

## System Specification

Client:		Date:	11 January 2021
Project:	Bowling Green 40m x 40m and 40m x 30m	Quote:	
Description	4 pop-up sprinkler system with pump and tank		

### Description of system

**40m x 40m:** 4 Rainbird pop-up sprinklers, one halfway down each side of the green, will water the 40m x 40m bowling green automatically.

**40m x 30m:** 2 Rainbird pop-up sprinklers and 2 Hunter pop-up sprinklers, one halfway down each side of the green, will water the 40m x 30m bowling green automatically.

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

### Water Tank

During periods of peak demand, the system will use approximately 4.8m<sup>3</sup>/day (3.6m<sup>3</sup>/day on 40m x 30m). To enable the tank to fill over a 24 hour period, a mains water supply delivering not less than 600 litres/hour will be required.

The system includes a 5,000 litre 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 2 year guarantee.

The tank is 1.9m diameter x 2.19m high and needs to be sited on a smooth, level, reinforced concrete base, at least 2.5m in diameter x 150mm thick, provided by the client – see manufacturer's instructions for full details.

The tank will be fitted with a ¾" ball float valve inlet and 2" outlet with isolation valve. 1" suction hose will connect the tank to the pump.

The tank will be delivered direct from the manufacturer. Access for a large lorry will be required. Off-loading of the tank is the responsibility of the client. The tank has 4 no. moulded lifting lugs equally spaced around the top.

### Pump with Genyo Auto-Start

The pressurised supply to the system is provided by a compact Lowara e-HM..P Series pump with stainless steel body and motor shaft for long life. The e-HM 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 1.5kW single phase motor with an 8.42A 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.

### Distribution Pipework

200m x 32mm black MDPE pipe is included to run from the pump to the green and form a ring main around the green. The pipe would normally be laid in the roll off gutter. The supply pipe to the ring main must be no more

than 10m. MDPE pipe has excellent resistance to frost and stone damage. All pipe fittings are WRC approved compression fittings.

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 950 Eagle Sprinklers**

Rainbird 950 pop-up sprinklers are included. These are professional quality units designed specifically for this type of application. The sprinklers will operate independently and at a 180deg arc. The sprinkler is connected to the supply pipe via swing joint enabling the top to be set accurately. 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.

### **Hunter I-40 Sprinklers**

On the 40m x 30m package two Rainbird 950 Eagle sprinkler and two Hunter I-40 sprinklers are provided. The Hunter I-40 is a tough commercial grade rotor designed for sports and commercial applications and delivers water accurately and efficiently at distances up to 23m. The sprinkler is connected to the supply pipe via swing joint enabling the top to be set accurately. Electrical control valves are separate to the sprinkler, these are connected to the controller via multi-core cable and have a separate valve box.

### **Control System**

A Hunter X2 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. As an option a wi-fi module can be added to allow remote connection to the controller.

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 bowling green system is designed to be installed by someone with competent DIY skills. An electrician will be required to install power to the pump and control panel location. A landscaper is recommended to remove and refill the pipe trenches.

E&OE

13/12/19 Rev: 1

22/01/20 Rev: 2 – Pump spec altered. Tank guarantee altered.

11/01/21 Rev: 3 – 40m x 30m option added.