

System Specification

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|-------------|--------------------------------|--------|-----------------|
| Client: | | Date: | 28 January 2021 |
| Project: | Ménage 20m x 40m and 20m x 60m | Quote: | |
| Description | Perimeter sprinkler system | Rev: | 1 |

Description of system -20m x 40m

8 Hunter PGP Ultra Shrub Head sprinklers, positioned along the 40m sides and set to cover quarter-circle and half-circle arcs, will evenly water the 20m x 40m riding area. A 4-station automatic controller will operate the sprinklers in pairs.

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

Description of system – 20m x 60m

12 Hunter PGP Ultra Shrub Head sprinklers, positioned along the 60m sides and set to cover quarter-circle and half-circle arcs, will evenly water the 20m x 60m riding area. An 8-station automatic controller will operate the sprinklers in pairs.

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

Water Storage Tank

The system includes a 2,500 litre tank with Type AB air gap to prevent backflow into the public mains and is supplied with a ¾" BSPM float valve inlet. The tank is solidly constructed in maintenance free black HDPE using rotational moulding technology and is supplied with a 2 year guarantee.

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

The tank will be delivered on a large flatbed lorry. Lorry access and unloading facilities are to be provided by the client.

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 a 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 6.84A 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

20m x 40m 32mm black MDPE pipe will run from the pump to the control valves, then on to the sprinklers. The sprinklers will be mounted on 25mm riser pipes clipped to the perimeter fence or boards.

20m x 60m 50mm black MDPE pipe will run from the pump to the control valves and 32mm pipe from the valves to the sprinklers. The sprinklers will be mounted on 25mm riser pipes clipped to the perimeter fence or boards.

MDPE pipe has excellent resistance to damage and all pipe fittings are WRC approved compression type.

Two groups of Hunter 24V solenoid valves will be fitted at the menage. Each valve will operate two sprinklers and will be supplied with an inspection chamber with green plastic, lift-out cover. Multicore signal cables will run alongside the pipework to connect the valves back to the irrigation controller.

Hunter PGP Ultra Sprinklers

The PGP Ultra is a high quality, robust sprinkler with reliable water-lubricated gear drive and tough rubber cover.

Control System

A Hunter X2 controller will operate the system automatically or manually as required. The X2 is a robust, wall-mounted unit with lockable cover. The controller is easily programmed via central dial, push button adjustment and clear digital display. The controller also has the option to add a WI-FI module, to allow remote control of the system via a smartphone App.

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.

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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