



**TECHNOLOGY
PRODUCT
CATALOG**

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Connected Crop Management

Valley 365®: A single sign-on platform to save growers time and resources

Valley 365 takes the functionality of existing technology like AgSense®, Valley Scheduling™, Valley® Variable Rate Irrigation (VRI) and Valley Insights®, and integrates these tools into one location. Valley 365 is organized into intuitive modules:



Forecast & Plan

Informed decisions require complete data. Growers can Forecast & Plan water delivery better with Valley Scheduling technology.

[Learn more about the features and benefits of Valley Scheduling on page 24.](#)



Monitor & Control

Once growers make irrigation decisions, they need to be sure those decisions are implemented correctly. The tried-and-true power of AgSense technology gives growers greater control in real time so they can manage everything from pumps to pivots and more.

[Learn more about AgSense, including part numbers for Monitor & Control devices, beginning on page 36.](#)



Optimize & Apply

Every field is different. Even within fields, there are variations in soil type and topography. With Valley Variable Rate Irrigation (VRI), growers can Optimize & Apply their water in the most accurate way possible, based on field-specific irrigation prescriptions.

[Learn more about Valley VRI beginning on page 18.](#)



Access to Valley Insights®

Growers still like to walk the fields, but not every potential issue is visible soon enough or with the naked eye. Using various types of imagery and state-of-the-art artificial intelligence algorithms, Valley Insights, powered by Prospera, virtually scouts fields for crop health concerns.

* Currently available in select regions



Why should growers switch to Valley 365?

Because it's:

Efficient – Existing applications will seamlessly integrate, allowing them to use a single sign-on to access all solutions.

Accessible – This end-to-end cloud-based platform offers a simpler, more intuitive user experience, anytime and anywhere.

Intelligent – Leverage equipment, environment and agronomy data more effectively, in real time.

Scalable – This innovative software solution will enable them to add features effortlessly, and is customizable based on changing needs.

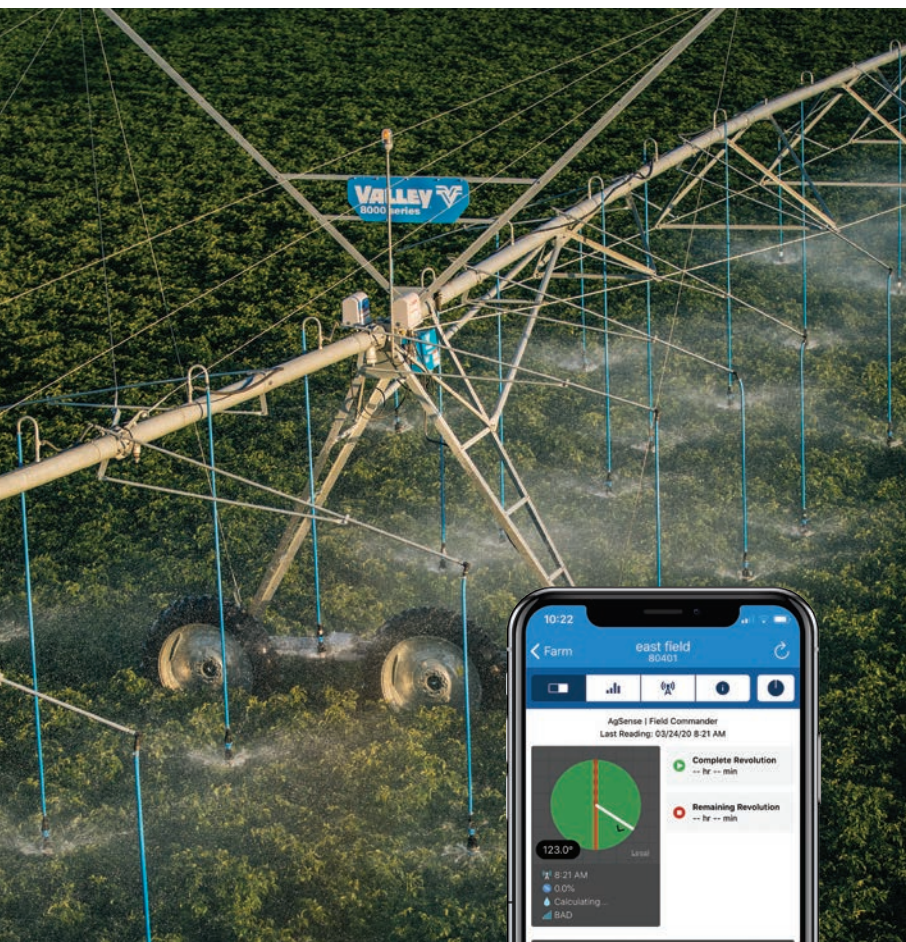
Secure – Built upon the latest cloud-based technology, it provides unlimited data storage, offers enhanced support capability and is extremely secure.



We are committed to the privacy of growers' ag data and proud to report that Valley 365 is certified Ag Data Transparent.

Field Commander®

The industry-leading Field Commander is installed on more pivots than all competitive units combined. Compatible with virtually all linear and center pivots, it is available in multiple configurations that offer a wide range of options.



- Save time and money – Turn any smartphone, tablet or PC into a virtual control panel that can monitor and control irrigation machines from anywhere in the world
- Economical – Provides the functionality of a digital panel while still working with any brand of pivot or linear (lateral)
- Flexibility – Manages a mixed fleet of hydraulic and electric irrigation machines, bringing them into a single web dashboard
- Growers can protect their investment – Cable theft monitoring and crash zone/overlap alerts
- Multiple programming options – Numerous timed start and timed stop commands; single or dual stop-in-slot; machine speed by choice of Percent Timer, Pivot Angle, Application Rate, Hours per Revolution, or Hours to Stop Angle; Remote Speed Override; and more
- Makes recordkeeping easier – Comprehensive management and irrigation reporting
- Patented GPS technology



Remote Solutions for Full Control of Irrigation Machines

If it's a simplified model your growers are after, **Field Commander Lite** allows them to simply monitor and stop irrigation machines. They can still set up alerts and view real-time information.

ITEM	PART NUMBER
Field Commander Monitor and control electric pivots. Can be wired for Basic, Enhanced or Pro Service Levels.	FC
Field Commander Lite Only Allows for Monitor & Stop Features	FC-Lite
Field Commander 24v Start Designed for 24v DC Pivots, Enables Remote Monitor, Start, Stop & End Gun Features. Includes one 24v Start Kit, Stop Kit & one voltage regulator	TL-24VS
Field Commander 24v Stop Enables Remote Monitor and Stop Features. Includes one 24v Stop Kit & one voltage regulator	TL-24V
Field Commander Solar Enables Remote Monitor	TL-Solar
Field Commander View Solar Powered, No Wiring. Includes Pressure Transducer, Allows for monitor only features	FC-V

Compatible Sensors

ITEM	PART NUMBER
Pressure Sensor (Choose 1 sensor per device)	
200 PSI (13.79 bar) Transducer	IR-PTK
100 PSI (6.9 bar) Transducer ⁺	
250 PSI (17.2 bar) Transducer ⁺	
Switch Closure (Pressure Switch) ⁺	
Valley Transducer ⁺	
Digital 1 (Choose 1 sensor)	
Rain Bucket	ARB
ET Guage (evapotranspiration) ⁺	
Digital 2	
Rain Bucket	ARB
ET Guage (evapotranspiration) ⁺	

⁺ Not sold through Valley

Field Commander Annual Subscription

Monitor - \$100 (USD)/year
 Basic - \$200/year
 Enhanced - \$250/year
 Pro - \$300/year

CommanderVP® For all Valley pre-ICON series control panels¹

ICON Link For all Valley ICON® series control panels



Valley CommanderVP® provides full remote programming of control panel functions and monitoring of irrigation machines via Valley 365. It mounts inside the panel, is delivered fully activated, and processes commands at industry-leading speeds.

Valley Commander VP

Complete Control & Monitoring

- Control irrigation machine from mobile device or desktop.
- Access real-time status of irrigation machines and other inputs.

Comprehensive Reports

Broad range of user-definable reports, including:

- Water volume applied by field or angle
- Acres/inches applied by field or angle
- Pump and auxiliary output run times by field or angle

Field-Changeable Cell Modem

- Replaceable daughter cards are compatible with virtually all cellular systems around the globe
- Allows change of cell carrier if module is moved to a different field not served by current carrier
- Prevents changes in cell technology, service territories or phone company mergers from making module obsolete

Email & Text Alerts

- Broad range of user-selectable text message and email alerts, including: Start, Stop, Direction Change, Stuck, Safety, Pressure, Power On/Off, Water On/Off, Auxiliary On/Off, Low/Bad Battery and Cable Theft

Third-Party API Links

- Current API monitoring links to multiple ag software partners, including: Ag Connections, CropMetrics, DN2K, iCropTrak, MapShots, Servi-Tech, HydroBioARS, AgriTrend, Granular Ag and Irrinet

Variable Rate Irrigation (VRI) Capability

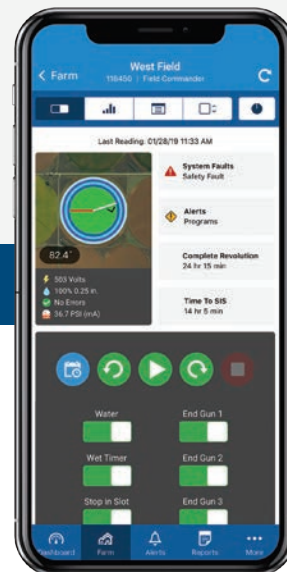
- Increase the efficiency of water and chemical application
- Optimize yields
- Upload VRI prescriptions remotely

Cable Theft Detection & Optional Pump Control²

- Cable theft kit for year-round monitoring and alerts of cable theft in progress
- Auxiliary modules to fully automate control of remotely located pumps and chemigation

ICON Link

ICON Link is built into Valley ICON smart panels and provides full remote irrigation management from anywhere in the world. Monitor and control your irrigation machines at industry-leading speeds via the Valley 365 connected crop management platform.



Remote Solutions for Full Control of Irrigation Machines

ITEM	PART NUMBER
CommanderVP Remotely monitor and control Valley digital panels	CVP
Theft Kit Theft monitoring kit for CommanderVP	CVP-Theft

Compatible Sensors

ITEM	PART NUMBER
Analog 1	
Temperature	TEMP
Digital 1 (Choose 1 sensor per input)	
Rain Bucket	ARB
ET Guage (evapotranspiration)*	
Digital 2	
Flow*	

* See pages 58-59

CommanderVP Annual Subscription

\$300 (USD)/year

Valley Exclusive ICON Link Multi-Year Licensing

Now available on new orders and existing ICON Link devices through the AgSense User Site

One Year - \$300 (USD)

Three Years - \$855

Five Years - \$1,350

Ten Years - \$2,400

Connectivity Guarantee for the length of the term!

Guarantees hardware related to cellular connectivity will be replaced at no cost in the event changes in cellular technology and service providers occur. The ICON Link device is covered under the standard two-year warranty. Any previously purchased ICON Link device can also add a multi-year license from the AgSense User Site. The connectivity guarantee is not valid for the one-year license term.

1. Firmware upgrade or Valley parts kit may be necessary; Select Panel – Monitors but cannot change end guns remotely. Requires v1.9 or higher firmware and serial port; Select2 Panel – Compatible with all firmware versions; Pro Panel – v6 or higher firmware required; Pro2 Panel – v8.02 or higher firmware required; AutoPilot – v1.11 or higher firmware required; Touch Pro – Valley “Y” serial adapter or a parts kit required if GPS equipped.
2. Additional hardware or subscription required.

Crop Link® Pro & Lite

Valley Crop Link provides growers with the flexibility to monitor and control many types of equipment on the farm with one simple device. Options include flowmeters, pumps, weather sensors, tank monitors, electric motors and many others enabled by the easily configured interface.

Crop Link Features:

- Monitor and alert on/off status of electric motors, power circuits and generators
- Monitor and control multiple pump, and tank-level systems
- Effective for grain theft detection when attached to a bin unloading motor
- Ideal for subsurface drip irrigation systems

How Crop Link Works

Valley Crop Link sends the data it gathers from the equipment to the Valley 365 servers, where it is then merged with other Monitor & Control solutions' data for viewing of all inputs on a single, easy-to-read page.



Modem-to-Modem Pump Control

In addition to the many other features and benefits of Crop Link, it can also be used for modem-to-modem pump control.

