage pivots, so I really wanted to use AgSense telemetry. I needed to upgrade my panels, and the Valley ICONX was a pretty inexpensive way for me to do that.

Q: On which machines did you install Valley ICONX?

A: I've got older Valley machines. I replaced an old panel on an '84 model. The rest were older Valley control panels. The structure on all of my pivots is still fine, so I didn't need to replace the machines – just the way I was controlling them.

Q: What are the main benefits you've seen?

A: For me, it was like going from a stone tablet to a computer, and so far I am 100 percent satisfied. It's sophisticated, but user friendly. I can do whatever I want with it, and if I hit a wrong button, I'm not going to break anything. I can't really mess things up.

My wife loves that I'm home earlier for supper at night, because I have seriously cut down on my trips to the pivot point. My pivots run on natural gas and diesel, so I still have to go to the panel to start them, but now I can have the pivot go around in an allotted time.

In a 24-hour span, I can set fertigation pumps to apply perfectly, so my irrigation and fertigation pumps are now working in sync.

The end gun control is also fantastic. I really like being able to turn the end gun booster on and leave it run, and then shut it off from anywhere.

Q: Will you convert any more of your panels to Valley ICONX?

A: All I have left is a T-L. The structure is fine on it, but I can see switching to Valley ICONX so it runs the same as the others.

BaseStation3[™] BUY 5, GET 1 FREE



Now through December 31, 2017, **purchase five RTUs** to connect pivots or linear machines to BaseStation3 and

get the sixth one FREE!

(a \$3,000 value)

Contact your local dealer today about this offer!



The farmer has to be an optimist or he wouldn't still be a farmer.

- Will Rogers



REASON #1 TO GET AN ICONX

Complete control over any brand of pivot.

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And the Winners Are...

Congratulations to the Winners of the Valley ICON[®] Smart Panel Giveaway

TO CELEBRATE THE RELEASE OF THE NEW VALLEY ICON LINE OF SMART PANELS, WE GAVE THEM AWAY! CONGRATULATIONS TO **DOUG POPP**, **MIKE MICKELSON** AND **GARY BAGGETT**! ALL WINNERS CHOSE TO INSTALL THE FEATURE-RICH VALLEY ICON10 SMART PANEL ON THEIR PIVOTS.

Mike Mickelson

Argyle, IA

Mickelson farms in the very southeast corner of Iowa, within eyeshot of both Missouri and Illinois. He farms about 2,500 acres of corn, soybeans and wheat, on vastly varying soils. His seven pivots lie mostly over sandy soil, though a single field can vary from blowing sand to gumbo.

This spring, Mickelson replaced a Valley Pro2 panel with his new Valley ICON10 on a seven-tower pivot that runs over corn.

"I really just turn my pivots on, run them in a circle, and turn them off," Mickelson says. "I don't even have to do much with end guns most of the time. I just need water over my crops."

That's why Mickelson goes out to the pivot point to start and stop his machines, and he appreciates the large 10-inch screen on his Valley ICON10.

"It's easy to see everything right there," he says.

Mickelson generally takes his motorcycle out to the pivot point on a quarter-mile lane.

"It gets a bit slick when it's wet, so I may try the Valley ICON app that lets me start and stop my pivot through the WiFi connection," he says. "I've only run it with the ICON10 about nine times so far, but there are a lot of really nice features on the panel, and I'm looking forward to using more of them in the future."





It Only Takes One Entry **TO WIN!**

All of the winners entered the Valley ICON Giveaway only once, and they were very surprised and excited to win the latest in control panel technology.

Mickelson learned of the giveaway when his dealer, Clint Sutter of Landmark Irrigation, texted him.

"He said I should enter, so I did," Mickelson says. "It was as simple as that."

Doug Popp Royalton, MN

Popp's farm is small but mighty. Its 240 acres hold 125 head of cattle, including 40 milking cows, and he farms corn, alfalfa, soybeans and oats. His kids grow sweet corn, pumpkins and gourds. The land is a mix of sand and river bottom, lying along the Mississippi River in central Minnesota.

He has two pivots – a 2003 Reinke and a 2008 Valley. He upgraded his Valley Classic panel for his newly won Valley ICON10.

"It was a big upgrade, although I thought I already had it made with my setup before," says Popp. "I switched to pivots from a traveling gun and a solid set. I had the world by the tail. This just made it that much better."

