



*"No site is the same so no pump station is the same. Rain Bird designs and builds my pump stations based on my specifications and measurements so I can count on a quick and easy installation."*

**Nick Shebert**  
TurfPro

Introduction

Spray Bodies

Spray Nozzles

Rotors

Impacts

Valves

Controllers

Central Controls

**Pumps**

Landscape Drip

Accessories

Resources

Reference



## Water Saving Tips

- Newer high-efficiency motors are able to convert a higher percentage of their electric input to useful mechanical work resulting in energy and cost savings
- Rain Bird Variable Frequency Drive (VFD) pump stations save energy while delivering the water pressure necessary to ensure maximum water use efficiency
- Rain Bird designs pump stations specifically for the application, ensuring that the pump runs at maximum efficiency. Delivering the right pressure as demanded by the system ensures your irrigation system is efficient and effective. For assistance call 520-806-5620 or email [pumps@rainbird.com](mailto:pumps@rainbird.com)

### Low Profile Pump Station (LP)

NEW

0.5 to 10 hp; Up to 120 psi (8.1 bar); Up to 235 gpm (1.8-27.2m<sup>3</sup>/h)

- Cost effective – Standardized drive only pump system that delivers high performance with minimum investment
- Low Profile – Compact aluminum marine enclosure with powder coated piping
- Energy efficient – Variable Frequency Drive (VFD) maintains constant pressure at varying flow demand
- Reliability – Simple standard design, easy installation and maintenance



Low Profile Pump Station (LP)  
with NEMA 3R enclosure



Interior of Low Profile Pump Station (LP)

### Features

- Vertical multistage or horizontal end-suction pumps for boost, flooded suction, or suction lift applications
- Small marine-grade, low-profile aluminum enclosure
- Separate NEMA 3R electrical controls enclosure
- Steel pipes throughout
- Corrosion resistant powder coating on skid, pipes and flanges
- Pump Start Relay
- Variable Frequency Drive for maximum efficiency
- GT 1020 Operator touch screen
- Circuit breaker motor protection
- Auto restart capability
- Surge protection
- Low pressure discharge alarm – dry run protection
- Pump thermal switch (safety shutdown)
- Fan and louver cooling
- Inlet/outlet pressure gauges

### Options

- Environmental Package: Insulation and heater
- Audible/visual Alarm
- Pressure Relief Valve (PRV)
- Z - Pipe(s)
- Expansion tank and flow switch: If pump start signal is not available
- Swing Check Valve: for suction lift application
- Pump bypass manifold
- Flow meter: Inlet/discharge thru enclosure wall only if flowmeter is chosen

### Electrical Power Specification

- 60Hz, 3-phase power: 208V, 230V, 460V
- 60Hz, 1-phase power: 208V, 230V

### Application

- Choose the Low Profile Pump Station for small to midsize boost, flooded suction and suction lift applications such as, city parks and buildings, sports fields, commercial buildings, small home owner's associations, and large residential sites



## “D” Series Pump Stations D/DP/DPX-Series Pump Stations

Flows Up to 300 gpm (68 m<sup>3</sup>/h) and Greater, Discharge Pressures Up to 150 psi (10.3 bar)

- Reliability – Integrated Plug-n-Pump Stations (up to 300gpm) provide single source responsibility for the entire pumping system insuring trouble-free installation and operation
- No hassle buying – Purchase all irrigation system components from Rain Bird facility in Tucson, Arizona
- Easy start-up – All stations are wet tested prior to shipment

### Features

- Vertical multistage pump for flooded suction or pressure boosting applications
- Horizontal end-suction pump for flooded suction, pressure boosting, or suction-lift applications
- Variable Frequency Drive for maximum energy efficiency
- Monochrome-backlit touch screen operator interface makes for easy operator training
- Power-loss auto-restart ensures seamless operation on loss and regain of electrical power
- Operator touch screen
- Vandal resistant enclosure in PGS8-C0651 fence green or FS 20450 night tan

### Options

- Environmental Package: Insulation and heater
- Audible/visual alarm
- Pressure Relief Valve (PRV)
- Z - Pipe(s)
- Expansion tank and flow switch: If pump start signal is not available
- Swing Check Valve: for suction lift application
- Pump bypass manifold
- Flow meter: Inlet/discharge thru enclosure wall only if flowmeter is chosen

### Electrical Power Specifications

- 60 Hz, 3-phase power: 230V, 460V, 575V
- 50 Hz, 3-phase power: 190V, 380V, 415V
- 60 Hz, 1-phase power: 230V (up to 10 hp per pump)

