

## System Specification

Client:		Date:	24 September 2019
Project:	One or Two Pitches 70m x 110m	Quote:	
Description	Speedy Rain 405 Hosereel Irrigator System	Rev:	1

### Description of system

A Speedy Rain 405 hosereel irrigator will allow an application of 27mm of water to two pitches within an 8-day period.

The machine can cover an area up to 41m x 130m at each setting. Running at a speed of 10m/h, the machine will cover 110m in 11 hours and apply around 13.8mm of water. Each pitch will be covered with two passes of the machine.

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

### Water Tank

During periods of peak demand, the system will use approximately 53m<sup>3</sup>/day. To enable the tank to fill over a 24 hour period, a mains water supply delivering not less than 2.2m<sup>3</sup>/hour at a pressure of 4.0 bar will be required.

The system includes a 30m<sup>3</sup> 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 10 year guarantee.

The tank is 3.45m diameter x 3.65m high and needs to be sited on a smooth, level, reinforced concrete base, at least 4.1m in diameter x 150mm thick, provided by the client.

The tank will be fitted with a 3/4" ball float valve inlet and 2" outlet with isolation valve. 2" 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..S Series pump with stainless steel body, motor shaft and impellers 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 hose point is opened. The controller includes a built-in non-return valve and dry running protection.

The pump has a 2.2kW single phase motor with a 12.5A 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

The system is designed to operate with a maximum supply pipe run of 150m. 50mm black MDPE pipe will run from the pump and across the ends of the pitches. Ideally, the pipe should branch to each pitch but satisfactory results will also be achieved with a straight pipe run.

MDPE pipe has excellent resistance to frost and stone damage. All pipe fittings are WRC approved compression fittings, by Plassim.

### **Hose Points**

Four hose points, for connection to the hosereel irrigator, will be installed at the edge of the pitches. Each will comprise a 1" uPVC lever valve with 'Geka' hose coupling, to be installed in a Carson valve box with 230mm diameter, green plastic cover.

### **Speedy Rain 405 Hosereel Irrigator**

The machine offers a simple and cost effective solution to watering sports fields. An efficient piston drive ensures minimal pressure loss and the sprinkler is sled mounted, enabling reliable operation on uneven ground.

To operate, the unit is wheeled into position, connected to the water supply and the sprinkler sled pulled out. When operating, the drive mechanism diverts some of the water to slowly rewind the hose and retrieve the sprinkler. When the trolley reaches the reel it automatically switches off the supply and the sprinkler stops.

Approximate irrigated area:	5200m <sup>2</sup>
Sprinkler nozzle choices:	8mm, 10mm
Hose diameter/length:	40mm/130m
Hose material:	PET
Output range:	2.9 - 7.4 m <sup>3</sup> /h
Operating pressure:	4.0 – 8.0 bar
Wetted width:	31 - 44 m
Rewind speed:	10 – 40 m/h
Application (based on 10m/h rewind):	11.2 – 19.9 mm/h
Weight:	188kg
Approximate dimensions:	1400mm (L) x 1030mm (W) x 1100mm (H)

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Rev:1 24/09/19

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