- Competitors can only control pumps at the pivot panel via buried pump wires or radios
- Distance and line of sight are not an issue with modem-to-modem
- There is no annual fee for the Crop Link when configured for automatic pump control
- Pumps will automatically shut down if one of the devices on the pivot or pump loses communication
- No need for extra radio parts or kits
- Manual, Full Auto and Auto Off control options

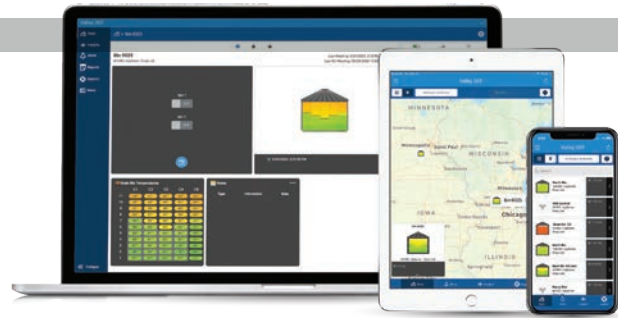
ITEM	PART NUMBER
Crop Link Pro Available in AC, DC or Solar. Includes four control relays and one 120v monitor relay	CL-Pro
Crop Link Lite Available in AC, DC or Solar. Includes two control relays.	CL-Lite

Crop Link Pro Annual Subscription

\$150 (USD)/year - No annual subscription when configured for remote pump control through another Valley device.

Crop Link Lite Annual Subscription

\$150 (USD)/year - No annual subscription when configured for remote pump control through another AgSense device.



Compatible Sensors

ITEM	PART NUMBER
Analog 1-4 (Choose 1 sensor per input)	
200 PSI (13.79 bar) Transducer	IR-PTK
Tank Monitor - Pressure Transducer (non-explosive)	G3
Humidity	HUM
Decagon Leaf Wetness Sensor	LWS
Solar Radiation	SRS
A2-X 200 PSI Transducer (explosive oils, liquids & gasses)	A2-X
Barometric Pressure	BPS
100 PSI (6.9 bar) Transducer ⁺	
250 PSI (17.2 bar) Transducer ⁺	
30 PSI (2.0 bar) Transducer ⁺	
Switch Closure (Pressure Switch) ⁺	
Irrrometer 200 PSI (13.8 bar) Transducer ⁺	
Rochester R3D (Tank Percentage/Gallons) ⁺	
Surefire 400 PSI (27.6 bar) ⁺	
Voltage Input ⁺	
Scaled Voltage Input ⁺	
0-6v CT Amps ⁺	
Analog 5-6 (Choose 1 sensor per input)	
Wind Direction	ART
Temperature	TEMP
eTape Liquid Level Sensor ⁺	
4-20mA ⁺	
Digital 1-2 (Choose 1 sensor per input)	
Rain Bucket	ARB
Wind Speed	ART
Flow [*]	
ET Guage (evapotranspiration) ⁺	
Output	
0-10 VFD Injection Control ⁺	

⁺ Not sold through Valley

^{*} Not sold through Valley. See pages 58-59

Soil Moisture Monitoring

Aqua Trac Pro & Lite

Valley Aqua Trac gives growers the power to track and measure soil moisture conditions in their fields remotely, so they can manage their irrigation operations efficiently and effectively. The easy-to-understand user interface to the Aqua Trac makes it possible to monitor and control all their Valley soil moisture-monitoring devices from virtually anywhere in the world.

**Only available for sale to Valley-Certified Agronomic Dealers.
Contact your Valley Technical Sales Territory Manager
for details how to become certified.**

Better Information Leads to Better Results

- Easily implement irrigation decisions based on soil moisture profile with the click of a button.
- Read nearly any major soil moisture probe brand, including AquaCheck, Sentek, Decagon and Watermark.
- Data is pushed directly to easy-to-read graphs on the Valley 365 dashboard.
- View moisture conditions on Valley 365.com or with the Valley 365 app on a smartphone or tablet.
- Take the guesswork out of subsurface soil moisture content to prevent irrigation mistakes, saving time, water and money.
- Keep fertilizer and crop protection chemicals in the desired root zone to prevent ground water contamination.
- Automatically share results with agronomy partners in simple electronic graphs and charts.
- Monitor root zone activity, and use irrigation rate and timing to optimize root development.
- Enhance irrigation scheduling efforts with ground-truth soil capacity data
- Available through multiple agronomic partners as part of their irrigation management program.
- Aqua Trac Pro reads a digital capacitance probe and/or Watermark sensors, drip pressure transducer, flow, temperature, rainfall and tank/pond levels.



- Aqua Trac Pro reads a digital capacitance probe and/or Watermark sensors, drip pressure transducer, flow, temperature, rainfall and tank/pond levels
- Aqua Trac Lite reads a digital capacitance probe, flow, temperature and rainfall.



ITEM	PART NUMBER
Aqua Trac Pro Solar-powered device that utilizes a soil moisture probe and/or individual sensors to read the soil moisture percentage, volumetric water content, temperature and salinity of the soil.	AT-Pro
Aqua Trac Lite Solar-powered device that utilizes a soil moisture probe to read the soil moisture percentage, volumetric water content, temperature and salinity of the soil.	AT-Lite

Compatible Sensors

ITEM	PART NUMBER
Analog 1-4 (Choose 1 sensor per device)	
200 PSI (13.8) Transducer	IR-PTK
Tank Monitor – Pressure transducer (non-explosive)	G3
Switch closure (Pressure Switch) ⁺	
Watermark 200 SS – 2 Wire Soil Moisture Sensor ⁺	
Decagon 10HS Soil Moisture Sensor ⁺	
Decagon GS1 Soil Moisture Sensor ⁺	
Specturm SM 100 Soil Moisture Sensor ⁺	
Rochester R3D Sensor (tank percentage/gallons) ⁺	
Analog 5 (Choose 1 sensor)	
Temperature	TEMP
eTape liquid level sensor ⁺	
Digital 1 (Choose 1 sensor)	
Rain Bucket	ARB
Flow [*]	
ET Guage (evapotranspiration) ⁺	

⁺ Not sold through Valley

^{*} Not sold through Valley. See pages 58-59



Aqua Trac Pro Annual Subscription

\$150 (USD)/year

Aqua Trac Lite Annual Subscription

\$150 (USD)/year

Weather Monitoring

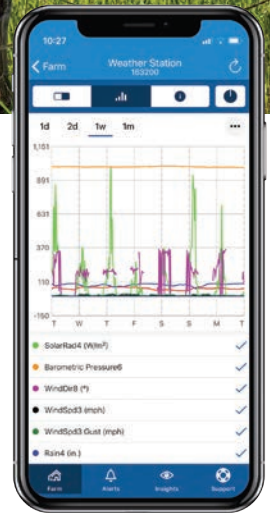
Weather Station

Valley Weather Station is an important tool to detect current weather conditions and analyze historical weather patterns. It can also assist with other aspects of crop management, such as irrigation scheduling.

- View weather data anytime, anywhere via Valley 365
- Integrated sensors and enclosure with a built-in solar panel
- Sensors for wind direction, wind speed, temperature, humidity, rain, barometric pressure and solar radiation
- Mounting hardware for a tripod, pole or t-post (tripod/pole/t-post not included)

Options

- A second rain bucket or an ET gauge (choose one)
- A second temperature sensor (e.g., indoor temperature, outdoor temperature, soil temperature, etc.)
- A flowmeter



Access to accurate weather data is one of the best ways to ensure increased yields.

Valley Weather Station also offers:

- Easy installation – a simplified wiring process makes for quick setup.
- Mobile access – weather data is displayed alongside your irrigation, soil moisture and grain bin data, all on the same dashboard.
- Increased productivity – real-time text message alerts about changing weather conditions can improve your labor and farm machine efficiency, allowing you to allocate resources where they're needed most.
- Informed decisions – having easy access to real-time heat, humidity and frost conditions will result in better decision making during harvest and when working with livestock.
- Better accuracy – wind data keeps expensive chemicals where you need them when spraying crops.
- Field-specific data – receive information directly from your field.
- Peace of mind – sleep easier, save trips to the field and use water more efficiently by receiving alerts about changing weather conditions.
- Connected Crop Management – Integrates with Valley Scheduling and Valley 365 – available on the App Store and Google Play

ITEM	PART NUMBER
Weather Station Solar-powered Weather Station with weather sensors included*	AWS

Compatible Sensors

ITEM	PART NUMBER
* Standard (not optional) sensors pre-wired	
Wind speed	Included
Wind direction	Included
Temperature	Included
Humidity sensor	Included
Barometer	Included
Rain bucket	Included
Solar radiation	Included
Optional sensors (not included) sensors pre-wired	
Second rain bucket	ARB
Second temperature sensor (e.g. indoor temperature, outdoor temperature, soil temperature)	TEMP
ET Guage (evapotranspiration) ⁺	
Flow meter ⁺	

⁺ Not sold through Valley

Weather Station Annual Subscription

\$150 (USD)/year

BaseStation3

Total Control – Anywhere

Valley BaseStation3 gives growers unprecedented control over their operation. It's the industry's best on-premises solution for irrigation management in challenging terrain. Manage and control all irrigation equipment from any smartphone, tablet or desktop computer.

- Native apps available for iOS and Android devices
- Google Maps™ integration
- Monitor and control devices from anywhere*
- Provides alert notifications and instant, at-a-glance status updates
- Access alarms and status updates in real time
- Stay up to date with text, email or push notifications
- Soil moisture view shows soil moisture content by layers**
- Operational view allows you to see what each machine is doing
- Data radios, cell modems, or Internet protocol technologies
- Internet-connected or stand-alone installation
- Advanced data exports (applied water, equipment, etc.)
- Patented Valley Cruise Control™ and step programs for accurate rotation
- Destination ETA calculates how long it will take a machine to reach a specific point in the field
- Easily adjustable end gun templates for quick and easy setting changes
- Tiered levels of access and security for designated users
- Allows multiple and simultaneous users



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Valley Irrigation Exchange®

- Technology has changed the way you operate your farm, making it simpler in some ways and more complex in others. The introduction of multiple software systems creates streams of data that can be difficult to integrate.
- Valley Irrigation Exchange solves these problems by making your irrigation data available across platforms, allowing you to make informed, data-driven decisions regarding water and nutrient management.
- Allows you to manage and monitor your irrigation equipment from within other farm management systems
- Lets you share irrigation data with your agronomist, industry-leading seed companies, equipment manufacturers and other providers
- Makes irrigation management tools available across multiple software platforms
- Leverages irrigation data alongside other farm information for maximum irrigation efficiency
- Executes recommendations developed in other partner software programs
- Provides a truly comprehensive approach to irrigation management

Control Your Data

- You select partners and grant access to your data
- You identify what data you want to share
- You make decisions and actively manage your irrigation strategy
- Conforms to all applicable software standards

How to Order:

Contact 'BaseStation@valmont.com' for designing, quoting and ordering new BaseStation3 installations or adding RTUs to existing installs.

* Requires Internet

** Using Aqua Trac integration

Variable Rate Irrigation (VRI)

Every field is different, with varying soil types and topography. Applying the same amount of water across your entire field doesn't always make sense. Valley VRI takes the advantages of traditional center pivot irrigation to the next level.

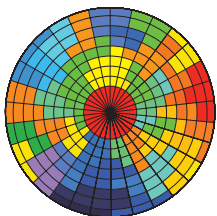
With easy-to-use Valley VRI software, growers can irrigate more efficiently, without compromising yield potential by over- or under-watering.

Valley offers growers a choice of customizable VRI solutions: Speed Control, Zone Control and Individual Sprinkler Control (VRI-iS).



Valley VRI Speed Control

Utilizes existing hardware and adjusts the speed of the center pivot to achieve the application depth desired, based on the customized irrigation prescription. Speed Control comes standard with all Valley ICON panels.

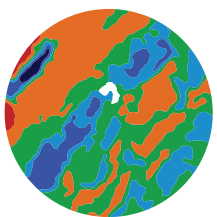


Valley VRI Zone Control

Breaks a sprinkler package into zones to create more than 5,000 sectors, maximizing water application efficiency in more challenging fields, such as those with varying topography, ditches, bogs, varying soil types and canals.

Valley VRI Zone Control for Linears (Laterals)

- This option is ideal for rectangular fields with different soil types and non-irrigated areas.
- Research institutions often use this option in test fields.