*Note: See the “Pump Station Specification Guide for Low Profile and D-Series Pumps” on page 233*

### D-Series Features

- Drive-only pump system that cost effectively delivers no-frills high performance

### D-Series Applications

- Residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications requiring a reliable pump station delivering the pressure and flow rate required by the irrigation system

### DP-Series Features

- Programmable logic controller (PLC) allows controls beyond pressure and flow such as lake level controls, actuated automation filtration, and the ability to alter pressure set points based on time (variable pressure settings)

### DP-Series Application

- Residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications up to 300 gpm, with pressures up to 150 psi requiring programmable logic controls



D-Series



DP-Series

### D-Series, DP-Series and DPX-Series Pump Stations (cont.)

#### DPX-Series Features

- Seamless system integration with Rain Bird SiteControl software (requires optional full color touch screen)
- Liquid-cooled NEMA 3R electrical panel ensures reliability and longevity in hot climates
- Programmable logic controller (PLC) allows controls beyond pressure and flow such as lake level controls, actuate automation filtration, and alter pressure set points based on time (variable pressure settings)
- Selection of the full color touch screen and modem options provides communication between the pump station and central control computer
- Power-loss auto-restart ensures seamless operation on loss and regain of electrical power

#### DPX-Series Application

- Warm climate residential and commercial flooded-suction, pressure boosting, and suction lift irrigation applications up to 300 gpm, with pressures up to 150 psi requiring liquid cooled electronics
- When communication between the pump station and Rain Bird SiteControl is desired

#### DPX-Series Options

- Full color touch screen with Spanish and English operator screens. This option is required for communication between the pump station and central control computer
- Hard wire or radio communication modems
- Filtration or wye strainer with auto flush
- Self cleaning inlet screen
- Pump start relay
- "Z" pipe
- Lake level controls
- Pump bypass
- Environmental Package: Insulation and heater
- Suction lift assembly

"D" Series Pump Features			
Item	PLC REQUIRED DPX	PLC REQUIRED DP	NO PLC D
Reliable Delivery of Required Pressure and Flow	✓	✓	✓
Remote Pump Monitoring (using Pump Manager)	✓		
Multiple Pump Applications	✓	✓	
Lake Level Controls	✓	✓	
Pressure or Flow (max or min settings)	✓	✓	✓
Full Color Touchscreen Option	✓		
Filtration Controls	✓	✓	
Self Cleaning Inlet Screen	✓	✓	
Communication Between Pump Station and Central Control	✓	✓	
Heat Exchanger in Warmer Climates	✓		
PLC - Programmable Logic Control	✓	✓	
Pump Thermal Safety Switch	✓	✓	✓



Color Touchscreen  
(Standard on D, DP, DPX Series)



DPX-Series

## Intermediate Flow Pump Stations

Flows Up to 750 gpm (170 m<sup>3</sup>/h) at 120 psi (8.3 bar). Higher Flows Available at Pressures Less than 120 psi (8.3 bar)

- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- Easy Operator Training – Easy to navigate monochrome touch-screen
- Reduced Cost – Our powder coat paint earned a perfect rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost

### Features

- Everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation for over seven decades
- Easy installation and start-up
- Dry no-flow protection and thermal safety

### Application

Mid to large projects such as golf courses, parks, lake transfer sports fields, nurseries, turf farms, and other agricultural projects

### Options

- Air conditioner electrical panel cooling
- Enclosures: aluminum, painted steel (government specified colors), or stainless steel
- Full color touch-screen with English and Spanish
- Magnetic flow meter
- Modem, radio or hard-wired
- Totally enclosed, fan cooled (TEFC) motor
- Wye strainer with auto back-flush
- Z discharge pipe

### Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 190V (up to 60hp per pump), 380V, 415V
- 60 Hz, 1-Phase Power: 230V (up to 30hp per pump)



Intermediate Flow Pump Stations Color Touchscreen (Optional on D, DP, DPX Series)



Intermediate Flow Pump Station

### Main Irrigation Pump Stations

Flows Up to 10,000 gpm (2,300 m<sup>3</sup>/h)

- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life
- Reduced Downtime – Modern electrical design that uses industrial circuit breaker motor protection instead of time wasting fuses. Industrial circuit breakers are good for thousands of trips
- Easy Operator Training – English and Spanish color touch-screen that is easy to learn

#### Features

- Reduced cost: Powder coat paint earned the highest rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost
- No-hassles buying: Everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation
- Real-time communication between the pump station and Rain Bird Central Control

#### Application

Reliable Variable Frequency Drive Pump Stations designed to serve as the main irrigation pump station for large commercial sites and projects. Rain Bird Pump Systems are designed for both new construction projects and can be custom built for tough-to-fit renovation projects