Popp chose the Valley ICON10 in part for the larger screen. He and his family run the pivot from the pivot point, and he finds the screen very easy to read, though he isn't the only one running it.



"I'm open to technology, but I was apprehensive at first. My kids, who are 16 and 13, are really good with it, and they like the new panel a lot," Popp says. "They've been working with it from the very beginning. They can go out and change the amount of water being applied at any time. It's nice."

Popp recently added 43 acres to his operation, and he hopes to put a pivot on that more remote land in the next five years. When that happens, he will likely gravitate toward an ICON10 to run the new machine.

"I'm pretty conservative, so I do things slowly," he says. "In the meantime, I can learn all the different features of the ICON10 and see how to use it more effectively."



Baggett and Popp read about the giveaway in Valley PivotPoint magazine.

"I never win anything, so when James at the Sprinkler Shop called and told me I won, it was quite a surprise," Baggett says.

"I had heard about the Valley ICON panels at a meeting at my dealership, Grand Irrigation," Popp says. "Then, when I read about the giveaway, I figured, 'Well, someone has to win!' So I sent in the form. It took about five minutes and it sure paid off!"

Gary Baggett Buhl, ID

Baggett's land sits just three miles outside of Buhl, Idaho. Beginning to enjoy his recent retirement, Baggett is now leasing his land. So, the land he's lived on most of his life is now seeing added value with his new ICON10.

"I've farmed for 55 years," Baggett says. "I moved to this land when I was two years old, and then I bought it from my father. This is home."

Baggett grows sweet corn, field corn, alfalfa and dry beans, and he leases a portion of the land for potato crops. Now, he sees the addition of an ICON10 smart panel on his four-year-old Valley pivot as a great benefit, whether he decides to sell in the future or continue to lease his land.

"The integration of the ICON10 will increase the value of the land," he says. "If I do sell, having a computer panel on the pivot will make it easier. If I keep leasing, it's an added benefit for the tenant. Either way – a win-win."

Baggett also has a Zimmatic pivot, and he's considering equipping it with an ICONX smart panel.

"I've done some reading on it, and the Valley ICON panels have features other brands don't have," he says. "They're better control panels, so in the long run, it just may be worth it."

Irrigation Finance and Insurance AT ITS BEST

DFS has been a leader in the irrigation finance industry since the company was established in 1969. DFS has financed and insured more irrigation systems than anybody else in North America. This industry dominance is a direct result of quality products and services that are tailored to meet the unique needs of each customer.

Because relationships are their primary focus, DFS takes a different approach to the credit application process. DFS uses dedicated relationship managers to work on every transaction. These relationship managers work directly with each customer to build a finance program that fits them best. DFS understands that no two financial transactions are the same, which is why they offer a variety of products, such as loans, leases, zero down and delayed payment options to fit customers' needs.

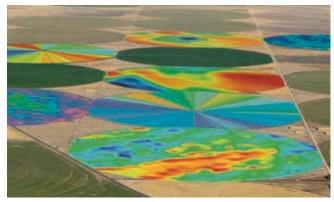
Given the current ag economy, it makes sense for most growers to finance their new Valley pivot or technology upgrades. With low interest rates, growers can customize a loan or lease solution that will allow them to cash flow their Valley purchase. With special low-rate financing available, there is no better time to buy a new Valley or upgrade your existing machine. Adding new technology to your current machine, like VRI, AgSense, BaseStation3 or a new Valley ICON smart panel, can increase your machine's efficiency and raise your bottom line.

Reflecting our commitment to providing complete solutions for our customers' needs, physical damage insurance is available through our affiliate company, Diversified Agrisurance Company (DAC). DAC is the largest insurer of center pivot irrigation equipment in the United States, and they offer the most comprehensive physical damage insurance product in the industry. DAC's replacement cost coverage policy covers a wide variety of perils. DAC has the fastest claim service in the industry, because in most cases, your Valley dealer is the claims representative. This product provides the best coverage available for all your Valley technology upgrades or new Valley purchases.

Diversified Financial Services is proud to be the only Valleyauthorized finance and insurance provider. Our years of experience, specializing in irrigation finance and insurance, have given Diversified the ability to recognize and meet the needs of every operation. Ask your Valley dealer how DFS and DAC can customize a finance and insurance program for your next Valley purchase.