Valley VRI-iS

The most precise VRI option available, dividing a field into sectors every 0.1 degree. Individual sprinkler control for maximum prescription resolution. Customized prescriptions utilize GPS positioning, shape files and sprinkler package data to apply water only where growers want it, reducing over/under watering and runoff.

Growers can:

- Increase yields by bringing precision irrigation to all areas of their fields
- Create a prescription with the click of a button
- Work remotely, monitoring and controlling VRI water application from wherever they happen to be
- Wirelessly upload prescriptions from computer through the cloud, directly to ICON panels
- Save on water and pumping costs
- Increase efficiency of chemical application
- Protect soil health by minimizing runoff and deep percolation

VRI Zone Control Part Numbers

DESCRIPTION	COMMENTS	PART NUMBER
Valley VRI V8.55 Prescription Software	Included in package L19, L23 & L25	KA01401
OPMC5 Universal PLC Towerboxes		
Pivot Panel and Last Hardware OPMC5 - Pro2	One per machine	0000L23
Pivot Panel and Last Hardware OPMC5 (w/GPS - ICON)	One per machine	0000L19
Linear Panel and Last Hardware OPC5	One per machine	0000L25
Valley VRI Tower Box Inter OPMC5	One per two zones	1815435
VRI Tower Box Filter	One per VRI tower box	KA09995
Air Compressor Kit 6 5/8" (168.28 mm)	One per 50 sprinkler valves	0000F49
Valve Orientation Horizontal - Hardware Selections		
Valve hardware, 1 drop per valve Aquamatic	One per sprinkler location	0000H60
Valve hardware, 2 drops per valve Aquamatic	One per two sprinkler locations	0000H80
Valve hardware, 1 drop per valve Buckner	One per sprinkler location	0000L05
Valve hardware, 2 drops per valve Buckner	Valve hardware, 2 drops per valve Buckner	0000L06
Valve Orientation Vertical - Hardware Selections		
Aquamatic valve, no drain	One per sprinkler location	0232482
Buckner Superior sprinkler valve, no drain	One per sprinkler location	0232574
3/4" x 2" Galv Nipple	One per sprinkler location	0211014
Pilot Tubing and Tube Hardware		
.304 OD x .180 ID x 1,000' (304.8 m) Tubing	Sum the length of tube from each tower box to the end of each zone	0272057
.304 OD x .180 ID x 500' (152.4 m) Tubing	Sum the length of tube from each tower box to the end of each zone	0272050
200' (60.96) x .304 OD Tubing	Sum the length of tube from each tower box to the end of each zone	0272036
Crimp Tool		0178008
Oetiker Crimp Clamp for Tubing	One per sprinkler location	0271115
Wire Ty	One per sprinkler location	0314225
IRR MS 1/4 Union Tee		0270002
VRI Tower Box Mounting Selections*		
Pkg VRI Tower Box Drive Unit Mount	One per VRI Tower Box	0000H21
Pkg VRI Tower Box Pipe Mount 6 5/8"	One per VRI Tower Box	0000H24
Stand Pipe Mounting Selections		
Pkg VRI Stand Pipe and Mount 6 5/8"	One per VRI Tower Box	0000H63

* **VRI tower box mounting selections:**
Spans with floating alignment must use pipe mount hardware.

Labor Hours Estimate

Panel and Last Hardware - 5 hours
 VRI Tower Box - 1 hour / box
 Sprinkler Valve; New Machine Install - .25 hours / valve
 Sprinkler Valve; Aftermarket Install - .50 hours / valve

Variable Rate Irrigation(VRI)

VRI-iS Part Numbers

Panel Hardware

DESCRIPTION	COMMENTS	PART NUMBER
Pkg VRI-iS Panel, Collector Ring, GPS Box, 49' (14.9m) Cable For PRO2 V9.02	One per machine	0000K30
Pkg VRI-iS Panel, Collector Ring, GPS Box, 49' (14.9m) Cable for ICON	One per machine	0000K51

Valve Fittings

DESCRIPTION	COMMENTS	PART NUMBER
Pkg VRI-iS Valve Assembly Install Fittings	One per sprinkler (install valve horizontal)	0000K31
Pkg PolySpan VRI-iS Valve Hardware	One per sprinkler (install valve horizontal)	0000M36

Valve Assemblies

DESCRIPTION	COMMENTS	PART NUMBER
ELC MS VRI-iS 3/4" Plastic Valve ASSM Cable for 10' (3.0m) Spk Spacing	One per sprinkler	03E4493
ELC MS VRI-iS 3/4" Plastic Valve ASSM Cable for 12.6' (3.8m) Spk Spacing	One per sprinkler	03E4494

Cables

DESCRIPTION	COMMENTS	PART NUMBER
Pkg VRI-iS Cable for 10' (3.0m) Coupler Spacing, Adaptor, Wire Tye	Cables for wide spaced sprinklers. Sprinkler spacings available are; 12.6' (3.8m), 10' (3.0m) or 2.5' (0.76m)	0000K33
Pkg VRI-iS Cable for 2.5' (0.76m) Coupler Spacing, Adaptor, Wire Tye	Cables for wide spaced sprinklers. Sprinkler spacings available are; 12.6' (3.8m), 10' (3.0m) or 2.5' (0.76m)	0000K34
12.6' (3.8m) Cable	Cables for wide spaced sprinklers. Sprinkler spacings available are; 12.6' (3.8m), 10' (3.0m) or 2.5' (0.76m)	03E4109
Pkg VRI-iS Cable for 12.6' (3.8m) Coupler Spacing w/Wire Tye (no adaptor)	Cables for wide spaced sprinklers. Sprinkler spacings available are; 12.6' (3.8m), 10' (3.0m) or 2.5' (0.76m)	0000K62



Power Supply

DESCRIPTION	COMMENTS	PART NUMBER
ASSM VRI-iS Power Supply Tower Box	One power supply per 50 sprinklers maximum and 1,000' (304.8 m). Panel pkg has one power supply.	1815252
VRI GPS Tower Box Drive Unit Mount Hardware	Same number as power supply boxes	0000H21

Partial Machine Cable/Hardware

DESCRIPTION	COMMENTS	PART NUMBER
4-Conductor Shielded Control Cable	Cable to connect pivot panel to first VRI-iS valve, ft	0314828
Tower Junction Box	Tower box for VRI-iS cable across drive unit	1812410
KTA VRI Tower Box Drive Unit Mount	Tower box for VRI-iS cable across drive unit	KA09936

Pivot Filter and Hardware

DESCRIPTION	COMMENTS	PART NUMBER
Clemons 1200 Filter (75.72 lps) 8 5/8" (219.10 mm) Pivot - ANSI Flange Inlet 1/32" (0.79 mm) Screen	Maximum flow = 1,200 GPM (75.72 lps) - 8 5/8" Pivot Point	Drop Ship
Clemons 2000 Filter (126.17 lps) 8 5/8" Pivot - ANSI Flange Inlet 1/32" Screen	Maximum flow = 2,000 GPM (126.17 lps) - 8 5/8" Pivot Point	Drop Ship
GAE MS 0-30 PSI (2.07 Bar) Pressure Gauge	One gauge for inlet and one gauge for outlet of filter	0231122
GAE MS 0-60 PSI (4.14 Bar) Pressure Gauge	One gauge for inlet and one gauge for outlet of filter	0232442
GAE MS 0-100 PSI (6.90 Bar) Pressure Gauge	One gauge for inlet and one gauge for outlet of filter	0232501
Fit PB 3/4 x 1/4 GV Reducer	Required for filter inlet gauge	0244025
Fit PB 2 x 1/4 GV HEX Reducer	Required for filter outlet gauge	0244032
Flange 8.625 B.C. x 7.90 I.D.	Filter outlet flange	9361408

Labor Hours Estimate

Panel Package - 5 hours
Sprinkler Valve; New Machine Install - .25 hours / valve
Sprinkler Valve; Aftermarket Install - .50 hours / valve

Custom Water Management Solutions

End-to-end solutions for using water, energy and money more efficiently.

Valley has led scientific advancement in irrigation since the beginning of the industry. Our experience now extends to a comprehensive approach that optimizes production and offers real-time data from beginning to end.

Because agricultural water expertise should revolve around more than just center pivots, we offer an experienced team of engineers, agronomists, soil scientists and hydrogeologists to help with virtually any water-related issue, managing the process from design through implementation.

This integrated approach can identify ways to maximize yield while saving valuable time and resources. Think of it as a simplified “one-stop-shop” for every aspect of science-based water management, including guidance through any issues that might slow down growers’ progress.

SCIENCE



Systems and services that help take the guesswork out of agriculture.

- Irrigation Assessment and Feasibility Studies
- Wastewater Treatment and Reuse
- Soil Assessment and Crop Management Plans
- Water Quality Monitoring and Assessment
- Surface and Groundwater Studies/Modeling
- Irrigation Scheduling

ENGINEERING



Developing ways to help growers use resources more efficiently.

- Water Supply and Treatment
- Turnkey Construction
- System Operation
- On-Site Wastewater Treatment
- Solar Power
- Irrigation and Pumping System Design
- Water Delivery Design

REGULATION



Helping growers stay in compliance – and keep moving forward.

- Permitting and Compliance Reporting
- Data Management
- Water Rights
- Stormwater Planning and Management
- Spill Prevention, Control and Countermeasure Plans

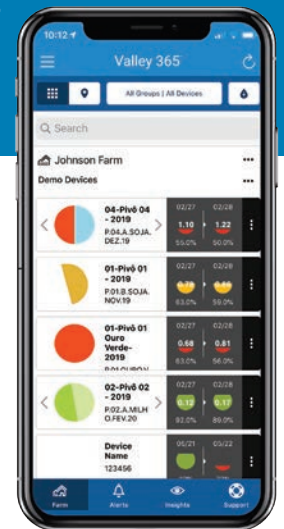
Irrigation Scheduling

Valley Scheduling is advanced management software that provides easy-to-understand irrigation recommendations based on real, scientific data about soil, crop type, development stage and weather conditions. It's proven technology to help make more informed decisions about water use and crop health.



Water in the Right Place at the Right Time

- **Simple to use** – Intuitive dashboard accessible via your smartphone, tablet or desktop computer
- **Save time** – Eliminate complex calculations you used to have to do yourself and reduce time spent in fields manually gathering information
- **Increase yield potential and profitability** – Use fewer resources by watering and fertigating the right amount in the right place at the right time
- **Improve crop health and reduce disease** – Monitor potential crop stress due to over- or under-watering, and increase production and yield quality
- **Customizable** – Modeled or measured options



Customizable Options for Your Operation

Modeled

Recommendations are developed from a proprietary algorithm with over a decade of proven in-field results with real growers. The algorithm calculates irrigation needs based on weather, soil, crop and other data entered into the application by an agronomy expert. There is no physical soil probe in the field.

Measured

A certified dealer or agronomy expert connects soil moisture sensors and weather station devices in the field to the grower's software, then monitors the results, offering the most accurate data and forecasting available to calculate your irrigation schedule.

Choose the Features Your Growers Need:	Modeled	Measured
Continuous data access via Valley Scheduling web and mobile app	✓	✓
5- to 7-day irrigation forecast, updated daily	✓	✓
In-field sensors with remote monitoring	available	✓
Professional installation, repairs and removal		✓
Professional monitoring of data and calibration by a service expert	✓	✓
Interactive BaseStation3 view	available	available
Site visits periodically during the growing season	✓	✓
Unlimited technical phone support	✓	✓
Season-end water report	✓	✓

Valley Scheduling Parts*

ITEM	PART NUMBER
Weather Station	9364969
Aqua Trac-GSM/Aeris with Solar Kit	9364972
Aqua Trac Lite-GSM/Aeris with Solar Kit	9364975
AGS Rain Bucket	9364929
Sentek Drill & Drop Probe Install Kit (plastic)	0980546
Sentek Drill & Drop Probe Extraction Tool	0980547
Sentek Drill & Drop Probe Tapered Auger 60 cm (24 in)	0980548
Sentek Drill & Drop Probe Tapered Auger 90 cm (36 in)	0980549
Sentek Drill & Drop Probe Tapered Auger 120 cm (48 in)	0980558
Sentek Drill & Drop Probe 60 cm (24 in) SDI-12	0980559
Sentek Drill & Drop Probe 90 cm (36 in) SDI-12	0980560
Sentek Drill & Drop Probe 120 cm (48 in) SDI-12	0980561
Sentek Drill & Drop Probe 60 cm (24 in) SDI-12 TRISCAN	0980562
Sentek Drill & Drop Probe 90 cm (36 in) SDI-12 TRISCAN	0980563
Sentek Drill & Drop Probe 120 cm (48 in) SDI-12 TRISCAN	0980564
Sentek Drill & Drop Probe 60 cm (24 in) SDI-12 RMV CBL	0980550
Sentek Drill & Drop Probe 90 cm (36 in) SDI-12 RMV CBL	0980551
Sentek Drill & Drop Probe 120 cm (48 in) SDI-12 RMV CBL	0980565
Sentek Drill & Drop Probe 60 cm (24 in) SDI-12 TRISCAN RMV CBL	0980552
Sentek Drill & Drop Probe 90 cm (36 in) SDI-12 TRISCAN RMV CBL	0980553
Sentek Drill & Drop Probe 120 cm (48 in) SDI-12 TRISCAN RMV CBL	0980566
Sentek Drill & Drop Probe Prog Cable for SDI-12	0980554
Sentek Drill & Drop Probe Install/Removal Kit for 60 cm (24 in)	0000M21
Sentek Drill & Drop Probe Install/Removal Kit for 90 cm (36 in)	0000M22
Sentek Drill & Drop Probe Install/Removal Kit for 120 cm (48in)	0000M23
Sentek DD SDI-12 Replacement Cable for RMV CBL Probes	03E4694

* Scheduling hardware ordered through AgSense.

