

Bevattningsteknik ingått samarbete med VALLEY, kan idag presentera

# Water Application



RELIABLE  
DRIVE TRAINS

DURABLE  
STRUCTURES

PRECISE  
APPLICATIONS

ADVANCED  
TECHNOLOGIES

RESPONSIVE  
DEALERS

# How to Choose your 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:

**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

Knowing these three things will allow you to discuss options with the water application experts from Valley. In addition, you will be able to find the best water application solution to reduce energy costs, save water, and 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 (0,69 - 1,38 bar) which is significantly lower than previous generation sprinklers. Bevattningsteknik 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.

## Industry Exclusive Valley Training



Professional sprinkler packages designed with the exclusive V-Chart software makes Bevattningsteknik 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 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.

## Design and Support for the Right Solution

Valley Irrigation support Bevattningsteknik 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.

## 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





# Sprinkler Choices

Bevattningsteknik 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, Senninger, and Nelson.

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

## Senninger® Sprinklers



### i-Wob®

- New UP3 easy clean nozzle – pinch, pull, place, click
- Unique patented off-center rotary action for outstanding uniformity over a large area of coverage
- Ultra low application intensity to help preserve soil intake rate, reduce soil compaction, soil sealing, and run-off
- Low pressure operation
- Four different deflectors based on the desired droplet size and trajectory



### Xi-Wob®

- New UP3 easy clean nozzle – pinch, pull, place, click
- Unique patented counter balance eliminates the need for flexible drops
- Wobbling action for outstanding uniformity over a large area of coverage
- Ultra low application intensity to help preserve soil intake rate, reduce soil compaction, soil sealing, and run-off
- Four different deflectors
- Low pressure operation



### LDN® (Low Drift Nozzle)

- New UP3 easy clean nozzle – pinch, pull, place, click
- Multiple deflector pad levels (single, double, and triple) utilize additional grooves to divide the flow into a number of streams
- Low application intensity to help preserve soil intake rate, reduce soil compaction, soil sealing, and run-off
- Chemigation, part circle, and drag hose options available
- Low pressure operation

### Super Spray®

- New UP3 easy clean nozzle – pinch, pull, place, click
- Wide variety (twenty two) of interchangeable deflector pads to meet specific crop, climates, and soils
- The shape and surface of the pads help control spray pattern and droplet size
- Chemigation and drag hose options available
- Extremely durable, no moving parts



### PSR™ (Pivot Special Regulators)

- Maintains a constant preset outlet pressure while handling varying inlet pressures
- Very low hysteresis and friction losses
- Maximum flow path resists plugging
- Patented design
- 100% water-tested for accuracy (no adjustments ever needed)



### Impact Sprinklers

- Low 6-degree trajectory fights wind drift and evaporation
- Single and double nozzle models are available based on flow and distribution
- Enclosed splash arm spring and bearing provide protection from the elements
- Improved bearing assembly design reduces braking friction for dependable rotation and longer bearing life
- Various nozzle vane combinations available to further enhance distribution



- Also Available:
- Hose
  - Clamps
  - Pressure gauges
  - Adapters
  - Pressure drops
  - Threaded pipe fittings

RELIABLE | DURABLE | PRECISE | ADVANCED | RESPONSIVE

### 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.



## 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 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 to 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



### O3000 Orbitor

- The bracketless design minimizes drift
- Designed for long wear life and durability
- Streamlined for excellent movement through canopy and over field obstacles
- Performs well in poor water conditions because there are no sprinkler body struts for debris to hang up on
- Outstanding uniformity and wind-fighting droplets even at low pressures



### 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 backs, and alternatives.

Sprinkler heads placed on drops provide significant improvement over the 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 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

## 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

### 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
- Utilize with directional spray units to help keep wheel track dry



Reduced Application Intensity



End Gun



Boom Backs



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## 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)

- 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 a 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 throughout the growing 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 water, crop protection, and fertilizer products. You save on labor and application costs, and can produce a more uniform crop due to uniform applications of inputs.

# Rely on Bevattningsteknik

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.

Bevattningsteknik are truly the experts to help you maximize your return from your irrigation investment. With the industry's most advanced product knowledge and tools, Bevattningsteknik is your best partner.

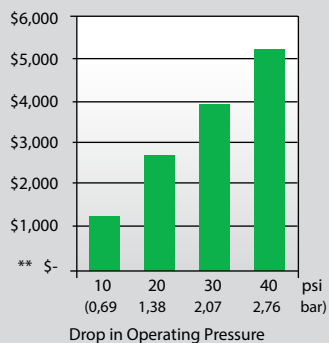


## Upgrade an Existing Machine with Valley Water Application Technology

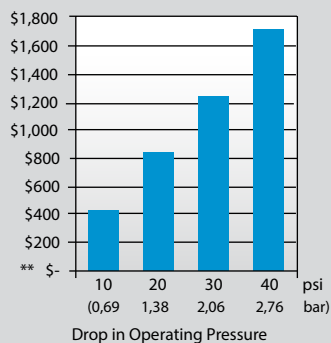
Low Pressure Sprinklers Conserve Energy

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 Diesel



Potential Savings per 1000 Hours of Operation with Electricity



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



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