Diversified Financial Diversified Agrisurance

DIVERSIFIED FINANCIAL SERVICES (DFS) HAS BEEN PROVIDING RETAIL FINANCING AND INSURANCE SERVICES TO VALLEY IRRIGATION CUSTOMERS FOR OVER 48 YEARS.



Variable Rate Irrigation



AgSense



Valley ICON smart panel

The Simple Secret to SUCCESS



As irrigation technologies grow ever more powerful and complex, there is one simple piece of hardware that is the gateway to successful pivot automation – control valves. Unlike manual valves that require trips to the pivot point, Nelson hydraulic control valves can be paired with Valley controls to open and close automatically at the command of the pivot panel. Furthermore, hydraulic control valves can prevent water hammer and control pressures to ensure your automated system runs smoothly.

Nelson control valves have over 25 years of field-proven experience, and now with the advent of system automation many growers are just starting to realize their many benefits and uses.



EFFICIENCY

Moving water takes energy, and energy equals money. Nelson control valves have the lowest pressure loss of any valve and are so efficient that they typically outperform valves that are one size larger. This means you keep more money in your pocket by using a valve that is one size smaller than the pipe size. Nelson's new flange adapters allow inexpensive installation in the next larger pipe size without the use of expensive, and often custom made, flanged cone reducers.

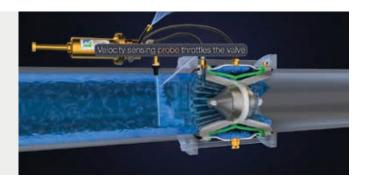


PRESSURE CONTROL

Irrigation systems can be subject to large pressure swings as various pumps, pivots, and end guns are cycled on/off, which can damage system pipes and components. The control valve at the pivot point can be fitted with a pressure control pilot to maintain constant downstream pressure regardless of changes in flow rate or upstream pressure. In fact, researchers at the renowned Irrigation Training & Research Center at Cal Poly in San Luis Obispo, CA recently found the Nelson valve to be the most accurate and efficient valve for pressure regulation.¹

FLOW CONTROL

Electrically operated valves are nothing new, yet many growers are still accustomed to using a butterfly valve to manually throttle the system during start-up. This time-consuming step can be eliminated with a Nelson rate-of-flow pilot installed directly on the control valve to automatically slow-fill the system. This pilot uses a velocity sensing paddle to prevent water hammer by throttling the valve until the system is filled.



PRESSURE RELIEF

The first rule of automation is pressure relief! There is nothing better than being able to watch your pivots turn on and off from your smartphone... until your 4-year old son borrows your phone. At that point, the value of pressure relief is realized! Nelson hydraulic control valves can be fitted with a sustaining/relief pilot and easily set to the exact pressure at which they should open. Unlike standard, spring-loaded, "pop-off" style pressure relief valves, hydraulic valves are accurate, reliable and easy to adjust.

¹ Burt, C.M. and K. Feist 2013. Low-Pressure Testing: Pressure Regulating Valves. Irrigation Training & Research Center, California Polytechnic State University, San Luis Obispo, California, USA. Report R13-003. See also 2013 Proceedings of the Irrigation Association Show, Austin, TX.

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Data - Leads to Smarter Irrigation



Information is one of the most powerful tools growers have in their arsenal – and the methods we use to gather it are always advancing.

These days, growers can gather data about soil moisture, aerial imagery, weather conditions, yield mapping and more. They can enter their data into a program or hub to analyze it, and then use that information to decide how and where to plant, what to plant, the best time to fertilize, and of course, the best way to irrigate.



Ashley Anderson, Valley Irrigation Product Manager, says irrigation ¢lata is easy to gather with today's technology.

"Both AgSense and BaseStation3 gather near real-time data from the field," she says. "Growers use this data to determine when to irrigate and the proper amount to apply, using water d power more economically."

According to Anderson, a challenge that growers face is how to use the data they collect.



"It can be quite overwhelming," she says. "There is so much to sort through, and they're out trying to run daily operations as well. That's why Valley is always working on continuous improvement to turn data into information, leading towards smart irrigation products. We want to make it as easy as possible to use the data productively."

Anderson points out that growers interested in learning more about the technology and data available to them have many resources. They can learn from studies published through the University of Nebraska-Lincoln, trade shows, their own water districts, and at **irrigation.education.**

"As software data progresses, growers will have more information available to them, especially with soil science," Anderson says. "They'll be able to provide exactly what the crop needs for optimal plant health. There is so much potential, and the proper use of data can only improve water application for better crop yield and quality."