#### • Available in the following configurations:

- Vertical and submersible turbine pump stations for wet-well applications
- Horizontal end suction for flooded suction, suction lift, and pressure boosting applications
- Multistage pumps for flooded suction and pressure boosting applications where differential pressures greater than 130 psi (9 bar) are required

#### Options

- Air conditioned electrical panel cooling system
- Custom controls
- Custom piping and manifolds
- Enclosures: aluminum, painted steel (government specified colors) or stainless steel
- Fabricated discharge heads
- Fertigation systems
- Filtration: backwashing screen filters and suction scan filters (hydraulic or electric)
- Heater, skid mounted 5KW
- Intake box screen with 3 stainless steel screens
- Lake level control: float switch and ultrasonic
- Magnetic flow meter
- Modem, radio or hard-wired
- Power zones: 5, 7.5, or 10KVA
- Totally enclosed, fan cooled (tefc) motors
- Wye strainer with auto back-flush
- Z discharge pipe
- HDPE piping and manifolding

#### Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 190V (up to 60hp per pump), 380V, 415V
- 60 Hz, 1-Phase Power: 230V (up to 30hp per pump)



Main Irrigation Pump Station

## Water Feature Pump Stations

Flows Up to 10,000 gpm (2,300 m<sup>3</sup>/h) and Greater

- Adjustable Look – The VFD allows for altering the look of a water feature by adjusting the pump run speed
- Save Energy – “Night-Run” Mode runs VFD driven pump at minimum speed, minimizing energy cost while preventing stagnant water
- Enhanced Serviceability – Modern electrical design utilizing industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life

### Features

- Monochrome touch-screen operator interface
- Powder coat paint earned a perfect rating on ASTM corrosion tests. Less corrosion equals longer pipe, skid, and manifold life, reducing cost

### Application

Reliable Variable Frequency Drive (VFD), water feature pump stations allow adjustable water feature appearance and provide a “Night-Run” mode that prevents stagnant water when the full look of the water feature is not desired. Constant speed systems require that the system be on or off, allowing water to stagnate during non-running periods.

- Available in flows up to 10,000 gpm and greater in the following configurations:
  - Vertical turbine pump stations for wet-well applications
  - Split-case and horizontal end suction for flooded suction applications



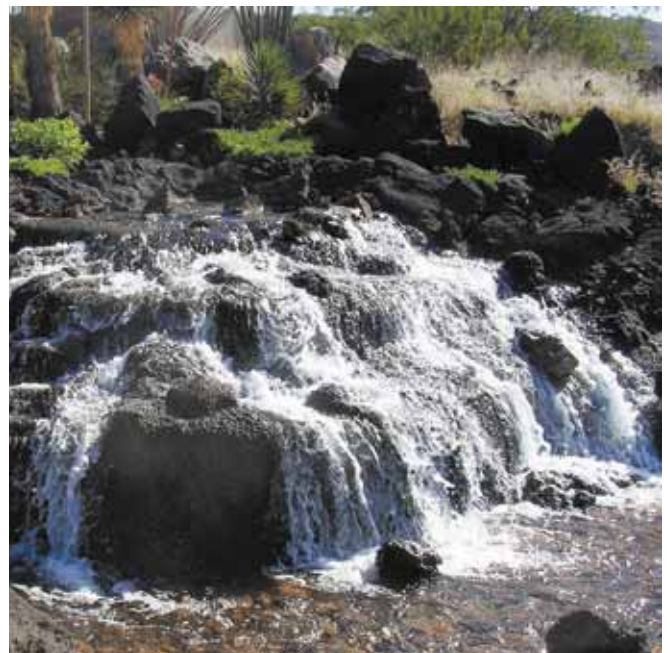
Water Feature Pump Station

### Options

- Air conditioner electrical panel cooling
- Custom controls
- Custom piping and manifolds
- Enclosures: aluminum, painted steel (government specified colors) or stainless steel
- Fabricated discharge heads
- Filtration: backwashing screen filters and suction scan filters (hydraulic or electric)
- Heater, skid mounted 5KW
- Intake box screen with 3 stainless steel screens
- Lake level control: float switch and ultrasonic
- Totally enclosed, fan cooled (TEFC) motors
- Wye strainer with auto back-flush
- Z discharge pipe
- HDPE piping and manifolding

### Electrical Power Specifications

- 60 Hz, 3-Phase Power: 230V (up to 60hp per pump), 460V, 575V
- 50 Hz, 3-Phase Power: 190V (up to 60hp per pump), 380V, 415V



