

Vertical Turbine Pump Stations

VFD Pump Stations Custom Designed for Your Flow and Pressure Requirements

Rain Bird's pump station manufacturing facility located in Tucson, Arizona delivers complete vertical turbine pumping solutions with on-site design, fabrication, and performance testing.

3D solid modeling system ensures precise pump station design and reliable field installations.

Color, LCD, touch-screen interface standard feature on all vertical turbine pump stations provides a user friendly menu system enabling pressure and flow setting adjustments, displaying pump station performance, and alarm conditions.

Benefits

- Pump station base, pipe, and fittings receive a 5-7 mm thick single layer polyester based powder coating process on all surfaces providing superior UV degradation protection and enhanced abrasion resistance
- Cast iron pump bowls with enamel or epoxy lined waterways reduce friction losses, enhance wear protection, and maximize efficiency
- Cast bronze enclosed type impellers machined, balanced, and trimmed for optimum performance
- Cast iron pressure relief valves operating 7-10 psiG above operating pressure providing quick opening and slow closing response minimizing surge installed on the discharge manifold
- Carbon steel pump base with 1/2" deck plate, 4" and/or 6" channel construction providing rigidity to withstand operational stresses and insuring the pump shafts remain true in their vertical hanging orientation
- Complete instrumentation and control system automatically starting, stopping, and modulating pump speed(s) to maintain constant discharge pressure with variable flow rates providing efficient and reliable performance
- Optional NEMA 4 rated electrical panel including circuit breakers, main disconnect interlocked with door, lead pump motor with dual contactors allowing operation with or without the VFD
- Mitsubishi PLC with emergency mode allowing pumps to operate without touch screen control
- Sealed cooling system designed to remove the heat generated by the variable frequency drive (VFD) via an air to water heat exchanger significantly extending the electronics operational life. Optional air condition cooling available
- Color Touch Screen Operator Interface (TSOI) provides access to all pump station information including logging, alarms, and current status readings. TSOI enables the user to select and change all pump and pressure settings while



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Helpful Tools

Need help specifying a pump?

Call 520-806-5620 or
click here to have a
Rain Bird Pump Sales
Rep contact you for
assistance with quotes



Distributor Referral

Find a Rain Bird
Pump Station
distributor in
your local area.



LCD touch-screen interface



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**Rain Bird's Industry Leading
Powder Coat Paint Process
Maximizes Corrosion
Resistance, Minimizing
Maintenance and Long Term
Costs**



[click to enlarge](#)

Vertical Turbine Pump Station

protecting the system from accidental programming errors by password protecting sensitive setup readings

Features

- Cast iron discharge heads with 2 mil thick enamel coating, headshaft coupled above the stuffing box assembly, and 125 lb. ANSI discharge flanges
- 1800 RPM, NEMA B, squirrel cage induction motors with vertical hollow shafts, non-reverse ratchet, WPI enclosures, and rated for continuous duty
- Submersible pressure maintenance/jockey pump maintaining system pressure during stand-by periods or quick coupler usage
- Control software enables user access to all operational parameters. Standard control features include emergency stop, low and high discharge pressure, low lake level, phase loss, low voltage, VFD fault, flow meter fault, and optional motor over temperature
- TSOI default screen displays real-time and set point pressures, VFD speed %, flow, fault conditions, pump selected for VFD operation, and the pump(s) operational status
- Rain Bird provides training for the end user on proper pump station operation after successfully completing installation, startup, and calibration
- Complete annual preventative maintenance programs available combined with winterization services, 24/7 phone support, and local authorized service providers

Vertical Turbine Pump Station Configuration

- (6) Vertical turbine pumps with configurations up to 100 hp per pump and a pressure maintenance pump
- Filtration options include suction scan filters and automatic backwashing screen filters

with Stainless Steel Filter



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Wet Well Intake with Stainless Steel Screens



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380V, 50Hz Five 75HP Vertical Turbine Pump Station Operating in South East Asia



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