Valley ICON Panels

We designed our smart control panels to decrease the time and effort you spend, eliminate unnecessary visits to your field, and give you the control you need to manage your irrigation operation simply and efficiently.



How to Order:

- Step 1:** Select one of the following control panels.
- Step 2:** Select the appropriate SIM Card for GSM Panel.
- Step 3:** Order other components such as encoder, J-Pipes, collector rings and pivot mounting hardware if needed.

ICON10

The ICON10 features the largest touchscreen in the ICON line, with a 10-inch (254 mm), full-color touch display, so you can view and control more right from your screen. The easy-to-use display makes monitoring and controlling every aspect of your pivot simple.

Features:

- 10-inch, full-color touchscreen display
- Intuitive user interface
- AgSense built in – Valley ICON Link installed standard*
- BaseStation3 compatible*
- Variable rate irrigation (VRI) equipped; VRI Speed Control comes standard with no additional hardware needed
- Patented Valley Cruise Control
- Cable theft monitoring*

Now available for linears

*Additional hardware or subscription required.

Benefits:

- Customizable home screen
- Simple operation – set end guns, create and load VRI prescriptions, create programs and more
- Precise and programmable application of water, fertilizers and chemicals
- GPS position readiness
- Auto reverse/auto stop
- With ICON Link, a consistent interface and access to real-time data is available across all of your devices from anywhere in the world through AgSense

ICON5

The ICON5 has many of the same benefits of the ICON10, but in a 5-inch screen. The smaller screen features a touch interface with soft keys that mirror the touch control functions.

Features:

- 5-inch (127 mm), full-color touchscreen display
- Intuitive user interface
- Soft touch buttons for feature selection and navigation
- AgSense built in – Valley ICON Link installed standard*
- BaseStation3 compatible*
- Variable rate irrigation (VRI) equipped; VRI Speed Control comes standard with no additional hardware needed
- Patented Valley Cruise Control
- Cable theft monitoring*

*Additional hardware or subscription required.

Benefits:

- Customizable home screen
- Simple operation – set end guns, load VRI prescriptions, create programs and more
- Precise and programmable application of water, fertilizers and chemicals
- GPS position readiness
- Auto reverse/auto stop
- With ICON Link, a consistent interface and access to real-time data is available across all of your devices from anywhere in the world through AgSense

ICON1

The panel module features only three soft touch buttons – Start Forward, Stop, and Start Reverse. But that doesn't mean you lose any functionality. You benefit from the same monitor and control capabilities as the ICON10. There's simply no screen on the panel itself, giving you the flexibility of using the mobile device of your choice.

Features:

- AgSense built in – Valley ICON Link installed standard*
- BaseStation3 Compatible*
- Wireless display through tablet or smart phone
- ICON app available on the App Store and Google Play
- Patented Valley Cruise Control
- Cable theft monitoring

*Additional hardware or subscription required.

Benefits:

- Same monitor and control capabilities as ICON10
- Control your pivot from the edge of the field with any mobile device

Modular panel comes equipped with transient and induced voltage protection, Nema 3R industrial standards and includes a 5-year warranty (USA/Canada only).

Valley ICON Panels

Valley ICON10 Control Panels

DESCRIPTION	BUILD TO ORDER OR STOCK	PART NUMBER
ICON10 Panel 30 Amp – LTE-Verizon	Stock item at Valley distribution centers. Any options must be field installed.	KA01946
ICON10 Panel 30 Amp – LTE-AT&T	Stock item at Valley distribution centers. Any options must be field installed.	KA02786
ICON10 Panel 30 Amp – Aeris	Stock item at Valley distribution centers. Any options must be field installed.	KA02289
ICON10 Panel 30 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01945
ICON10 Panel 30 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02284
ICON10 Panel 45 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01959
ICON10 Panel 45 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02338

Valley ICON10 & ICON1 WIFI Package

DESCRIPTION	COMMENTS	PART NUMBER
ICON10 & ICON1 WIFI – Domestic	Optional with the ICON10 series	0000K97

Valley ICON5 Control Panels

DESCRIPTION	BUILD TO ORDER OR STOCK	PART NUMBER
ICON5 Panel 30 Amp – LTE-Verizon	Stock item at Valley distribution centers. Any options must be field installed.	KA01918
ICON5 Panel 30 Amp – LTE-AT&T	Stock item at Valley distribution centers. Any options must be field installed.	KA02783
ICON5 Panel 30 Amp – Aeris	Stock item at Valley distribution centers. Any options must be field installed.	KA02271
ICON5 Panel 30 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01917
ICON5 Panel 30 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02266
ICON5 Panel 45 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01931
ICON5 Panel 45 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02320

Valley ICON1 Control Panels

DESCRIPTION	BUILD TO ORDER OR STOCK	PART NUMBER
ICON1 Panel 30 Amp – LTE-Verizon	Stock item at Valley distribution centers. Any options must be field installed.	KA01890
ICON1 Panel 30 Amp – LTE-AT&T	Stock item at Valley distribution centers. Any options must be field installed.	KA02786
ICON1 Panel 30 Amp – Aeris	Stock item at Valley distribution centers. Any options must be field installed.	KA02253
ICON1 Panel 30 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01889
ICON1 Panel 30 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02248
ICON1 Panel 45 Amp – LTE-Verizon	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA01903
ICON1 Panel 45 Amp – LTE-AT&T	Build to order control panel from Valley, NE, only. Some options can be factory installed.	KA02302

Modular panel comes equipped with transient and induced voltage protection, Nema 3R industrial standards and includes a 5-year warranty (USA/Canada only).

Panel Network Integration

ICONX brings all pivots – regardless of brand – into one connected network



ICONX takes control of existing pivot panels using the panel's circuits and delivering full ICON touch control. Now, all of a grower's pivots can be on one network. ICONX smart panels are compatible with any major brand of pivot, and are easily upgraded to add new features and capabilities.

- Compatible with all major pivot brands
- Affordable way to add remote monitoring and control access through AgSense or BaseStation3 without a full panel upgrade

NOTE: The ICONX is not a fully functional panel by itself. Rather, it uses the power of the existing host panel.

ICONX Offers:

- Patented Valley Cruise Control for accurate rotation
- Integration with agronomy software platforms, allowing prescriptions to be pushed to the panel
- A 5-inch, full-color touchscreen display
- Accurate application with Valley GPS Position
- End Pressure monitoring to help ensure optimal pressure, because 50% of field area is under the last 30% of the machine.
- Optimized yields – every ICONX comes with programmable bi-directional VRI Speed Control plus VRI Zone Control capability
- Cable theft monitoring* to help growers protect their investment
- Overlap Zone Alert to avoid collisions

*Additional hardware or subscription required.

Valley ICONX Control Panels

ITEM	PART NUMBER
ICONX – LTE-Verizon - Valley GPS	0000L20
ICONX – BaseStation - Valley GPS	0000L21
ICONX – Aeris - Valley GPS	0000L22
ICONX – LTE-AT&T - Valley GPS	0000M56

Note 1: Add KA02669 for end-of-field pressure option.

Valley ICONX Transformer

ITEM	PART NUMBER
480VAC to 24VAC Transformer	KA02484

Note: When installing an ICONX on a Reinke machine, this transformer may be needed.

Panel Upgrade Packages

DESCRIPTION	COMMENTS	PART NUMBER
PKG Panel Upgrade to ICON1 w/ICON Link LTE-Verizon	Includes ICON1 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000K41
PKG Panel Upgrade to ICON5 w/ICON Link LTE-Verizon	Includes ICON5 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000K42
PKG Panel Upgrade to ICON10 w/ICON Link LTE-Verizon	Includes ICON10 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000K43
PKG Panel Upgrade to ICON1 w/ICON Link Aeris	Includes ICON1 Module, ICON Link WIFI, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M52
PKG Panel Upgrade to ICON5 w/ICON Link Aeris	Includes ICON5 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M53
PKG Panel Upgrade to ICON10 w/ICON Link Aeris	Includes ICON10 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M54
PKG Panel Upgrade to ICON1 w/ICON Link AT&T	Includes ICON1 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M48
PKG Panel Upgrade to ICON5 w/ICON Link AT&T	Includes ICON1 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M49
PKG Panel Upgrade to ICON10 w/ICON Link AT&T	Includes ICON1 Module, ICON Link, Smart Relay Board, Power Supply, hardware and upgrade manuals	0000M50

Note: Upgrade packages DO NOT include an Encoder, GPS Positioning or Pressure Transducer. Those must be ordered separately.

Modular panel comes equipped with transient and induced voltage protection, Nema 3R industrial standards and includes a 5-year warranty (USA/Canada only).

Turnkey Water Management

Growers want efficient technological solutions. But at the end of the day, they just want their products to work, be easy to understand and know who to contact if they need help. To connect growers, we need to connect dealers to an integrated, hassle-free experience.

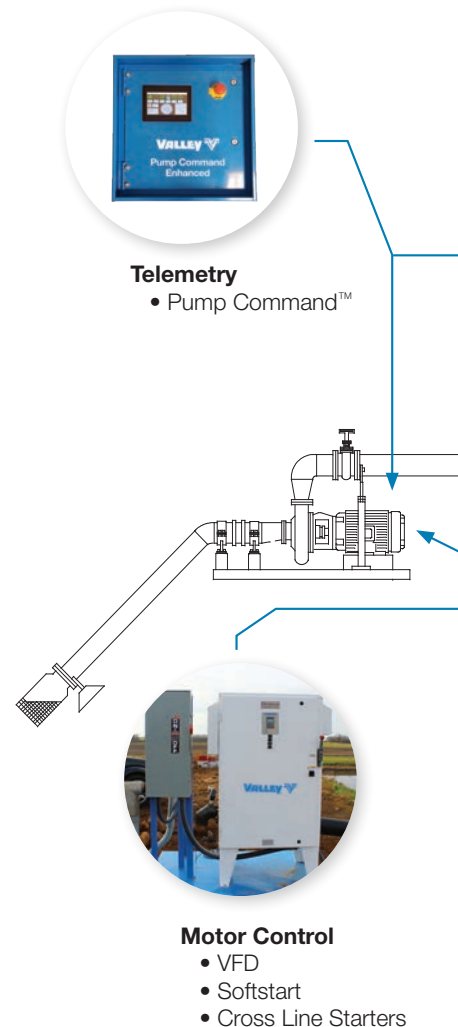
The message is simple:

If you want to work with the same person for all your irrigation pumping and water management needs, Valley has the right solutions for you and your growers.