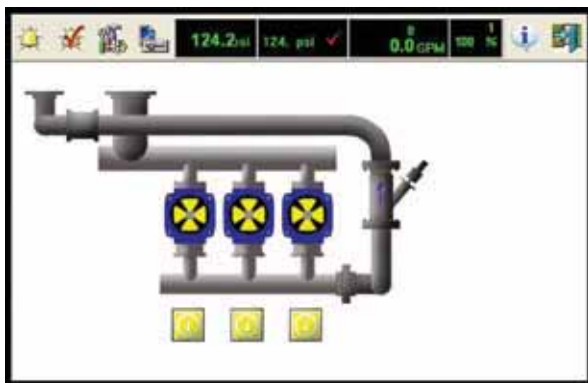
## Pump Manager with SmartPump™

Combine a Rain Bird Pump Station and site control software to fully integrate pump station operation with your site control software with real-time communication.

### Pump Manager with SmartPump™

- Matches irrigation system operation with the real capacity of the pump station, shortening the water window and decreasing energy consumption
- Alerts the superintendent in real time of irrigation and pump station problems via cell phone text message
- Responds to irrigation system and pump system problems in real-time. Other systems can lose an hour of irrigation time trying to recover from a fault

Pump Manager with SmartPump™ provides for pump station control and full monitoring capabilities from the site control

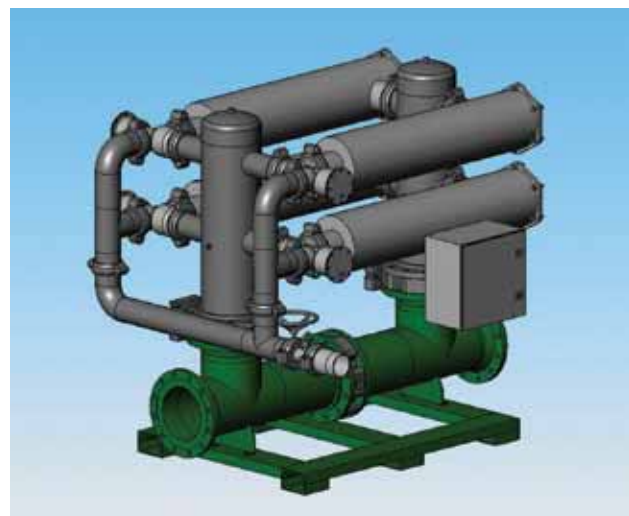


## Rain Bird Filtration Systems

Need filtration due to lowering water quality or getting ready to switch to reclaim? Rain Bird can fabricate custom filter manifolds and integrate leading back-washing screen filters or suction-scan filters to yield a filter system that is ready to install.

### Filter Systems are available for flows up to 10,000 gpm and available with:

- Backwashing screen filters with epoxy coated steel
- Hydraulic or electrically operated suction-scan filters in painted steel or stainless steel construction



## Pump Station Service

Rain Bird fields a nationwide network of Authorized Service Providers to ensure your pump station remains in operation. Additionally, Rain Bird also offers Phone Support, Preventative Maintenance Plans and Full Service coverage during and after the Customer Satisfaction Policy is completed. Add these services to your purchase to get the full package. Contact your authorized Rain Bird Distributor for details.



### Filter Screen Mesh Number and Micron Cross Reference

Filter Screen Conversion	
MESH #	MICRONS
35	500
40	400
45	354
50	297
60	250
70	210
80	177
100	149
120	125
140	105
170	88
200	74

## LM Series

Single Pattern Lake Management Aerators

- Keep lakes and ponds beautiful by stimulating vertical circulation and adding dissolved oxygen to the water
- Maintain sufficient water quality that prevents undesirable algae build-up, over-growth of weeds, unpleasant odors and depleted fish population
- Effectively work to maintain an ecological balance in lakes or ponds less than 15 feet (5 m) deep

### Features

- Available in 1 - 5 hp pumps, 115V, 230V, single and three-phase
- All LM units are factory assembled, delivered ready to install
- Heavy-duty 304 stainless steel arms support a float filled with US Coast Guard-approved closed cell foam, for maximum buoyancy
- Stainless steel housing contains a custom-built electric motor, designed to move high volumes of water and provide years of dependable service
- Unique pumping chamber attachment on the motor housing allows high pumping rates for maximum circulation
- Deflector plate provides an appealing display
- Fine mesh screen prevents the intake of debris to allow the continuous flow of incoming water, and ensures full and symmetrical spray patterns when in operation
- LM11 only - virtually unbreakable stainless steel chopper-style prop
- Specially designed float rings allow the unit to ride level in the water

