



# World-Class Soccer Stadiums, Brazil

## World-Class Brazilian Soccer Stadiums Rely on Rain Bird to Provide Design, Installation & Project Management of their Irrigation Systems

Eleven regional soccer stadiums hosting the largest international soccer tournaments trust Rain Bird Brazil to provide best-in-class system control and precise, uniform irrigation for complex conditions.

### THE CHALLENGE:

The stadiums' Sports Field Managers are responsible for maintaining precise pitch conditions and ensuring player safety while prioritizing sustainable design. Tall stadium walls, seating, and overhangs, however, create unique wind conditions, weather variables, and shadows that adversely impact the growth of grass and soil moisture content.



### THE SOLUTION:

The stadiums enlisted Rain Bird's agricultural engineers to develop comprehensive irrigation solutions for each location. Rain Bird's Central Control system, ESP-LXD Controller, 8005 Rotors, rain sensors, and soil moisture sensors will give Field Managers complete control of the playing environment.

### Related Products:

- [IQ™ Central Control](#)
- [ESP-LXD Controller](#)
- [8005 Stainless Steel Rotor](#)
- [WR2 Wireless Rain Sensor](#)
- [Flow Sensors](#)
- [Smart Approved WaterMark Soil Moisture Sensor\\*](#)

\*Non-Rain Bird Product

### KEY OBJECTIVES

- ✓ **Player Safety**
- ✓ **Sustainability**
- ✓ **Optimal Pitch Conditions**
- ✓ **Intelligent Automation**



## Site Report: **World-Class Soccer Stadiums, Brazil**

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“ I have been working with Rain Bird products in construction and maintenance for sports turf, especially for soccer pitches, for more than 17 years in Brazil. We have several success stories in more than 100 projects. In my opinion, Rain Bird products provided excellent water application uniformity.

FABIO CAMARA

TECHNICAL DIRECTOR, WORLD SPORTS COMPANY

### RESULTS:

## Advanced Irrigation Solutions Deliver Perfect Pitch Conditions

Rain Bird successfully delivered eleven comprehensive irrigation solutions tailored to each soccer stadium. Although construction of the stadiums was fast paced, Rain Bird's extensive irrigation experience, wide breadth of services, large network of distributors, and cutting edge products allowed the team to deliver on-time and above expectations. Everyone was able to benefit from reduced labor, water usage, and overall operating expenses.



### APPROACH:

## Expert Planning and Precise Execution for Optimal Playing Conditions

### ENABLE REMOTE MANAGEMENT

- Give field managers the ability to control the system from a central computer as well as other remote devices such as a smartphone.
- Significantly increase the number of stations each stadium can control with use of the ESP-LXD controller, capable of handling up to 200 stations

### FACILITATE SCHEDULING & AUTOMATION

- Fully automate system flow management with IQ Central Control Software
- Allow for scheduling based on evapotranspiration (ET) rates and soil moisture content levels with IQ, ESP-LXD and soil moisture sensors
- Customize irrigation programs to run specific rotors in combination with the fertilizer injection system and game day schedules.

### PRIORITIZE PRECISION

- Conduct shadow movement studies to determine the impact of sunlight on the field throughout the year.
- Utilize 8005 Series Rotor with Rain Curtain nozzle technology for superior coverage and gentle close-in watering around the base of the rotor to cultivate uniform playing conditions.
- Provide extensive training to ensure proper understanding of the system

### CONSERVE WATER

- Optimize irrigation schedules based on hydraulics, using flow rates to ensure water saving performance and best-case scenario protocols.
- Install advanced sensing software to provide instant alerts showing low or high flow situations

## Stadiums:

- Arena da Amazônia
- Arena de São Paulo
- Estadio das Dunas
- Estadio do Maracanã
- Arena Fonte Nova
- Estadio Mineirão
- Estadio Nacional Mané Garrincha
- Arena Pantanal
- Arena da Baixada
- Arena Pernambuco
- Arena Castelão