One Brand, One Solution

The Water Management experts at Valley connect dealers with:

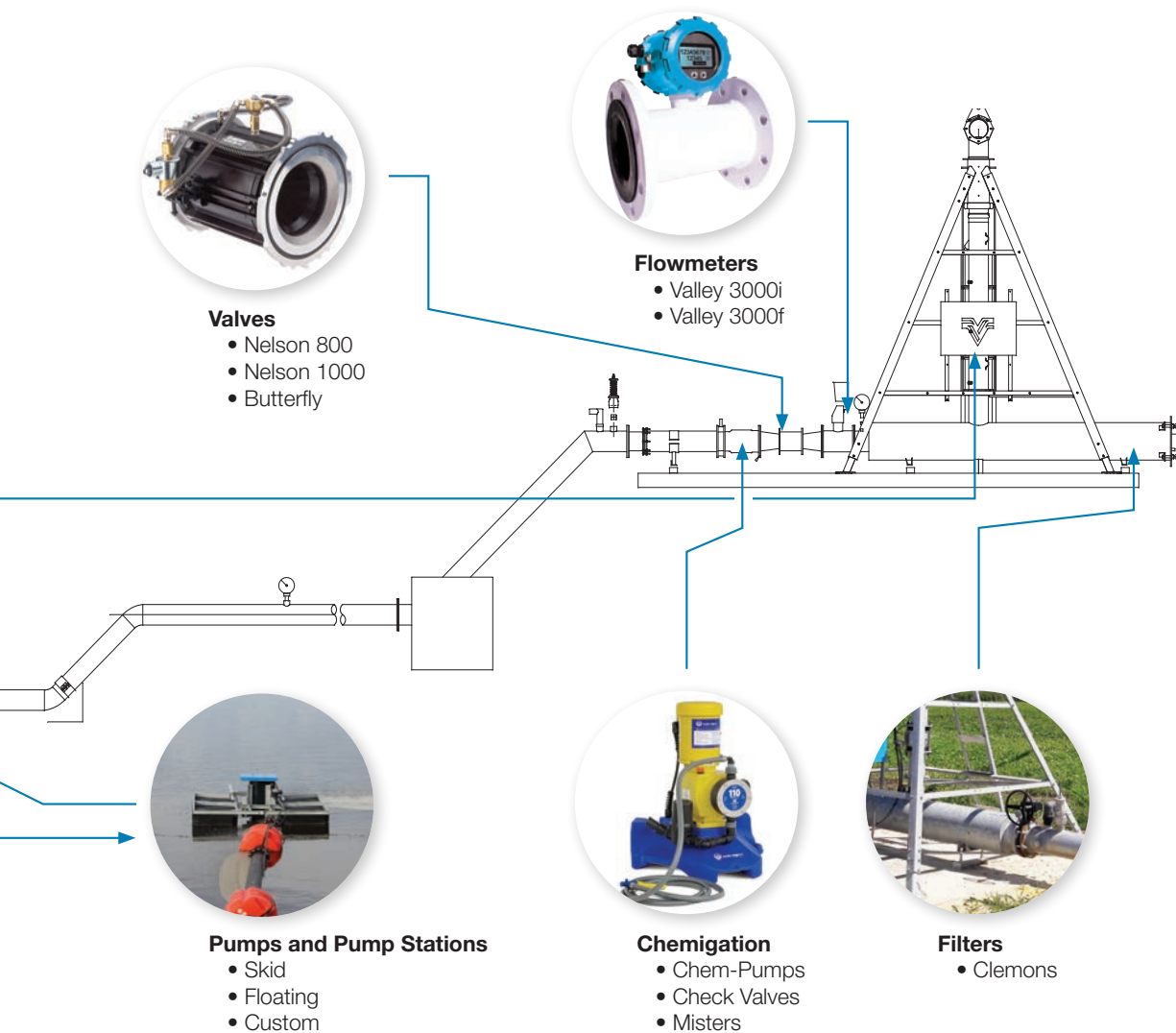
- **Valley-engineered solutions** – A one-stop shop to fulfill ancillary needs, receive product support and answer warranty questions
- **One familiar voice throughout the entire project**
- **Their end customers** – They can spend more time in front of them while we do the pumping design work
- **Flexible options** – They can order accessories “a la carte”
- **Increased buying power** – Through dealer discounts
- **Integration** – Remote telemetry technology and pumping solutions



Reliable Pumping Solutions from the Brand Growers Trust

Valley works with dealers from A to Z to create the ideal solution. From site evaluation through the process to due diligence, when they partner with the water management experts from Valley, they can have confidence that the solutions will work, and we will offer top-notch support. Plus, dealers can increase their buying power, using Valley as a single-source provider.

If dealers and growers want integrated water management solutions for total control of their entire fields – pump to pivot – Valley has the products for them.



Pumps/Pump Stations

Valley designs robust water pumping solutions for farming operations around the world. Our variable speed pump stations (VFDs) increase efficiency while maintaining constant pressure with variable flow. These engineered systems are also available skid mounted for ease of use and transportation.



Pump Station – Skid:

For ease of use and transportation



Pump Station – Floating:

Positioned over the water source itself



Custom-engineered (Large-scale):

Designs based on your growers' unique needs

Pump Telemetry

Telemetry

Pump Command

Valley offers solutions for large and small farms to automate pumping operations. Growers can save time and resources with wireless remote monitoring, plus control of all of their pumps and link them to their fleet of pivots or linears.

Valley Pump Command is like an easy button for pumping – growers just turn pivots on, and their pump station takes care of itself.

Valley Pump Command Offers:

- Intuitive Pump Control – All three tiers offer an automatic VFD set point control solution that automatically matches output to demand for multiple pumps and pivots
- Maximized efficiency – Save energy and water at all times by using only the pressure required
- Time savings – Eliminate trips to the pumps
- Cost savings – Avoid the expensive and difficult digging necessary to install wires
- Reporting capabilities – Integration with Valley irrigation management solutions for comprehensive record keeping
- Flexibility – Valley offers several tiered solutions to meet your specific needs



Telemetry

Pump Connect®

Pump Connect allows growers to wirelessly control pumps from the center pivot control panel, eliminating time-consuming trips to pump sites or expensive trenching to install wires.

Pump Connect and Command Parts

ITEM	PART NUMBER
Pressure Transducer and Cables	
200 PSI Pressure Transducer (4-20 mA)	03E3779
Transducer Cable (10m)	03E3780
Transducer Cable (5m)	03E3781
Pump Command	
AGS Pump Command Basic LTE VZW	9313172
AGS Pump Command Basic LTE AT&T	9313173
AGS Pump Command Basic GSM AERIS	9313174
AGS Pump Command Enhanced LTE VZW	9313175
AGS Pump Command Enhanced LTE AT&T	9313176
AGS Pump Command Enhanced GSM AERIS	9313177
Pump Connect	
Standard Node	03E3614
Electric Single Gateway (w/o light)	03E3615
Electric Single Gateway (with light)	03E3617
Multi-Pivot Gateway (w/o light)	03E3616
Multi-Pivot Gateway (with light)	03E3618
Multi-Pump Node	03E3620
Multi-Pump Gateway (w/o light)	03E3621
Multi-Pump Gateway (with light)	03E3623
Engine Gateway (w/o light)	03E3622
Engine Gateway (with light)	03E3624
Pump Connect VFD	
Pump Connect VFD Gateway	03E3777
Pump Connect VFD Node	03E3778
Antennas and Cables	
900MHZ Antenna 5 dbi	03E3528
Antenna Mount Magnetic RPSMA 10 FT (5 dbi)	03E4259
6 dbi Omni Antenna	03E3626
Directional Antenna	03E3627
Antenna Pkg 16' Coax w DC Block Filter (6 dbi and directional)	0000K90
Antenna Pkg 30' Coax w DC Block Filter (6 dbi and directional)	0000K91

Motor Control

VFDs

Yaskawa iQpump1000 VFD*

Growers can reduce their energy and maintenance costs by up to 25-50% with the intelligent iQpump VFD from Valley, utilizing a Yaskawa VFD as the backbone. Adjust the pump speed to exactly match pressure and flow requirements. iQpump software features specific macros designed for Valley with pivot operation in mind, making one-step setup and automation easy.



- Assembled and performance-tested in the USA
- The most advanced pump software in the industry
- Resettable circuit breaker with flange disconnect
- UL-approved NEMA 3R enclosure for both service entrance and branch circuit protection
- The best warranty in the market

Features:

- Input Phase/Voltage: 3PH/380-480V
- NEMA 3R Service Entrance Rated
- 3% Line Reactor
- 18kAIC Circuit Breaker
- Door-mounted VFD Hand-Off-Auto Selector Switch
- Surge Suppressor
- Door-mounted Speed Potentiometer Dial
- Door-mounted VFD keypad Operator

* Check with your TTM for availability.

Why Use a VFD?

Flexibility

- Constant pressure results in cost savings
- Multiple pivots can be supplied by one pump
- Handles changes in field elevation
- Adjust pressure in case of end gun shutoff or flow variations (VRI)

Conservation

- Pumps only what the well can manage
- Reduces operation and maintenance costs

Efficiency

- Uses only the horsepower needed
- Controls multiple pumps with no extra PLC (added cost)

YASKAWA



Single-Phase Conversion VFD

Clean, efficient variable-speed motor control with single-phase power. Yaskawa's industry-leading Single-Phase Converter (SPC) cleanly converts single-phase AC power to DC power for Yaskawa variable frequency drives. The SPC combines Yaskawa reliability and drive technology with motor control solutions for businesses in remote areas.

The SPC eliminates the need to oversize variable frequency drives for single-phase applications while reducing distortion to less than 10% iTHD. With lower input harmonics and near-unity power factor, the SPC also eliminates the need to significantly oversize transformers in single-phase applications, reducing overall installation costs.

The Single-Phase Converter addresses common issues with AC motors powered from single-phase input:

- Limited single-phase motor options
- Inefficient use of power due to choppy current harmonics
- Increased maintenance of rotating parts and tuned circuits

System Advantages:

- Low distortion (less than 10% iTHD) reduces installation costs
- Eliminates the need for drive oversizing
- No rotating parts needed for phase conversion
- UL-listed NEMA 3R enclosure with circuit breaker that can be reset
 - Balances any choppy power before powering motor
 - Reduces any radio or GPS interference caused by harmonic distortion

Motor Control

VFDs

Yaskawa Single Phase Converting VFD

ITEM	PART NUMBER
Yaskawa IQPUMP100 1 Phase Conv 30HP/40A	0980444
Yaskawa IQPUMP100 1 Phase Conv 40HP/52A	0980445
Yaskawa IQPUMP100 1 Phase Conv 50HP/65A	0980446
Yaskawa IQPUMP100 1 Phase Conv 60HP/77A	0980447
Yaskawa IQPUMP100 1 Phase Conv 75HP/96A	0980638
Yaskawa IQPUMP100 1 Phase Conv 100HP/124A	0980639
Yaskawa IQPUMP100 1 Phase Conv 125HP/156A	0980640

For turbine or centrifugal pump motors size VFD based on full load amps. For submersible pumps size VFD based on max amps (including service factor).

Yaskawa Three Phase VFD

ITEM	PART NUMBER
Standard Configuration For Centrifugal and Turbine Pump Motors with Line Reactor	
ELC MS Yaskawa - 34 amps - 25 HP VFD	03E3971
ELC MS Yaskawa - 40 amps - 30 HP VFD	03E3972
ELC MS Yaskawa - 52 amps - 40 HP VFD	03E3973
ELC MS Yaskawa - 65 amps - 50 HP VFD	03E3974
ELC MS Yaskawa - 77 amps - 60 HP VFD	03E3975
ELC MS Yaskawa - 96 amps - 75 HP VFD	03E3976
ELC MS Yaskawa - 124 amps - 100 HP VFD	03E3977
ELC MS Yaskawa - 156 amps - 125 HP VFD	03E3978
ELC MS Yaskawa - 180 amps - 150 HP VFD	03E3979
ELC MS Yaskawa - 240 amps - 200 HP VFD	03E3980
ELC MS Yaskawa - 302 amps - 250 HP VFD	03E3981
ELC MS Yaskawa - 361 amps - 300 HP VFD	03E3982

Size VFD panel based on full load amps of motor. If full load amps exceed amp rating, select next largest panel.

Standard Configuration For Submersible Pump Motors with Load Reactor	
ELC MS Yaskawa - 34 amps - 20HP Sub VFD	03E3983
ELC MS Yaskawa - 40 amps - 25HP Sub VFD	03E3984
ELC MS Yaskawa - 52 amps - 30HP Sub VFD	03E3985
ELC MS Yaskawa - 65 amps - 40HP Sub VFD	03E3986
ELC MS Yaskawa - 77 amps - 50HP Sub VFD	03E3987
ELC MS Yaskawa - 96 amps - 60HP Sub VFD	03E3988
ELC MS Yaskawa - 124 amps - 75HP Sub VFD	03E3989
ELC MS Yaskawa - 156 amps - 100HP Sub VFD	03E3990
ELC MS Yaskawa - 240 amps - 125HP Sub VFD	03E3991

Size VFD panel based on max amps (including service factor) of the submersible motor. If max amps (include service factor) of motor exceed amp rating, select next largest panel.

