

PUMPS AND FILTRATION



Rain Bird applies its world-leading irrigation expertise to the design and manufacture of pump stations. By doing so, Rain Bird is the only irrigation manufacturer able to provide totally integrated irrigation solutions, Reservoir to Rotor. Rain Bird's solutions reliably and dependably deliver a more playable course, while lowering operational costs with Smart Pump.™



Rain Bird offers a variety of pump station options to meet your specific needs. These options include pre-fabricated skids with vertical turbine lift pumps, horizontal centrifugal flooded suction or suction lift pumps, self-contained booster pumps, split-case water feature pumps, submersible or floating skid pumps and more. Featuring Variable Frequency Drive technology, every station is engineered and custom-built for the specific user requirements.

Additional customization includes:

- Pressure maintenance and/or jockey pumps for smaller daily watering needs
- Pumps from 3 H.P. to 200 H.P.
- Up to six main pumps
- Custom skids and retrofit options
- Integrated filtration systems
- Additional power zones

FEATURES AND BENEFITS

Electrical Design — Rain Bird® Pump Stations use a sophisticated suppression system to reduce the risk of electronic component damage that could lead to inconvenient and costly downtime. This includes full heavy duty circuit breaker integration that provides protection for the motor and is easier and less expensive to service.

Engineered Pump Station Skid Design — Using 3D modeling, the channel steel skid frame is engineered for strength and rigidity. This engineering reduces the vibration and eliminates the requirement for oversized pump mounting plates. The top deck is the industry's strongest and longest-lasting by providing 3/8" plate throughout with heavy duty 1/2" pump mounting plates continuously welded on top of the engineered frame.

Durable Polyester Powder-Coating — Rain Bird's in-house sandblasting system assures all surfaces of the pump station are prepared properly to allow for the best coating adhesion. The polyester powder-coat Rain Bird applies is far more durable than liquid coatings, and will not deteriorate over time like other coatings that often develop a chalky appearance. In fact, Rain Bird's powder-coating process scored a 10 out of 10 on an ASTM corrosion test provided by Sherwin Williams. Other industry pump stations scored 4 out of 10 on the very same test. In addition, the powder-coating process is environmentally friendly.

VFD Per Motor (VPM) Option — Rain Bird offers the industry's most comprehensive package by designing custom stations upon request to include a VFD for each motor on a multi-pump station. This option offers superior motor protection along with no mechanical switching.

Advanced Controls — Using a simple-to-operate touch screen interface, Rain Bird offers the most advanced control package in the industry.

Automatic Adjusting Pressure Set Point — Save money and wear by maintaining a lower pressure set point until higher flows are demanded.

Real-Time Irrigation System Integration — With Rain Bird's Smart Pump™ central control software, Rain Bird pump stations lead the industry in energy efficiency. No other manufacturer provides this total integration and truly manages the operation of the pump throughout the irrigation cycle.

Note: Compatible with all Cirrus™, Nimbus™ II, Stratus™ II and StratusLT™ central control software systems.



MAIN IRRIGATION PUMP STATIONS

Flows Up To 10,000 GPM (2,300 m³/h)

Benefits:



- **Enhanced Serviceability:** Modern electrical design utilizes industrial breaker motor protection instead of time-wasting fuses. Industrial circuit breakers are quickly reset and designed for an extended service life.
- **Reduced Downtime:** Industrial circuit breakers are good for thousands of trips.
- **Easy Operator Training:** Six languages on the color touchscreen provide an easy-to-use interface.
- **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.
- **No-Hassles Buying:** Get everything you need for your irrigation system construction or renovation from the only manufacturer dedicated to irrigation for over seven decades.
- **Real-Time Communication:** The pump station communicates in real-time with the central, allowing the central to make immediate decisions to maximize the efficiency of the entire irrigation system.

Application

Reliable Variable Frequency Drive Pump Stations designed to serve as the main irrigation pump station for large commercial sites and projects. Rain Bird's 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

Available Options:

- Air Conditioned Electrical Panel Cooling
- 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 Scanning
- HDPE Piping and Manifolding
- 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
- Premium Efficient Motors
- Totally Enclosed, Fan-cooled (TEFC) Motors
- 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

Flows Up To 750 GPM (170 m³/h) At 120 psi (8.3 bar)

Higher flows available at pressures less than 120 psi (8.3 bar)

Reliable variable frequency drive, single horizontal end suction pump stations are designed to boost pressure on golf courses with elevation changes, lake transfer or serving as the main irrigation pump station on smaller golf courses configured for flooded-suction or suction lift.

