

Valley® Water Application

RELIABLE | DURABLE | PRECISE | ADVANCED | RESPONSIVE



VALLEY 

The Leader in Precision Irrigation

Choosing the Right





ht Sprinkler Package

Deciding on the correct water application solution is vital to your pivot's performance. The first set of criteria you need to consider include:

Soil Type (and Texture):

Proper sprinkler selection and design help reduce soil sealing.

Crops to be Raised:

Crop height and the water's ability to penetrate the crop canopy are significant considerations in sprinkler head design.

Terrain of Field:

The slope of the field must be considered to minimize runoff and keep water where it is most needed.

Armed with this information, you will be able to knowledgeably discuss options with the water application experts from Valley. Together, you and your Valley dealer can create the best water application solution for your operation—a solution that will reduce energy costs, save water, and increase your productivity and profitability.

Correct Spacing Ensures Best Results:

Each sprinkler head must be positioned correctly to maximize water delivery, and the overlap of the sprinkler pattern is a critical factor. Valley determines optimum spacing through computerized models to ensure uniform application once the sprinklers are installed in your field.

Low Pressure Sprinklers Conserve Energy:

Low-pressure sprinkler technology provides solutions that lower your energy bill because you are using less water pressure. You can effectively operate sprinklers at 10-20 psi (0,69 - 1,38 bar), which is significantly lower than older sprinklers. Your Valley dealer will help you select a sprinkler package that will reduce soil compaction, reduce sealing, and create excellent water infiltration.





Professionally Designed Sprinkler Packages

- V-Chart software—available only to Valley dealers—is the most comprehensive sprinkler design program in the industry.
- Extensive training prepares Valley dealers to provide the latest sprinkler technology for your fields' soil type(s), crop(s), and terrain.
- Valley can provide sprinkler package designs for competitive brands.
- Water application staff are qualified as Certified Irrigation Designers (CID) by the Irrigation Association to quickly certify a sprinkler package design for EQIP approval.
- Valley inventories a full range of sprinklers, pressure regulators, and drop components.
- Sprinkler package assembly is provided at five locations throughout the United States for fast delivery to our dealer network.



Sprinkler Technology Providing Efficiency and Uniformity

- Droplet sizes are designed to minimize wind drift.
- Combining drops with new sprinkler technology delivers ultimate water savings.
- Distributing water evenly across the field ensures maximum yields.
- Worn out regulators and sprinkler nozzles decrease efficiency and uniformity.
- Replacing or adding pressure regulators achieves proper flow from each nozzle.

Trust Your Valley Dealer

Your Valley dealer will help you select the proper sprinkler package for your soil type, crops, and terrain. Your choices include solutions from Valley, Senninger, and Nelson.

Choose from:

- Rotating Pad
- Impact
- Low Energy Precision Application (LEPA)
- Fixed Pad
- Directional Sprays



Sprinkler Solutions





Lowering the position of the sprinkler reduces spray and drift caused by wind and evaporation. Desired sprinkler placement can be achieved with various Valley applications, such as drops (flexible hose, semi-rigid, and fixed) and boom backs. There are many options available to fit your needs.

Drops

Flexible Hose

- Can be dragged through crop
- Available in 3/4 inch (1,9 cm) hose

Rigid Galvanized

- Available for truss rod height application
- Utilizes 3/4 inch (1,9 cm), schedule 40 galvanized steel

Semi-Rigid Polyethylene

- Corrosion resistant
- Minimal flexibility

Semi-Rigid PVC

- Non-corrosive
- Multiple lengths down to ground clearance of 5.5 feet (1,7 m)
- Utilizes 3/4 inch (1,9 cm), schedule 80 sunlight resistant material

U-pipes, drop weights, fittings

- Additional options to complete any drop sprinkler application

Remote Drains

- Minimize wheel tracks in field
- Move drain water away from wheel tracks
- Run drain water through sprinkler drop hose

Valley Sprinklers

Valley All-Range Pressure Regulator

- Use one model for the entire sprinkler package
- Six models available, 6-30 psi (0,4-2,07 bars)
- Precise water application in hilly terrain

Valley Low-Energy Nozzle (LEN)

- Large variety of available pads
- Unique shape for movement through the crop
- 6-40 psi (0,4-2,8 bars)
- 24-36 feet (7,3-11 m) wetted diameter
- Chemigation and part-circle pads
- Low-pressure operation
- Single, double, or triple deflector pads divide nozzle flow into more streams

Solutions for Reducing Application Intensity

Goosenecks and Truss Rod Hose Slings

- Use the span structure to increase the wetted area, while using the same amount of water
- Lowers application intensity
- Non-corrosive, UV-resistant thermoplastic construction for longer life

End Gun

- Valley offers a full range of end gun selections to maximize your irrigated acres
- Booster pumps can also be paired with the end gun for more pressure

Control Valve

- The 800P End Gun Control Valve works without an electric solenoid when used with a booster pump

Boom Backs

- Discharge water behind drive unit rather than over the wheel
- Used with directional spray units to help keep wheel tracks dry



Crop Protection and Fertilizer Application

You can realize substantial savings when crop protection products and fertilizers are applied through center pivots and linears, rather than through ground rigs or aerial sprays. This is especially true for crops that require several applications during the growing season. The efficient application of inputs will produce a more uniform crop and save you money on labor and application costs.