Yaskawa Accessories

ITEM	PART NUMBER
iQpump1000 Floor Stand and Keypad Operator	
ELC MS Yaskawa 12" (304.8 mm) Floor Mount Legs	03E3968
ELC MS Yaskawa 30" Floor Mount Legs	03E3969
ELC MS Yaskawa Key Pad	03E3970
Pressure Transducer and Cables	
200 PSI (13.8 bar) Pressure Transducer (4-20 mA)	03E3779
Transducer Cable 32.8' (10m)	03E3780
Transducer Cable 16.4' (5m)	03E3781

Motor Control

VFDs



PHASE
TECHNOLOGIES

Why use a Phase Technologies VFD?

Value – high-quality VFDs and phase converters at an affordable price

Safety – Low harmonics meet or exceed industry guidelines

Power – Double your voltage when you need it most

Efficiency – Specifically designed for efficient digital phase conversion

Strength – Rated up to 122°F, offering trouble-free operation and effective protection from the elements.

Phase Technologies

Most motors run at peak load less than 10 percent of the time, so why should growers use extra energy when they don't need to? A Variable Frequency Drive (VFD) adjusts the speed of the motor to meet the "load" of the system without using more energy than necessary.

Phase-Converting VFD with AuxPower™

Single-Phase Input

Reduce labor cost with one integrated panel that provides everything required for center pivot irrigation.

Three-Phase Output

Independently controlled phase converter to power the entire center pivot system.

Three Phase-Converting VFD

Three-Phase VFD

VFD provides full-featured speed control of the main pump.

3LH Series

DXS Series

20-200 HP

1LH Series

- Single Phase Input to Three Phase Output
- Configured for submersible and centrifugal pump motors
- HP Ranges 20 to 100HP for submersible, 20 to 125HP in centrifugal configuration
- NEMA 3R Enclosure

Phase Technologies VFD Parts

HP	AMP	H" x W" x D"	ITEM	PART NUMBER
For Submersible Pumps - Includes Output Filter (1PH-3PH/480V Phase Converting Low Harmonic VFD)				
20	31	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 20HP OF	03E4350
30	46	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 30HP OF	03E4351
40	61	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 40HP OF	03E4352
50	77	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 50HP OF	03E4353
60	91	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 60HP OF	03E4354
75	107	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 75HP OF	03E4355
100	142	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 100HP OF	03E4356
For Centrifugal Pumps (1PH-3PH/480V Phase Converting Low Harmonic VFD)				
20	31	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 20HP	03E4365
30	46	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 30HP	03E4366
40	61	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 40HP	03E4367
50	77	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 50HP	03E4368
60	91	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 60HP	03E4369
75	107	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 75HP	03E4370
100	142	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 100HP	03E4371
125	172	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 125HP	03E4372

Motor Control

VFDs

Phase Technologies

1LH Series - With Aux Power

- Same features as 1LH except with added 18 amp power supply to power a center pivot.
- Configured for submersible and centrifugal pump motors
- 1LH with 32 amp power supply available as a Direct Ship order

Phase Technologies VFD Parts

HP	AMP	H" x W" x D"	ITEM	PART NUMBER
For Submersible Pumps - Includes Output Filter (1PH-3PH/480V Phase Converting Low Harmonic VFD)				
20	31	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 20HP OF AUX OUT	03E4358
30	46	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 30HP OF AUX OUT	03E4359
40	61	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 40HP OF AUX OUT	03E4360
50	77	60 x 46 x 18	ELC MS VFD SUB 1LH 480V 1-3PH 50HP OF AUX OUT	03E4361
60	91	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 60HP OF AUX OUT	03E4362
75	107	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 75HP OF AUX OUT	03E4363
100	142	64 x 60 x 22	ELC MS VFD SUB 1LH 480V 1-3PH 100HP OF AUX OUT	03E4364
For Centrifugal Pumps (1PH-3PH/480V Phase Converting Low Harmonic VFD)				
20	31	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 20HP AUX OUT	03E4373
30	46	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 30HP AUX OUT	03E4374
40	61	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 40HP AUX OUT	03E4375
50	77	60 x 46 x 18	ELC MS VFD CENT 1LH 480V 1-3PH 50HP AUX OUT	03E4376
60	91	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 60HP AUX OUT	03E4377
75	107	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 75HP AUX OUT	03E4378
100	142	64 x 60 x 22	ELC MS VFD CENT 1LH 480V 1-3PH 100HP AUX OUT	03E4379

Phase Technologies Panel Leg Kits

ITEM	PART NUMBER
LEGS01 - LEG KIT 3LH 420-450	03E4440
LEG02 - LEG KIT 1LH 220-450, 3LH 460-410	03E4441
LEGS03 - LEG KIT 1LH 460-4125, 3LH 4125-4200	03E4442

3LH Series

- Three Phase Input / Three Phase Output
- HP Ranges 20 to 200HP
- NEMA 3R Enclosure
- Configured for submersible and centrifugal pump motors

Phase Technologies VFD Parts

HP	AMP	H" x W" x D"	ITEM	PART NUMBER
For Submersible Pumps - Includes Output Filter (3PH/480V LH VFD Low Harmonic)				
20	31	51 x 40 x 20	ELC MS VFD SUB 3LH 480V 3PH 20HP OF	03E4380
30	46	51 x 40 x 20	ELC MS VFD SUB 3LH 480V 3PH 30HP OF	03E4381
40	61	51 x 40 x 20	ELC MS VFD SUB 3LH 480V 3PH 40HP OF	03E4382
50	77	51 x 40 x 20	ELC MS VFD SUB 3LH 480V 3PH 50HP OF	03E4383
60	91	64 x 46 x 22	ELC MS VFD SUB 3LH 480V 3PH 60HP OF	03E4384
75	107	64 x 46 x 22	ELC MS VFD SUB 3LH 480V 3PH 75HP OF	03E4385
100	142	64 x 46 x 22	ELC MS VFD SUB 3LH 480V 3PH 100HP OF	03E4386
125	172	66 x 60 x 22	ELC MS VFD SUB 3LH 480V 3PH 125HP OF	03E4387
150	198	66 x 60 x 22	ELC MS VFD SUB 3LH 480V 3PH 150HP OF	03E4388
200	250	66 x 60 x 22	ELC MS VFD SUB 3LH 480V 3PH 200HP OF	03E4389
For Centrifugal Pumps (3PH/480V LH VFD Low Harmonic)				
20	31	51 x 40 x 20	ELC MS VFD CENT 3LH 480V 3PH 20HP	03E4390
30	46	51 x 40 x 20	ELC MS VFD CENT 3LH 480V 3PH 30HP	03E4391
40	61	51 x 40 x 20	ELC MS VFD CENT 3LH 480V 3PH 40HP	03E4392
50	77	51 x 40 x 20	ELC MS VFD CENT 3LH 480V 3PH 50HP	03E4393
60	91	64 x 46 x 22	ELC MS VFD CENT 3LH 480V 3PH 60HP	03E4394
75	107	64 x 46 x 22	ELC MS VFD CENT 3LH 480V 3PH 75HP	03E4395
100	142	64 x 46 x 22	ELC MS VFD CENT 3LH 480V 3PH 100HP	03E4396
125	172	66 x 60 x 22	ELC MS VFD CENT 3LH 480V 3PH 125HP	03E4397
150	198	66 x 60 x 22	ELC MS VFD CENT 3LH 480V 3PH 150HP	03E4398
200	250	66 x 60 x 22	ELC MS VFD CENT 3LH 480V 3PH 200HP	03E4399

Soft Start



Motortronics

- VMX2 Soft Starter
- NEMA 12/4 Enclosure
- Input Phase/Voltage: 3PH/380-480V
- 35 KAIC Circuit Breaker
- Fused 120V Control Power Transformer
- Door Mounted
 - Hand-off Auto Selector Switch
 - Green "RUN" Pilot Light
 - Red "FAULT" Pilot Light
 - External Reset Push Button

Control the amount of voltage running through the motors circuits by limiting torque. This lets the soft starter to reduce voltage and gradually stop, to allow for a smooth progression of current.

- Lower energy use
- Reduce wear and tear on motors and equipment

What's the difference between a VFD and a Soft Starter?

VFDs and Soft Starters do similar things. The primary difference is that a VFD varies the speed of a motor while a soft starter only controls the starting and stopping of the motor.

Motortronics Parts

ITEM	MAX AMPS	PART NUMBER
Heavy Duty Configuration or the "H" Model Soft Starts		

VMX Soft Starter with **"START"** Rated Bypass Contactor. Size panel based on HP of motor or max amps (include service factor) for submersible.

ELC MS 65KAIC 25 HP VIPS SS Start Bypass	39	03E4069
ELC MS 65KAIC 30 HP VIPS SS Start Bypass	48	03E4070
ELC MS VIPS 40 HP SS Start Bypass	60	03E4061
ELC MS VIPS 50 HP SS Start Bypass	78	03E4062
ELC MS VIPS 60 HP SS Start Bypass	90	03E4063
ELC MS VIPS 75 HP SS Start Bypass	112	03E4064
ELC MS VIPS 100 HP SS Start Bypass	150	03E4065
ELC MS VIPS 125 HP SS Start Bypass	180	03E4066
ELC MS VIPS 150 HP SS Start Bypass	210	03E4067
ELC MS VIPS 200 HP SS Start Bypass	300	03E4068
ELC MS 65KAIC 250 HP VIPS SS Start Bypass	350	03E4079
ELC MS 65KAIC 300 HP VIPS SS Start Bypass	420	03E4080

If full load amps or max amps (include service factor) exceed amp rating, select next largest panel.

ITEM	PART NUMBER
Service Entrance Rated Kit and Flow Stand Legs	
ELC MS Softstart Size 1 (37 x 15 x 12) SER Kit, 25 to 75 HP Panels	03E4048
ELC MS Softstart Size 1 (48 x 33 x 16) SER Kit, 100 to 300 HP Panels	03E4049
ELC Motortronics Softstarter Floor Stand Legs, 100 to 300 HP Panels	03E4050

Phase Converters

ARCO Roto Phase

ARCO Valley-branded "Val Series Roto-Phases" provide three-phase power from a single-phase supply.

- Designed to give each motor its desired starting torque, even at the farthest tower.
- 5-Year ARCO Warranty
- CSA and NRTL/C Approved
- 24-Hour support service
- TEFC Designed (totally enclosed, fan-cooled)
- Private labeled for Valley



ARCO Roto Phase Parts

MAX STARTING HP CAPACITY	TOTAL SYSTEM HP CAPACITY	KVA	ARCO ROTO-PHASE CONVERTER MODELS	PART NUMBER
Arco Roto-Phase Converters (460 Volt Single Phase Required)				
2	4	4	*VAL-0 Roto-phase Converter	09S0020
4	8	8	*VAL-1 Roto-phase Converter	09S0021
6	12	12	*VAL-2 Roto-phase Converter	09S0022
8	16	16	*VAL-3 Roto-phase Converter	09S0023
12	25	25	*VAL-4 Roto-phase Converter	09S0024
15	30	30	**VAL-5 Roto-phase Converter	09S0028
20	40	40	**VAL-6 Roto-phase Converter	09S0029
25	50	50	**VAL-7 Roto-phase Converter	09S0030
30	60	70	**VAL-8 Roto-phase Converter	09S0064
40	80	80	**VAL-9 Roto-phase Converter	09S0065

* Units inventoried at Valley. (These do NOT include disconnects or voltage regulations. If you need these options, these MUST be installed at the ARCO Factory and drop shipped to your location.)

** Units NOT stocked at Valley; that must be drop shipped to your location.

ARCO Roto Phase Parts

VOLTAGE REGULATION OPTIONS* (must be factory installed and drop shipped)	PART NUMBER
Voltage Regulation and Other Options for Arco Phase Converters	
*Voltage Regulation for VAL5	09S0058
*Voltage Regulation for VAL6	09S0059
*Voltage Regulation for VAL7	09S0060
*Voltage Regulation for VAL8	09S0061
Voltage Regulation for VAL9	09S0062

* The Voltage Regulation option MUST be factory installed. This can't be retrofitted in the field on existing units. Add price to base unit.