Valley Irrigation Run Time

- Easily calculate pivot irrigation cycle times
- Save time with increased efficiency
- Compatible with any pivot brand





ssociate Product Manager

IMPROVING WATER USAGE THROUGH NEW TECHNOLOGY

An exclusive partnership with Trimble®

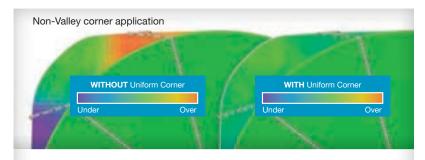
As growers search for more efficient ways to improve crop health and increase yields, Valley Irrigation provides new ways to make that happen. Valley is pleased to introduce Trimble Irrigate-IQ[™] VRI and Trimble Irrigate-IQ Uniform Corner, available only through your Valley dealer.

"This new partnership between Valley and Trimble provides growers the total package," says Craig Bell, Valley Irrigation Associate Product Manager. "They can still benefit from the excellent customer service and knowledge that only Valley provides, and they'll have Trimble's industry-leading GPS-based technology. It's a win-win."

While Valley will continue to offer and support VRI Speed Control and VRI Zone Control, Trimble Irrigate-IQ takes VRI to the next level, providing control to individual nozzles.

Here are the basics of how it works: The grower or an agronomist uploads the geo-referenced shape file. Trimble Irrigate-IQ then controls the valves on the irrigation machine based on proprietary algorithms to apply the exact amount of water, fertilizer or chemical the crop requires.

Valley Director of Product Management Troy Long says, "It can control individual nozzles using a prescription based on soil type, topography, rainfall and more. It's extremely precise."



Irrigate-IQ Uniform Corner Solution

For crops that are most sensitive to water application, the Uniform Corner is a new option and provides the ability to increase acres and improve yield with precise uniformity under a corner machine.

"Historically, competitor's corner machines have demonstrated problems with over-watering and under-watering as the corner goes out and back," Bell explains. "But the Trimble Irrigate-IQ Uniform Corner uses advanced algorithms to provide precise, even uniformity no matter what the position of the arm is."

This technology will provide growers with a more consistent application, so the crops under corner systems benefit as much as the crops under the pivots themselves.

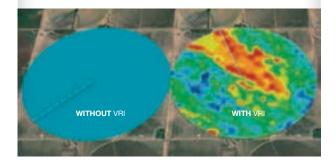
"It's especially beneficial for fields with irregular boundaries and high-value crops, like potatoes and other vegetables, where improved water application uniformity can help to increase crop yield and quality," Bell explains.

VRI with Trimble Irrigate-IQ

With Irrigate-IQ VRI, you can precisely target water application across the field. It gives you control over each individual nozzle based on the irrigation plan and pivot location to provide the highest level of accuracy for managing your variable areas.

The only requirement for a pivot to use Trimble Irrigate-IQ VRI is to have either a variable frequency drive (VFD) or variable speed drive (VSD) pump. These pump controls provide proper flow and pressure to accommodate varying application depths as the pivot moves across the field.

"VRI Zone and VRI Speed Control are both really good options for VRI, but they just don't provide the kind of granular precision of Irrigate-IQ," says Bell. "The best option just depends on the field and the crops grown."



Trimble.

Why should you consider Trimble Irrigate-IQ?

- You benefit from Valley service and expertise and the latest Trimble Irrigate-IQ technology
- The most precise, uniform application in the market today
- Individual nozzle control for VRI and corner applications
- Improved crop quality and potential for greater yields
- More efficient water and energy use
- Reduced runoff

Sent compliments of your Valley dealer.



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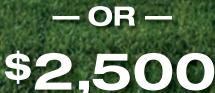
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*Buyer has the choice of one of the following offers: Instant \$2,000 Cash Rebate offer applies to the purchase of any 5000, 7000 or 8000 series machines with three drive units or more and includes a pivot point, control panel and sprinkler package; or, \$2,500 Control Technology Rebate applies if an ICON10, ICON5, ICON1 or AutoPilot panel is added at the time of the machine purchase and includes a pivot point or linear cart and sprinkler package. Offers end December 31, 2017. Machine must be delivered by January 26, 2018 to qualify.