Sprinkler Solutions

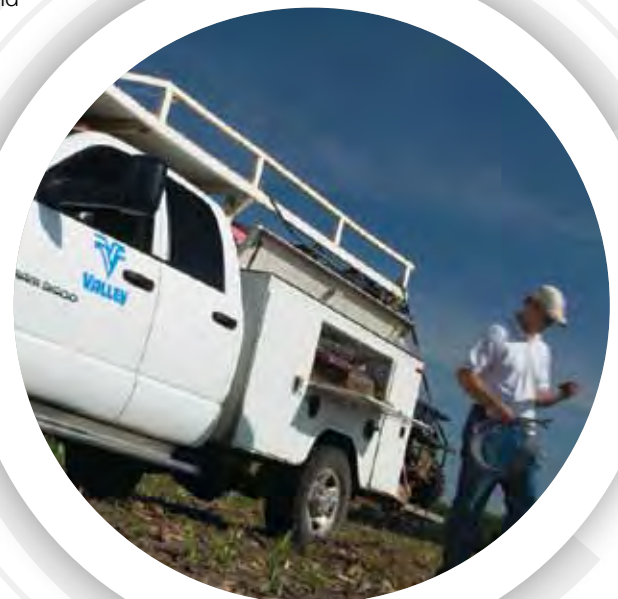


Professional sprinkler packages designed with the exclusive V-Chart software makes your Valley dealer the best choice for a new or replacement package. Uniformity and efficiency of water application are critical to your irrigating needs. V-Chart, in combination with extensive Valley dealer training, will match up the latest sprinkler technology to the soil type, crop(s) being raised, and terrain of your fields. The result is improved soil infiltration, less wind drift, increased water savings, and reduced water runoff.

V-Chart can also be used to design sprinkler packages on competitive machines. In addition, we inventory a full range of sprinklers, pressure regulators, drop components, and provide package assembly at five locations throughout the country for fast service to our dealer network.

Design and Support for the Right Solution

Valley Irrigation supports our dealers with our staff of sprinkler engineers and application specialists to assist in the design of sprinkler packages specifically for mechanized irrigation equipment. The water application staff is qualified as Certified Irrigation Designers (CID) by the Irrigation Association and can quickly certify a sprinkler package design for EQIP approval.





Control Valves

You'll fully appreciate the extra built-in quality and reliability of the Nelson control valve when it performs under the most demanding operating conditions. Different options are available to allow you to control downstream pressure, maintain upstream pressure, and control the rate-of-flow to prevent water hammer. Specify a Nelson 800 Series Control Valve at the Pivot Point and as part of your End Gun Control Package.

Pressure Regulators

- Precision manufactured to feature a dampening system, plug resistance, and expanded flow range
- Single Strut™ technology is standard in all models
- Patented design minimizes "hair-pinning" of debris around inlet seat, reducing the potential for plugging
- Also available with integral connection



3000 Series Pivot Sprinklers

- Combine exceptional droplet uniformity, excellent wind resistance, and optimal soil infiltration rates
- High performance products that factor in soil variety and differing sand, silt, and clay content
- Feature modular design to match the sprinkler to specific field conditions

R3000 Rotator®

- Features the greatest throw distance available on drop tubes
- Wide water pattern from rotating streams equates to lower average application rates, longer soak time, and reduced runoff
- More overlap with adjacent sprinklers improves uniformity

S3000 Spinner

- Uses a free-spinning action to produce a gentle, rain-like water pattern
- Designed for more sensitive crops and soils
- Low instantaneous application rates and reduced droplet kinetic energy to help maintain proper soil structure

O3000 Orbitor®

- Bracketless design minimizes drift
- Designed for long wear life and durability
- Streamlined for excellent movement through canopy and over field obstacles
- Outstanding uniformity and wind-fighting droplets, even at low pressures

D3000 Sprayhead

- A fixed spray, designed with future needs in mind
- Features flip-over cap to change spray patterns as irrigation needs change
- Easily convertible to LEPA

