

## System Specification

Client:		Date:	22 January 2020
Project:	Cricket Square 30m x 30m	Quote:	
Description	Rainbird 4 pop-up sprinkler system with pump and tank	Rev:	0

### Description of system

4 Rainbird pop-up sprinklers, one halfway down each side, will water the 30m x 30m cricket square automatically. A rain sensor is included to conserve water. The system also has the built-in option of watering the outfield.

The system includes a water storage tank and automatic pump set to provide the pressurised water supply to the system.

### Water Storage Tank

During periods of peak demand, the system will use approximately 2.7m<sup>3</sup>/day. To enable the tank to fill over a 24 hour period, a mains water supply delivering not less than 600litres/hour will be required.

The system includes a 2,500litre tank with Type AB air gap to prevent backflow into the public mains.

The tank is made from maintenance free black HDPE. The tank is a WRAS approved product and supplied with a 10year guarantee.

The tank is 1.4m diameter x 1.8m high and needs to be sited on a smooth, level base as per manufacturers specification, provided by the client.

The tank will be fitted with a ¾" ball float valve inlet and 1.5" outlet with isolation valve. 1" suction hose will connect the tank to the pump.

### Pump with Genyo Auto-Start

The pressurised supply to the system is provided by a compact Lowara BGM Series pump with stainless steel body and motor shaft for long life. The BGM range is designed for heavy-duty industrial applications, are quiet running and supplied with highly efficient motors to keep energy consumption to a minimum.

A Lowara Genyo controller will start the pump automatically as soon as the sprinkler is operated. The controller includes a built-in non-return valve and dry running protection. An electrical isolator switch will be provided for the pump. The pump will need to be wired to this and mains power provided to the isolator switch.

The pump has a 1.1kW single phase motor with a 6.47A full load current.

The pump must be protected from the elements, either in an existing building or a ventilated enclosure provided by the client. The pump must be protected from frost damage.

Due to the nature of the equipment, some drainage of water onto the floor is to be expected, during routine maintenance or should a fault develop. It is the responsibility of the client to check the suitability of the proposed equipment and its proposed location before installation.

### Supply Pipework

300m x 32mm of black MDPE pipe is included to run from the pump to the green and form a ring main around the square.

2 x 32mm pipes will run from the pump location to the edge of the cricket square. A single 32mm pipe will run around the perimeter of the square. The 2no supply pipes from the pump will connect onto the square pipework via compression elbow fitting.

2 x 6core multicore signal cables will run with the supply pipes to provide power to each sprinkler. MDPE pipe has excellent resistance to frost and stone damage. All pipe fittings are WRC approved compression type.

### **Rainbird 551 Eagle Sprinklers**

Rainbird 551 pop-up sprinklers are included. These are professional quality units designed specifically for this type of application. The sprinklers will operate at 180deg arc but have a unique quick arc reset, enabling them to run at 360deg when required. This feature can be used to provide additional watering outside of the square. The sprinkler is connected to the supply pipe via swing joint enabling the top to be set accurately below the grass mowing level. Electrical control valves are built-in and these are connected to the controller via multi-core cable. For added durability the casing is made of glass filled polypropylene.

### **Control System**

A Hunter X-core irrigation control panel will operate the system automatically or manually as required. This is a robust wall mounted unit with lockable cover. The controller is easily programmed via central dial, push button adjustment and clear digital display. Each sprinkler is wired to the controller and will be operated independently.

A wall mounted rain sensor is included, which should be mounted in a suitable location typical of the watering area. The rain sensor is supplied with 7.5m of cable for connection directly to the controller.

### **Third Party Requirements**

The following will be required in addition:

- Power supplies and consumables for:
  1. Pressurisation pump - to and from isolator (see pump electrical specification).
  2. Irrigation controller – 13amp plug socket adjacent to location.
- Water supply and consumables for:
  1. Water storage tank – ¾" BSPM inlet.
- Suitable base for water storage tank (see manufacturer instructions).
- Suitable enclosure for protection of pump and control equipment.
- Ground works:
  1. Trenching/reinstatement works for pipework, sprinklers.

### **Installation**

The system is designed to be installed by someone with competent DIY skills, full instructions will be provided. An electrician will be required to install power to the pump and control panel location.

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