Benefits



- **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 startup

Available Options

- Air Conditioned Electrical Panel Cooling
- Enclosures: Aluminum, Painted Steel (Government Specified Colors) or Stainless Steel
- Full-color Touch Screen with the option of six languages
- Magnetic Flow Meter
- Modem, Radio or Hard-wired
- Totally Enclosed, Fan-cooled (TEFC) Motors
- 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)

EV TWIN VERTICAL PUMP STATIONS

Providing Up to 1,500 GPM (340 m³/h) at 20 psi (8.3 bar)

For 60Hz/460V–575V applications

Providing Up to 273 m³/h at 8.3 bar

For 50Hz/380V–415V applications

The EV Twin Vertical Turbine Pump Stations are intended for standard wet-well applications with a 48" (1.2 m) to 60" (1.5 m) diameter and a depth of either 12' (3.7 m) or 15' (4.6 m).

For use on golf courses, commercial and municipal sites utilizing a wet-well and requiring the redundancy of a twin vertical turbine system to deliver up to 1,500 GPM at 120 psi for 60Hz applications and up to 273 m³ at 8.3 bar for 50 Hz applications.

Benefits

- **Easy Operator Training:** Monochrome touch screen operator interface.
- **Easy Installation and Start-Up:** All stations are wet-tested prior to shipment.
- **No-Hassles:** Purchase all irrigation system components from one supplier.

Features

- Air to Liquid Control Panel Heat Exchanger for maximum VFD life
- NEMA 4 Electrical Panel for maximum protection of electrical components
- RU Vertical Turbine Pump Motors
- Electrical Power Surge Protection
- Power-loss auto-restart ensures seamless operation on loss/regain of electrical power
- Modern electrical design employs industrial grade circuit breaker motor protection instead of outdated and expensive-to-replace fuses
- Complete skid and piping garnet-blasted and powder-coated for maximum corrosion resistance

- Pressure relief valve with butterfly isolation valve protects the station from over-pressurization while ensuring serviceability
- Stainless steel pressure transducer for maximum durability
- Mechanical actuated air relief system to ensure smooth system operation
- Individual pump silent check valves and isolation valves
- Integral wet-well service hatch
- Lake level floats prevent inadvertent dry-running of vertical turbine pumps
- 3HP (2.2kW) Stainless Steel Pressure Maintenance Pump and Motor

Available Options

- Non-Reverse Ratchets for Vertical Turbine Pump Motors
- Magnetic Flow Meter
- Wye Strainer
- Premium Efficient Motors

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 Station

WATER FEATURE PUMP STATIONS

Flows up to 10,000 GPM (2.3 m³/h) and greater

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 (2.3 m³/h) and greater in the following configurations:

- Vertical turbine pump stations for wet-well applications
- Split-case and horizontal end suction for flooded suction applications

Benefits

- **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.

Available Options

- Air Conditioned 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
- Premium Efficiency Motors
- 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

FILTRATION

Stand-Alone Back Washing Screen, Suction Scanning Screen, and Sand Media Filtration Packages can be ordered for new or existing systems.

Benefits

- **Easy Installation:** Rain Bird’s custom design capabilities allow us to fabricate filter manifolds to fit pre-existing connections. We can also provide manifolds with intake to discharge centerline matched to allow installation on a pre-existing irrigation pipeline.
- **Easy to Operate:** Easy to navigate monochrome touch-screen allows user to quickly set time-based and differential pressure settings.
- **Reduced Irrigation System Concerns:** Filtration minimizes the amount of waterborne debris introduced to your irrigation system and is the best answer for reclaim water-use challenges.



RETROFIT PANELS

- **Increased Reliability:** Replace aging and obsolete panels and components with the latest VFD and PLC technology and touchscreen.
- **Better Irrigation Efficiency:** Installing a Rain Bird pump station retrofit panel allows Rain Bird Central Control customers to optimize their irrigation system using Rain Bird’s Smart Pump™ software. SmartPump is the only software that integrates operation of your central control and pump station in real time.
- **Reduced Maintenance:** Modern panels equipped with circuit breakers allow you to leave behind the hassles of out-dated fuses, reducing down-time and maintenance cost.



PUMP MANAGER WITH SMART PUMP™

Combine Rain Bird's pump station and central control software to fully integrate pump station operation with your central control. This combination allows the pump station and central control to respond to changes in the system and irrigation immediately, providing the highest level of efficiency.

Smart Pump™ matches the irrigation system operation with the real capacity of the pump station, shortening the water window by an average of 20 percent and decreasing energy consumption. In addition, Smart Pump alerts the superintendent in real time of irrigation and pump station problems via cell phone text messaging. When an issue occurs such as an irrigation pipe break, the system verifies the break, shuts down the system and notifies the superintendent. Other systems cannot respond in a timely manner and can lose an hour of irrigation time trying to recover from a system fault.



ASP NETWORK

Rain Bird pump stations are professionally installed and serviced by Rain Bird Services Corporation (RBSC) and our factory trained, professional Authorized Service Provider (ASP) network. A comprehensive offering of technical support, preventative maintenance, extended customer satisfaction policy plans and other service solutions are available from RBSC by calling (888) 444-5756 or visit the web at www.RainBirdServicesCorporation.com.