### Specifications

- Unit: Manufactured of corrosion-resistant, 18-8 stainless steel and high-density thermal plastics. Corrosion resistance allows unit to be installed in almost all water source types
- Float: Green exterior shell is made of high-density thermal plastic polyethylene. The interior of the float is closed-cell polyethylene
- Motor: Custom-built electric motor with dynamically balanced rotors. Encased in a stainless steel housing that is completely hidden from view
- Cable: All units are shipped with underwater cable, ordered separately with 50 feet minimum, in 25 foot increments\*
- Screen: 1/4" nylon fine mesh water intake screen for LM10, LM20 and LM30 models only
- Power Control Center: NEMA 3R rated control center includes ground fault interrupt; magnetic starter; surge arrestor; power disconnect; 24-hour on/off timer
- Safety Testing: Components UL and CSA listed; assembly tested and approved by ETL, ETL-C and CE

\* 10 gauge underwater cable ordered separately in 25 foot increments

### Models



LM10: Principal feature is a one-plume geyser-like spray pattern that rises high into the air



LM11: Well proportioned fan-shaped spray is a perfect balance of form and function



LM20: Popular dual spray pattern offers adds aesthetic benefits while effectively maintaining water quality



LM30: Differentiating feature is its multi-dimensional three plume design

### Optional Features

- 3-light set systems run on 12-volt power and are available with 65-watt halogen bulbs
- Colored lenses in red, blue, green and yellow
- Intake screen is optional for LM11



Overview of LM20

### LMM Series

Multi-Pattern Lake Management Aerators

- Effectively work to maintain an ecological balance in lakes or ponds less than 15 feet (5 m) deep
- Keep lakes and ponds beautiful by stimulating vertical circulation and adding dissolved oxygen to the water
- Maintain sufficient water quality that prevents undesirable algae build-up, over-growth of weeds, unpleasant odors and depleted fish population

#### Features

- Available in ½ and ¾ hp, 115V, 230V, single phase pumps
- All LMM units are factory assembled, delivered ready to install
- Manufactured entirely of stainless steel and thermal plastics to provide years of dependable service
- Stainless steel debris screen prevents the intake of foreign objects to allow the continuous flow of incoming water, which ensures aesthetically pleasing spray patterns
- Mini power center is encased in industrial-grade, non-corroding case to assure reliability
- Spray pattern can be changed to LM10, LM20 or LM11
- Diffuser ring allows the spray pattern to be varied in height and diameter (LMM with LM10 and LM11 patterns only)

#### Specifications

- Unit:** Manufactured of corrosion-resistant, 18-8 stainless steel and high-density thermal plastics. Corrosion resistance allows unit to be installed in almost all water source types
- Float:** Black exterior shell is made of high-density thermal plastic polyethylene. The interior of the float is closed-cell polyethylene. Each float consists of specially designed float rings, which call the unit to ride level in the water
- Motor:** Custom-built submersible, water-cooled, corrosion-resistant, stainless steel motor. Constructed to run continuously and is available in 60 Hz @ 3450 RPM
- Impellers/Props:** Manufactured of polyphenylene oxide, modified. Material is corrosion-resistant to most all types of water, salt solutions and acids
- Cable:** All units are shipped with underwater cable, ordered separately with 50 feet minimum, in 25 foot increments\*
- Mini Power Center:** 115V unit controls are enclosed in a 5" x 5" x 4" industrial-grade, all plastic, non-corroding case. 115V controls consist of 24-hour on/off timer and GFI. 230V units are enclosed in a 11" x 11" x 6" high-impact, corrosion-resistant thermal plastic, NEMA rated type 3S. 230V unit controls consist of 24-hour on/off timer, fuse or circuit breaker protection and GFI
- Screen:** Corrosion-resistant 18-8 stainless steel intact screen to efficiently prevent clogging
- Safety Testing:** Safety tested and approved as a package by ETL, ETL-C and CE

\* 12 gauge underwater cable ordered separately in 25 foot increments

#### Models

- Includes 3 interchangeable nozzles to change from LM10, LM11, LM20



LM10: Principal feature is a one-plume geyser-like spray pattern that rises high into the air



LM11: Well proportioned fan-shaped spray, it is a perfect balance of form and function



LM20: Popular dual spray pattern offers adds aesthetic benefits while effectively maintaining water quality

#### Optional Features

- 2-light set systems run on 12-volt power and are available with 20-watt halogen bulbs. Stainless steel mounting brackets facilitate installation to achieve a variety of illumination effects
- Colored lenses in red, blue, green and yellow



LMM Shown with LM20 Pattern Selected