A3000 Accelerator

- Maximizes performance of in-canopy water application
- Designed as a low-pressure hybrid of Rotator and Spinner technology
- Increases rotation speed through the nozzle range to achieve maximum throw distance and wind-fighting capability

T3000 Trashbuster

- Developed for land application of processed water
- Features open-architecture body design to pass debris more easily
- Available with the 3000 FC, a plug-resistant, flow-compensating sprinkler package to simplify maintenance

Nelson Sprinklers



Senninger Sprinklers



i-Wob® UP3

- Off-center rotary action for outstanding uniformity
- Designed for flexible hose drops
- Low application intensity to preserve soil intake rate and to reduce soil compaction, soil sealing, and run-off

Xi-Wob® UP3

- Wobbling action for outstanding uniformity
- Counter-balance design makes it ideal for semi-rigid and steel drops
- Suitable for flexible hose drops when used with the One Weight
- Low application intensity to preserve soil intake rate and to reduce soil compaction, soil sealing and run-off

LDN® (Low Drift Nozzle) UP3

- Multiple deflector pads divide larger flows into various streams resistant to wind-drift and evaporation
- Different combinations of grooved pads help direct the trajectory of streams and control droplet size
- Also available with chemigation pads, a LEPA bubbler pad, shroud and part-circle pads

Super Spray® UP3

- Ideal for surface water due to the distance between the nozzle and deflector, and the deflector and the bracket
- 22 interchangeable pads provide more control over spray pattern and droplet size
- Can be mounted on drops or on top-of-pipe

PSR™ (Pivot Special Regulators)

- Maintains a constant, preset outlet pressure while handling varying inlet pressures
- Large flow path minimizes plugging
- PSR-2 model for easy passage of debris on systems pumping surface water
- Low hysteresis, low friction loss, and vandal resistant housing

Pivot-Master® Impact Sprinklers

- Low, 6° degree trajectory combats the effects of wind
- Bearing assembly design reduces braking friction for dependable rotation and longer life
- Enclosed splash arm spring and bearing provide protection from the elements
- Single and double nozzle models available for different flow and distribution needs



Also Available:

- Drop hose
- Pressure gauges
- Pressure drops



Sprinkler Upgrades

New Sprinkler Technology Provides Efficiency and Uniformity

- Specific droplet sizes are designed to minimize wind drift
- Ultimate water saving is achieved when new sprinkler technology is used in combination with drops
- Worn out regulators and sprinkler nozzles decrease efficiency and uniformity
- Even distribution of water across the field ensures maximum yields
- Replace or add pressure regulators to achieve proper flows from each nozzle

New Aquadock™

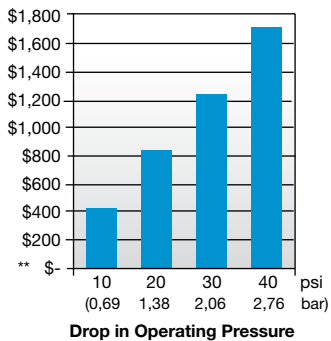
Things change from season-to-season, like the crops you plant. With AquaDock™ you don't need to change your sprinklers each season to account for different crop clearances. AquaDock drop hose docking stations, a new Valley® product offering, lets you adjust your sprinkler clearance height with ease.



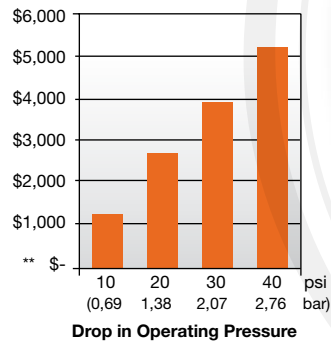
Upgrade an Existing Machine with Valley Water Application Technology

- Low Pressure Sprinklers Conserve Energy
- Effectively operate sprinklers at 10-20 psi (0,69-1,38 bar) to reduce your energy bill

Potential Savings per 1000 Hours of Operation with Electricity



Potential Savings per 1000 Hours of Operation with Diesel



Based on 850 gpm (54 L/s), 80% pump efficiency, \$3.50/gallon (\$0.92/litre) diesel fuel or \$0.08/kW-hr electricity. Savings will also vary on how well the pump and engine fit the lower operating pressure.

*All dollar amounts in \$USD



See your local authorized Valley dealer for complete details.



Valmont® Irrigation has a policy of continuous product improvement and development. As a result, certain changes in standard equipment, options, price, etc. may have occurred after the publication of this brochure. Some photographs and specifications may not be identical to current production. Your local Valley® dealer is your best source for up-to-date information. Valmont Irrigation reserves the right to change product design and specifications at any time without incurring obligations.