

## **Pump Tech Spec**

# Vertical Turbine – 2 Pump – Compact Deck

High Flow Pump Station – 2 Pumps on a single deck 40 to 75 HP per pump; Up to 140 psi (9.7 bar); Up to 1600 gpm (101 LPS, 363 m<sup>3</sup>/h)

Rain Bird's 2 pump, vertical turbine pump station on a polyester powder-coated deck is designed to be installed over wet wells or vaults. Vertical turbines offer the highest hydraulic efficiency available, leading to the lowest cost of ownership over the life of the system. With a PM pump for pressure maintenance and optional IP (Intermediate Pump), this compact station is well-suited for large Turf and Golf Course irrigation applications with flows up to 1600 gpm (101 LPS, 363 m<sup>3</sup>/h).

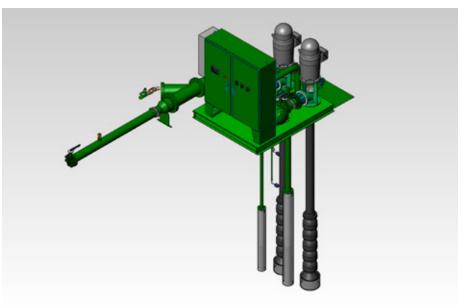
## **At-A-Glance Description**

- Energy efficient Vertical turbine pumps with Variable Frequency Drive (VFD) maintain constant pressure at varying flow demand.
- High Flow capacity up to 1600 gpm at 110 psi (101 LPS, 363 m<sup>3</sup>/h at 7.6 bar)
- Sophisticated control package with enhanced PLC software, large color touch panel display and a choice of communication options for remote access, central control software integration-ready.
- Choice of filtration options and accessories.

#### **Standard Features**

#### Main Pumps

- Marine Bronze Impellers
- Stainless Steel Vertical Line Shaft
- Porcelain Lined Bowls
- 60K PSI Ductile Iron Head
- Pressure Maintenance
  - 5 HP PM pump Submersible
- Motors
  - High Efficiency Motors, Weather Protected Type WP1, Class F insulation
     Motor heaters
- Mechanical Features
  - Discharge Butterfly Isolation Valve
  - Silent Check Valve
  - Pressure Relief Valve
  - Air Relief Valve per head
  - Pump Set Length longer than 15ft in-
  - cludes well service valves and larger deck - Hose bib
- Pressure / Flow
  - Stainless Steel Pressure Transducer
  - Paddle Wheel Flow Meter



#### Enclosures / External Connections

- Polyester Powder-Coated Steel Deck and Piping
- Integral Wet Well Service Hatch
- NEMA 4 Electrical Enclosure
- Heat Exchanger on Electrical Enclosure

#### Pump Control

- VFD with pump rotation
- Illuminated, 3-position HOA switches

- Resettable Circuit Breakers
- Display
  - 8.4 inch, Color Touch Panel Display
  - Ethernet port for VNC Connectivity
- PLC (Programmable Logic Control)
  - Ethernet-ready PLC Control Package
- Lake Level Safety
   Low Level Shut Off (Float)
   (continued on back)

Vertical Turbine – 2 Pump – Small Deck				
Motor Size	40 HP	50 HP	60 HP	75 HP
Power Requirement (other power configurations available upon request)	480/60/3 V/HZ/PH			
	415/50/3 V/HZ/PH			
	380/50/3 V/HZ/PH			
	575/60/3 V/HZ/PH			
Discharge Flow at 110 psi <sup>(1)</sup>	800 GPM 50.5 LPS, 182 m <sup>3</sup> /hr	1000 GPM 63.1 LPS, 227 m <sup>3</sup> /hr	1200 GPM 75.6 LPS, 273 m <sup>3</sup> /h	1600 GPM 101 LPS, 363 m <sup>3</sup> /hr
Discharge Pipe	6"			
PM Pump	5 HP Submersible PM Pump - Standard			
<b>Optional IP Pump</b>	10 – 25 HP - Optional			
Deck Dimensions	6' 0" x 9' 0" (1.83 meters x 2.74 meters)			
Min Slab Dimension	12'x 15' minimum (3.6 meters x 4.6 meters minimum)			
Wet Well Diameter	60" Diameter minimum (1.5 meters minimum)			
Pump Set Length	Up to 40 ft. (12.2 meters)			
Cabinet Height (from slab)	6' 10" (207 cm)			

(1) Refer to pump performance curves, provided upon request from pumps@rainbird.com



## **Optional Features**

#### Main Pumps

- SS or NiAl Bronze Impellers
- 316 SS, NiAl Bronze, or Coal Tar EpoxyCovered Bowls
- Motors
  - Premium Efficiency Motors
- Mechanical Feature
- - Well Service Valve (requires larger deck)
- Pressure / Flow
  - Magnetic Flow Meter

## Pump Control

- VPM (VFD Per Motor)

#### Intermediate Pump

- 10-25 HP Intermediate Pump -Submersible

- Panel Only
   Electrical Panel only (for retrofits)
- Communications
  - Ethernet Radio Modem Kit
  - Hardwire Ethernet Extender kit

#### **Accessories**

### • Filters

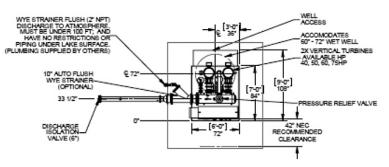
- 10" Wye Strainer Filter (1/8" openings)

**Details** 

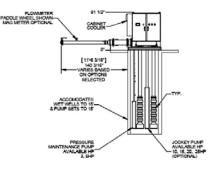
- Intake Filters
  - SS Steel Box Screen
  - SS Self Cleaning Intake Screen

## Enclosures / External Connections

- Air Conditioning on Electrical Cabinet
  5 KW room heater
- Power Zone (120 VAC or 220/240 VAC)Custom Zee Pipe
- Lake Level Control
  - Lake Level Controls (Float or Analog)



**Profile View (with Wye Strainer Option)** 



Side View(with Wye Strainer)

#### **Rain Bird Corporation - Pumps Division**

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