

Valley[®] Water Application



RELIABLE

DURABLE

PRECISE

EASY-TO-USE

RESPONSIVE

How to Choose your Sprinkler Package

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

1

Soil type (and texture)

Proper sprinkler design and selection helps reduce soil sealing with medium to heavy soils

2

Crops to be raised

A significant issue with sprinkler head design is its ability to penetrate the crop canopy

3

Terrain of field

The slope of your field must be considered when choosing sprinklers to minimize runoff, keeping water where it does the crop the most good

Using those answers you will be able to discuss options with the water application experts from Valley to determine how to reduce energy cost and save water. In addition, you will know that you have selected the best water application solution to increase your productivity and profitability.

Correct Spacing

Each sprinkler head must be positioned correctly to maximize the delivery of water. The overlap of the sprinkler pattern is a critical factor. Valley accomplishes the optimum spacing through computerized models that 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 irrigate at lower water pressure. You can effectively operate sprinklers at 10-20 psi which is significantly lower than previous generation sprinklers. Your Valley dealer can help you select the correct sprinkler to use to reduce soil compaction, reduce sealing and create excellent infiltration of the water into the soil profile.

Valley Training on Industry Exclusive V-Chart



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 more complete piece of mind while enjoying improved soil infiltration, less wind drift, increased water savings and reduced water runoff.

V-Chart can also be used to design sprinkler packages for all past and present pivot, corner and linear manufacturers. 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 Dealers are highly trained experts in water application and conservation. They also have the Valley V-Chart design program which is an industry exclusive. This program allows them to customize your sprinkler package specifically for your field.

Valley Irrigation supports their dealers with our own 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. We can quickly certify a sprinkler package design for EQIP approval.



New Sprinkler Technology Provides Efficiency & Uniformity

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

Sprinkler Choices

Your Valley dealer will help you select the proper sprinkler package based on the soil type, crops being raised and terrain. Among your choices are solutions from Valley, Senniger and Nelson.

Senninger® Sprinklers



i-Wob®

- Patented off-center action delivers an extremely uniform pattern
- Large diameter of coverage, ultra low application intensity
- Low pressure operation
- Three groove/angle models



LDN® (Low Drift Nozzle)

- Single, double or triple deflector pads divide the nozzle flow into a large number of streams
- Large diameter of coverage, low application intensity
- Chemigation and Part-Circle pads
- Low pressure operation



Xi-Wob®

- Patented counter-balance technology eliminates the need for flexible drops
- Unique wobbling rotary action delivers an extremely uniform pattern
- Large diameter of coverage, ultra low application intensity
- Low pressure operation
- Two groove/geometry models

PSR™ (Pivot Special Regulators)

- Maintains constant nozzle pressure and flow, compensating for elevation changes
- Maximizes system performance, enhances uniformity, and increases efficiency
- Several models based on pressure and flow requirements



Super Spray®

- Wide variety of deflector pads allows customization of droplet size and spray pattern
- Chemigation pads
- No moving parts for product longevity
- Open design makes it ideal for poor quality water



Impact Sprinklers

- 6-degree trajectory helps fight wind drift
- Single and double nozzle models
- Large distance of throw



Also Available

- Hose
- Adapters
- Clamps
- Pressure drops
- Pressure gauges
- Threaded pipe fittings

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. Specify a Nelson 800 Series Control Valve at the Pivot Point and as part of your End Gun Control Package. Different options are available: control downstream pressure, maintain upstream pressure and control the rate-of-flow to prevent water hammer.



Nelson Sprinklers

3000 Series Pivot Sprinklers

- High performance products take into account the variety of soils and their differing content of sand, silt and clay
- Water droplet size and energy affect both wind-fighting ability and the integrity of the soil structure
- Choose the product that best fits your soil type and maximizes efficiency
- Features modular design because no one sprinkler is right for all conditions

Pressure Regulators

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



R3000 Rotator®

- Features the greatest throw distance available on drop tubes
- The 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



D3000 Sprayhead

- A fixed spray designed with future needs in mind
- Features a flip-over cap to change spray patterns as irrigation needs change
- Easily convertible to LEPA
- Shown with optional LEPA Bubbler Clip



S3000 Spinner

- Utilizes 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 help maintain proper soil structure



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 wind-fighting and throw distance while treating the soil correctly



N3000 Nutator®

- Combines a spinning action with a continuously offset plate axis for a highly uniform pattern even in the wind
- Larger, wind-penetrating droplets and low trajectory angles reduce wind exposure for maximum application efficiency



T3000 Trashbuster

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



Options

Placement of sprinklers is also accomplished by different application positions. These include drops (flexible hose, semi-rigid and fixed), boom back and alternatives.