OTHER OPTIONS FOR ARCO ROTO-PHASES*	PART NUMBER
Voltage Regulation and Other Options for ARCO Phase Converters	
*Surge Arrestor (for VAL0 - VAL4)	09S0025
*Disconnect Switch (VAL0 - VAL3)	09S0026
*Disconnect Switch (VAL4 - VAL7)	09S0027
*Disconnect Switch (VAL8 - VAL9)	09S0067

* The Surge Arrestors are available from Valley and can be purchased separately. The Disconnect Switches MUST be factory installed and then drop shipped to your location direct from the ARCO factory. Add price to base unit.

ARCO Magnetic Starters

Magnetic starters can be built into any ARCO Roto-phase converter. Both Automatic and Manual starters are available. Any ARCO Roto-phase converter ordered through Valley and shipped from the ARCO factory can have this option built into the unit. Following are descriptions for the two different options available:

Automatic Starter – This is a factory-installed feature and provides over current protection for the phase converter. It includes a built-in starter control package in the phase converter's control panel that includes a 3-pole magnetic starter, overload protection, and a time-delay circuit for remote operation with the irrigation system.

Manual Starter – This is a factory-installed feature and provides over current protection for the phase converter. It includes a built-in starter control package in the phase converter's control panel that includes a 3-pole magnetic starter, overload protection, and a push button START / STOP station for manually starting and stopping the phase converter.

Please contact the Valley Parts Department for current pricing on all Starter options.

Phase Converters

PHASEPERFECT® 480V

The Phase Technologies Phase Perfect Digital Phase Converter is a single-phase 480V to three-phase 480V converter that can be used to provide 3PH/480V power to a Valley center pivot. The Phase Technologies Digital Phase Converter has been tested by Valley Engineering and is compatible with Valley center pivot electrical requirements.



The Phase Technologies PHASEPERFECT product line brings a powerful solution to areas where only single-phase power exists.

- Solid State power conversion
- Single-Phase to Three-Phase converter
- 7.5 - 100 HP range
- Low standby loss
- 97% efficiency

The first and only 480V digital phase converter on the market, PHASEPERFECT balances phase voltages within 1% under all load conditions.

- Significant Operating Cost Savings – A PHASEPERFECT 480V converter saves an average of \$797 per year in operating costs compared to a rotary converter.*
- Built with the latest advances in solid state power switching technology
- Operates three-phase pivots and all related accessories, including GPS, without risk or damage from voltage imbalance or loss of signal
- Conserves energy and reduces demand on single-phase service power grid with high efficiency and electronic power factor correction
- Lightweight, quiet and easy to install
- Assumptions: Four-month irrigation season. Energized 50% of the time. \$0.12 per kW/hr. 10 HP total load.

PHASEPERFECT 480V Parts with Circuit Breaker

HP	AMP	H" x W" x D"	ITEM	PART NUMBER
7.5	13	28 x 22 x 15	Phase Perfect Converter 7.5HP 13A w/Breaker	0980432
10	18	28 x 22 x 15	Phase Perfect Converter 10HP 18A w/Breaker	0980434
15	27	28 x 22 x 15	Phase Perfect Converter 15HP 27A w/Breaker	0980436
20	32	28 x 22 x 15	Phase Perfect Converter 20HP 32A w/Breaker	0980437
30	46	28 x 25 x 17	Phase Perfect Converter 30HP 46A w/Breaker	0980451

Includes: MCCB/Service Rated Disconnect, Type 3R Outdoor Enclosure

PHASEPERFECT 480V Parts with Circuit Breaker and Surge Arrestor

HP	AMP	H" x W" x D"	ITEM	PART NUMBER
7.5	13	28 x 22 x 15	Phase Perfect Converter 7.5HP 13A w/Breaker/Surge	0980431
10	18	28 x 22 x 15	Phase Perfect Converter 10HP 18A w/Breaker/Surge	0980433
15	27	28 x 22 x 15	Phase Perfect Converter 15HP 27A w/Breaker/Surge	0980435
20	32	28 x 22 x 15	Phase Perfect Converter 20HP 32A w/Breaker/Surge	0980450
30	46	28 x 25 x 17	Phase Perfect Converter 30HP 46A w/Breaker/Surge	0980438

Includes: MCCB/Service Rated Disconnect and Raycap Strikesorb Surge Arrestor, Type 3R Outdoor Enclosure

Phase Perfect sizes 40 to 100 HP for multiple motor and center pivots systems available by direct ship order.



Multi-Pivot Automation

Low Pressure Loss and High Flow Capacity

Nelson Valves

Unlike manual valves that require trips to the pivot point to start and stop the pivot, the pairing of Valley controls and Nelson hydraulic control valves open and close automatically at the command of the pivot panel, preventing unnecessary and costly watering. These valves can be fitted with a pressure control pilot to provide constant pressure and a rate-of-flow pilot to automatically slow-fill the pivot during system startup. These options provide added protection to the pivot, system pipes and components.



The primary difference between 800 and 1000 valves is their construction:

- 800 Valves have a galvanized steel housing
- 1000 Valves have an economical, yet durable plastic housing

With Nelson Valves, growers can:

- Save time and labor by reducing the number of trips to the pivot point
- Improve performance by preventing watering in place due to unexpected shutoffs
- Maintain constant water pressure to protect multi-pivot system pipes
 - The Nelson 800 Series Valve is the only valve able to maintain an outlet pressure within +/- 0.5 psi
 - The Nelson 800 Series Valve has 1/2 to 1/10th the pressure loss of other valves
- Prevent water hammer damage by automatically slow-filling the pivot during system startup

Plus:

- For added protection, these valves can be fitted with a pressure control pilot to provide constant pressure and a rate-of-flow pilot to automatically slow-fill the pivot during system startup.
- The Nelson 800 Series Valve uses the most advanced 3-way pilot in the industry, which requires the lowest pressure differential to maintain a constant outlet pressure. Other valves that use two-way pilots can require a pressure differential of 10 psi.

Two Kits for Maximizing Efficiency and Savings

4" Valve x 6" Flange Adapter Kit

Quick and easy placement for a 4" valve in 6" pipe (101.6/152.4 mm)

6" Valve x 8" Flange Adapter Kit

Quick and easy placement for a 6" valve in 8" pipe (152.4/203.2 mm)

Nelson Flange Adapter and Stud Kits

ITEM	PART NUMBER
4" Valve x 6" Flange Adapter w/ Stud Bolts Kit	0999993
6" Valve x 8" Flange Adapter w/ Stud Bolts Kit	0999994
4" Stud Kit (8-5/8" x 12" Stud, 16-5/8" Nuts, 16-5/8" Washers)	0980295
6" Stud Kit (8-3/4" x 13-1/2" Stud, 16-3/4" Nuts)	0999542
8" Stud Kit (8-3/4" x 17" Stud, 16-3/4" Nuts)	0999543
Nelson Tubing Protection Kit – 800V/1000V	0980486

Nelson 800 Series Valves

VALVE SIZE (INCHES)	CONNECTION STYLE	OPERATING PRESSURE (PSI)	CONTROL FUNCTION	ON/OFF MODE	FILTER OPTIONS	PART NUMBER
3" Nelson 800 Valve Options						
3	Wafer with Bolts	30-200	Manual On/Off	120 volt AC	External	0232509
3	Wafer with Bolts	30-200	Manual On/Off	120 volt AC	Internal	0232510
4" Nelson 800 Valve Options						
4	Wafer w/o Bolts	18-80	Manual On/Off	120 volt AC	Internal	0232589
4	Wafer w/o Bolts	18-80	Manual On/Off	120 volt AC	External	0232575
4	Wafer w/o Bolts (cast iron cage)	30-200	Manual On/Off	120 volt AC	Internal	0232512
4	Wafer w/o Bolts	30-200	Manual On/Off	120 volt AC	External	0232511
4	Wafer w/o Bolts (aluminum cage)	30-200	Manual On/Off	120 volt AC	Internal	0232590
4	Wafer w/o Bolts	30-200	Pressure Reducing	120 volt AC	External	0232513
6" Nelson 800 Valve Options						
6	Wafer w/o Bolts	30-200	Manual On/Off	120 volt AC	Internal	0232518
6	Wafer w/o Bolts	30-200	Manual On/Off	120 volt AC	External	0232514
6	Wafer w/o Bolts	18-80	Manual On/Off	120 volt AC	Internal	0232591
6	Wafer w/o Bolts	18-80	Manual On/Off	120 volt AC	External	0232517
6	Wafer w/o Bolts	30-200	Manual On/Off	24 volt AC	External	0232577
6	Wafer w/o Bolts	30-200	Pressure Reducing	120 volt AC	External	0232516
6	Wafer w/o Bolts	30-200	Pressure Reducing	120 volt AC	External	0232582
8" Nelson 800 Valve Options						
8	Wafer w/o Bolts	30-200	Manual On/Off	120 volt AC	External	0232519
8	Wafer w/o Bolts	18-80	Manual On/Off	120 volt AC	External	0232579
8	Wafer w/o Bolts	30-200	Pressure Reducing	120 volt AC	External	0232578

For other valve configurations, please visit www.nelsonirrigation.com. To view these other options and configurations.

Nelson Air/Vacuum Relief Valves

ITEM	PART NUMBER
ACV200P - 2' (0.6 m) NPT	09S0046

The Nelson ACV200 Air Control Valve is outstanding for controlling air in irrigation systems. The ACV provides air relief, vacuum air relief and continuous air release under pressure.

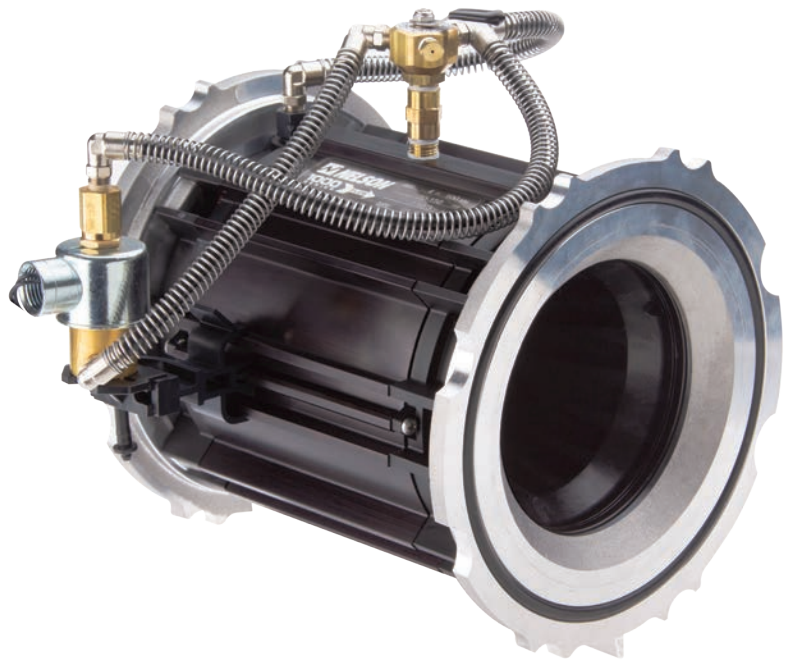


Ancillary



Nelson 1000 Valve

The 2", 3" and 4" Nelson 1000 Valve part numbers do not include the bolt kits/flange adapters. Please select the bolt kit/flange adapters for the specific valve size.



Nelson 1000 Series Valves

VALVE SIZE (INCHES)	CONNECTION STYLE	OPERATING PRESSURE (PSI)	CONTROL FUNCTION	ON/OFF MODE	FILTER OP-TIONS	PART NUMBER
2" Nelson 1000 Big Gun Valve Options						
2	Wafer w/o Bolts	30-150	Manual On/Off	E29 12-40VDC Latching	Internal	0232612
3" Nelson 1000 Big Gun Valve Options						
3	Wafer w/o Bolts	30-150	Manual On/Off	E29 12-40VDC Latching	Internal	0232611
4" Nelson 1000 Inline Valve Options						
4	Wafer w/o Bolts	30-150	Manual On/Off	E53 110 volt AC	External	0232607
4	Wafer w/o Bolts	30-150	Manual On/Off	E53 110 volt AC	Internal	0232608
4	Wafer w/o Bolts	18-80	Manual On/Off	E53 110 volt AC	External	0232609
4	Wafer w/o Bolts	18-80	Manual On/Off	E53 110 volt AC	Internal	0232610

For other valve configurations, please visit www.nelsonirrigation.com to view these other options and configurations.