Sprinkler heads placed on drops provide significant improvement over top of the pipe sprinklers when you are

concerned about minimizing water drift and evaporation. Lowering the position of the sprinkler reduces spray and drift caused by wind, and evaporation due to low humidity and high temperatures. They are available in many styles to fit your needs.



Rigid Galvanized



Semi-Rigid Polyethylene



U-pipes



Drop Weight

Drops

Flexible Hose

- Can be drug through crop
- Available in 3/4 inch hose

Rigid Galvanized

- Available for truss rod height application
- Utilizes 3/4 inch, 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 ft.
- Utilizes 3/4 inch, 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

Solutions for Reducing Application Intensity

Goosenecks and Truss Rod Hose Slings

- Using 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 costs

End Gun

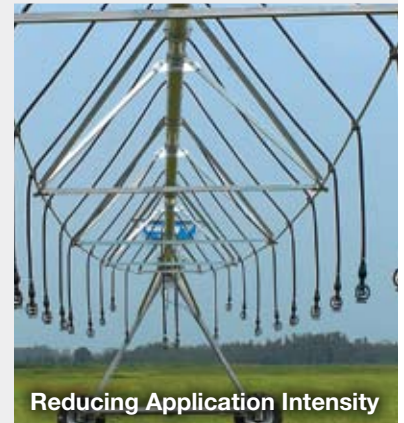
- Valley offers a full range of end gun selections to maximize your irrigated acres
- Booster pumps can also be paired with the end gun when more pressure is needed

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
- Utilized with directional spray units to help keep wheel track dry



Reducing Application Intensity



End Gun



Boom Backs

Valley Sprinklers

Valley All-Range Pressure Regulator

- Use one model for the entire sprinkler package
- Six models available, 6-30 psi
- Precise water application in hilly terrain



Valley® Low-Energy Nozzle (LEN)

- Wide 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
- Large diameter of coverage, low application intensity
- Low pressure operation
- Single, double or triple deflector pads divide the nozzle flow into larger number of streams



Crop Protection and Fertilizer Application

Growers can realize substantial savings when crop protection products and fertilizers are applied through center pivots and linears rather than ground rigs or aerial sprays. This is especially true in the case of crops that require several applications in the course of a season.



ITC Injection Fertilizer Pumps

Injection pumps from Valley are matched to the precise needs of a pivot or linear machine. It enables you to apply crop protection products and fertilizers uniformly, efficiently and economically. You can choose to apply the product above or below the crop canopy depending on the desired effect.



Uniformity

Efficient, uniform sprinkler packages are the best method for applying crop protection and fertilizer products. You save on labor, application costs and enjoy the comfort of reduced concern about poor application results.

Rely on Valley® Dealers

The leaders in Precise Water Application, whether you are looking to upgrade an existing unit or install a new pivot, linear or corner machine.

With today's higher energy prices, more attention to water conservation and higher crop prices, it is critical to ensure you have a uniform and efficient sprinkler package.

Valley Dealers are truly the experts to help you maximize your return from your irrigation investment. They are the most highly trained group in the industry and constantly upgrade their knowledge base to design the sprinkler system that meets your precise needs. Gaining product knowledge and using the industry's most advanced tools, a Valley dealer is your best partner in delivering Precision Irrigation Made Easy.

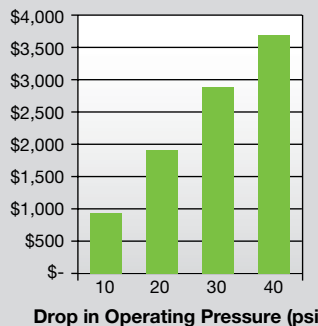


Upgrade an Existing Machine with Valley Water Application Technology

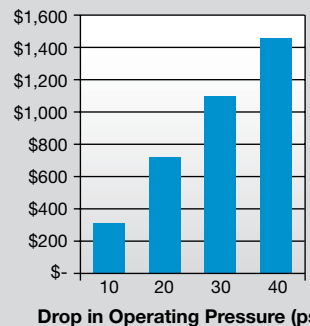
Low Pressure Sprinklers Conserve Energy

Effectively operate sprinklers at 10-20 psi to reduce your energy bill

Potential Savings per 1000 Hours of Operation with Diesel



Potential Savings per 1000 Hours of Operation with Electricity



Drop in Operating Pressure (psi)

Drop in Operating Pressure (psi)

Based on 850 gpm, 80% pump efficiency, \$2.50/gallon diesel fuel or \$0.07/kW-hr electricity. Savings will also vary on how well the pump and engine fit the lower operating pressure.

*All dollar amounts in \$USD



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See your local authorized Valley Dealer for complete details.

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