Nelson 1000 Series Flange Adapter and Stud Kits

ITEM	NOTE	PART NUMBER
Stud Kit, .50" x 8.25" (4 Studs, 4 Nuts)	For ANSI Big Gun (75 or 100 Series)	0980488
Stud Kit, .50" x 9.75" (4 Studs, 4 Nuts)	For ANSI Big Gun (150 Series)	0980489
Stud Kit, .50" x 8.25" (4 Studs, 8 Nuts)	For 2" Nelson FNPT Flanges (Nelson 10356)	0980217
2" FNPT x ANSI Flange Adapter		0996405
Adapter Kit, 4" x 6" w/ Studs - 1000V4		0980487
Protection Kit, Tube (Service) - 800V/1000V		0980486

Ancillary

Butterfly Valves

B5 valves feature one-piece inner stem construction, solid outside housing with full face flanges with BUNA gaskets for water tight seal. The extensions accommodate 10 position levers or gear operators. The extension kits include all necessary hardware for proper mounting to the valve.

- Regulate flow
- Good for where pressure drop is fairly constant
- Lighter and smaller than other types of control valves
- Straight flow path
- High capacity
- Easily pass solids



All extension kits will be drop shipped direct to your dealership from the Matco-Norca factory.



Lever Operated Butterfly Valves

MODEL	VALVE STYLE	SIZE (INCHES)	VENDOR	PART NUMBER
B5-RLO4	Wafer Style-Lever	4	MATCO	0995560
B5-RLO6	Wafer Style-Lever	6	MATCO	0994156
B5-RLO8	Wafer Style-Lever	8	MATCO	0994157
B5-RLO10	Wafer Style-Lever	10	MATCO	0994158
B5-RLO12	Wafer Style-Lever	12	MATCO	0995561
WDNL040	Wafer Style-Lever	4	Smith Cooper	0999548
WDNL060	Wafer Style-Lever	6	Smith Cooper	0999550
WDNL080	Wafer Style-Lever	8	Smith Cooper	0999553
WDNL100	Wafer Style-Lever	10	Smith Cooper	0999556
WDNL120	Wafer Style-Lever	12	Smith Cooper	0999558

Gear Operated Butterfly Valves

MODEL	VALVE STYLE	SIZE (INCHES)	DISC	VENDOR	PART NUMBER
B5-RWG4	Wafer Style-Gear	4	Ductile Iron	MATCO	0995562
B5-RWG6	Wafer Style-Gear	6	Ductile Iron	MATCO	0994159
B5-RWG65	Wafer Style-Gear	6	Stainless Steel	MATCO	0997203
B5-RWG10	Wafer Style-Gear	8	Ductile Iron	MATCO	0994160
B5-RWG85	Wafer Style-Gear	8	Stainless Steel	MATCO	0997204
B5-RWG10	Wafer Style-Gear	10	Ductile Iron	MATCO	0994161
B5-RWG12	Wafer Style-Gear	12	Ductile Iron	MATCO	0995563
WDNG040	Wafer Style-Gear	4	Ductile Iron	Smith Cooper	0999549
WDNG060	Wafer Style-Gear	6	Ductile Iron	Smith Cooper	0999551
WSNG060	Wafer Style-Gear	6	Stainless Steel	Smith Cooper	0999552
WDNL080	Wafer Style-Gear	8	Ductile Iron	Smith Cooper	0999554
WSNG080	Wafer Style-Gear	8	Stainless Steel	Smith Cooper	0999555
WDNG100	Wafer Style-Gear	10	Ductile Iron	Smith Cooper	0999557
WDNG120	Wafer Style-Gear	12	Ductile Iron	Smith Cooper	0999559

Electric actuators for Matco BFV available as direct ship order. Contact Aftermarket for sizing and pricing.

Ancillary



Chemigation Check Valves

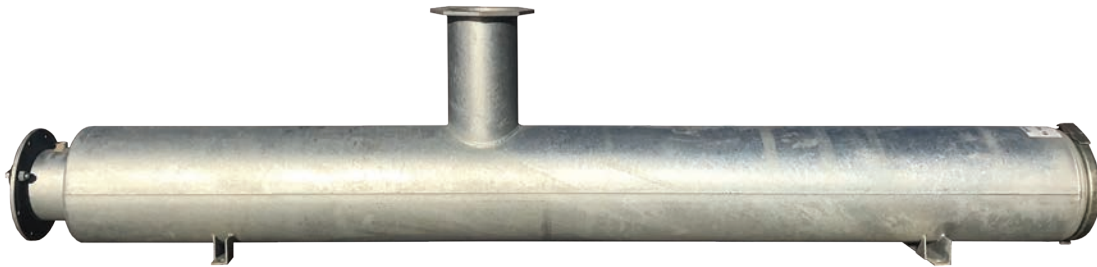
Kroy Midwest Chemigation Check Valves

SIZE (INCHES)	FLANGE TO FLANGE LENGTH	PART NUMBER
6	19.75"	KA01150
8	22.25"	KA01151
10	23.88"	KA01152



Clemons Filters

ITEM	GPM	INLET	OUTLET	PART NUMBER
Clemons 1200A Filter ASSY	1200	8" ANSI	6-5/8" VALLEY	0998508
Clemons 1200A Filter AASY	1200	8"ANSI	8-5/8" VALLEY	0999001
Clemons 2000A Filter AASY	2000	8" ANSI	8-5/8" VALLEY	0999002
Clemons 2000A Filter AASY	2000	10" ANSI	10" VALLEY	0999013



Flowmeters



Growers are being asked to produce more while using fewer resources. Flowmeters from Valley can help growers be more efficient and monitor their application precisely, saving water, energy, money and effort.

Valley offers two spool-type electromagnetic flowmeters for use in irrigation applications with 4" to 12" pipe. The simple keypad on the front panel of each gives you touch control to set your rate, total units, pulse scaling and various other settings.

Valley flowmeters are great if you:

- Need accurate automated reporting of irrigation and well usage.
- Chemigate through your pivot – When you need to maintain a certain application rate, flowmeters can help you adjust your flow.
- Want to automate your entire farm.
- Operate a dairy – Because it has no moving parts, the Valley 3000f has no obstructions so you can pump effluent through your machine.

Valley Flowmeter Benefits:

- Simple setup
- Minimal straight pipe requirement
- Superior resistance to wear from debris in water
- Tamper-evident seal
- Telemetry-ready for wireless meter reading
- Pulse or 4-29 mA output

Valley 3000i



Valley 3000f



Valley 3000i Battery Powered (includes pulse output)

SIZE	DESCRIPTION	PART NUMBER
4"	Insertion MagMeter, w/ bolt-on saddle, Base Model, 4 inch	0980599
6"	Insertion MagMeter, w/ bolt-on saddle, Base Model, 6 inch	0980600
8"	Insertion MagMeter, w/ bolt-on saddle, Base Model, 8 inch	0980601
10"	Insertion MagMeter, w/ bolt-on saddle, Base Model, 10 inch	0980602
12"	Insertion MagMeter, w/ bolt-on saddle, Base Model, 12 inch	0980603

Valley 3000f Battery Powered (includes pulse output)

SIZE	DESCRIPTION	PART NUMBER
4"	Flanged In Line MagMeter, Base Model, 4 inch	0980035
6"	Flanged In Line MagMeter, Base Model, 6 inch	0980036
8"	Flanged In Line MagMeter, Base Model, 8 inch	0980037
10"	Flanged In Line MagMeter, Base Model, 10 inch	0980038
12"	Flanged In Line MagMeter, Base Model, 12 inch	0980039

Valley 3000f Battery Powered with Datalogger

SIZE	DESCRIPTION	PART NUMBER
4"	Flanged In-Line MagMeter w/Datalogger, Base Model, 4 inch	0980211
6"	Flanged In-Line MagMeter w/Datalogger, Base Model, 6 inch	0980212
8"	Flanged In-Line MagMeter w/Datalogger, Base Model, 8 inch	0980213
10"	Flanged In-Line MagMeter w/Datalogger, Base Model, 10 inch	0980214
12"	Flanged In-Line MagMeter w/Datalogger, Base Model, 12 inch	0980215

Valley 3000f DC Powered with Datalogger/4-20mA

SIZE	DESCRIPTION	PART NUMBER
4"	Flanged In-Line MagMeter w/Datalogger, DC, 4-20mA Base Model, 4 inch	0980439
6"	Flanged In-Line MagMeter w/Datalogger, DC, 4-20mA Base Model, 6 inch	0980440
8"	Flanged In-Line MagMeter w/Datalogger, DC, 4-20mA Base Model, 8 inch	0980441
10"	Flanged In-Line MagMeter w/Datalogger, DC, 4-20mA Base Model, 10 inch	0980442
12"	Flanged In-Line MagMeter w/Datalogger, DC, 4-20mA Base Model, 12 inch	0980443

Valley 3000i and Valley 3000f cable kits

SIZE	DESCRIPTION	PART NUMBER
20'	20' cable kit for connection to ICON panel	KA02701
50'	50' cable kit for connection to ICON panel	KA02702
	Datalogger Cable	03E4241

Agri-Inject®



- Reduces chemical and fertilizer cost
- Perfect for VRI
- Improves input efficiency
- Easy to calibrate
- Offers improved safety
- Environmentally sound

Applying fertilizer (fertigation) and crop protection products (chemigation and pest control) through irrigation systems with Agri-Inject® fluid injection technology just makes sense – economically, agronomically and environmentally. You can put Agri-Inject technology to work in virtually any field – from row crops to potatoes, from fruit to hay.

ITEM	PART NUMBER
Macroy 55 GPH Pump Complete 480V 3 Phase*	0980260
Macroy 55 GPH Pump Complete 110V 1 Phase*	0980261
Macroy 110 GPH Pump Complete 480V 3 Phase*	0980262
Macroy 110 GPH Pump Complete 110V 1 Phase*	0980263
Macroy 150 GPH Pump Complete 480V 3 Phase*	0980264
Macroy 150 GPH Pump Complete 110V 1 Phase*	0980265

* The system includes the base, control switch, filter assembly, Mister Mist'r®, discharge hose and start-up kit in a complete turnkey package.

Bleeder Valves & Options

ITEM	PART NUMBER
Omni, PVDF, Orange, 15# Spring Hastelloy	0980266
Agri-Inject Classic Bleeder Valve - Black	0980268





Classic Mister Mist'r

Common Uses: Injection of low rates of fertilizers and ag chemicals

Volume Capacity: 0.5 to 70 GPH

Pipeline Size: 4" to 12" (101.6 to 304.8 mm)

ITEM	PART NUMBER
Classic Mister Mist'r, PP, 15PSI SS Spring	1K01823
Classic Bleeder Valve w/Fittings 1/2 (12.7 mm) x 1/2 Hose Barb	0980269
Classic Bleeder Valve w/Fittings 1/2 x 3/4 (19.05 mm) Hose Barb	0980270



Ultra Mister Mist'r

Common Uses: Injection of medium rates of fertilizers and ag chemicals

Volume Capacity: 3 to 110 GPH

Pipeline Size: 6" to 12" (152.4 to 304.8 mm)

ITEM	NOTES	PART NUMBER
Ultra Mister Mist'r Polypropylene		0980496
Ultra Bleeder Valve w/Fittings 3/8" (9.52 mm) JG	Used with 55 GPH Unit	0980497
Ultra Bleeder Valve w/Fittings 1/2 Hose Barb	Used with 110 GPH Unit	0980498



Stainless Steel Mister Mist'r

Common Uses: Injection of higher volumes of fertilizers and ag chemicals

Volume Capacity: 15 to 300 GPH

Pipeline Size: 3" (76.2 mm) to 12"

ITEM	NOTES	PART NUMBER
Stainless Steel Mister Mist'r, 316SS 1 1/2 x 8" (38.1 x 203.2 mm)		0980267
Ultra Bleeder Valve w/Fittings 3/4 Hose Barb	Used with 150 GPH Unit	0980499

Riverscreens

Valley also offers rotating water-driven, self-cleaning screens that dependably deliver good water to irrigation machines.



- The ideal solution for the operation depending upon river or canal water sources for pivot irrigation systems
- Built for shallow water pumping, preventing sand problems
 - Work in as little as four inches of depth!
- Low maintenance
- #8 304 stainless steel mesh is standard on all Riverscreens
 - Other sizes available upon request
- Work great in livestock lagoons!



Please contact your Valley Technical Sales Manager for quotes.



