

# Pop up Watering Systems

by

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The ultimate in golf course watering is obviously a fully automatic pop-up sprinkler system, where a watering programme is set up upon a controller, and watering of the greens and/or tees is carried out automatically throughout the night, but unless the system has been properly designed, and the right output sprinklers have been installed around the greens to ensure adequate coverage, much of the advantages of the system are lost.

In designing pop-up systems, Cameron's always ensure that adequate overlap is obtained from the sprinklers to ensure that the centre of the green is always sufficiently watered. This may seem an obvious comment to make, but nevertheless systems are installed, particularly if the golf club tries to install one 'on the cheap' where this point has not been fully appreciated, the result of which is brown patches appearing in the centre of the green during prolonged dry weather.

Wind will also affect the distribution from the sprinklers, and therefore it is an advantage to have a fairly heavy precipitation from the sprinkler which can help to overcome the force of the wind. The type of sprinkler installed by this company meets all these requirements, and in addition is extremely robust and virtually vandal proof.

The body is made of galvanised steel, as well as the lid, which in addition has a thick rubber top. The top rises under water pressure, against a very strong return spring so that when the water is turned off the spring retracts the sprinkler making it very difficult to prise open when not under pressure.

Quite often when clubs have an automatic system installed, they overlook the fact that they are going to need water around the course for purposes other than automatic sprinkling, therefore when an automatic system is installed it is essential to include some hand watering points on the system to allow water to be drawn off for any other purpose. Cameron designed systems always include a hand watering point at the rear of each green, in addition to the electric control valve.

## **Automatic control**

Automatic operation of a system is achieved by having a solenoid valve at each green with wires leading back to a control panel, situated at some convenient position on the course, usually in the pumphouse. A watering programme is then set up on the controller, and the solenoid valves open in sequence according to the length of time set up on the control panel.

Cameron control panels can be set to water each green for a different period of time, if required, from a minimum of 3 minutes, to a maximum of 30 minutes. It is also possible to have an alternative time setting, if this does not suit the clubs requirements. In addition to opening and closing the solenoid valves, the control panel automatically starts the pump at the commencement of the irrigation cycle, and then automatically turns the pump off at the end of the cycle.

If a fairly heavy precipitation sprinkler has been installed around the greens, it is also possible to remove dew from the greens in the morning, by giving say 30 seconds sprinkling per green. Provision for this to be done entirely automatically, can also be made as an optional extra on all Cameron control panels.

## **Portable sprinklers**

If a club cannot afford to install an automatic watering system, and still has to rely on portable sprinkling of greens and tees, it is well to bear in mind that there are now available larger output sprinklers, which will require less moves to complete the watering programme. The LKA30/2F sprinkler is one of these, and can water an average size golf green from one central position, and yet requires no more than 400g.p.h. flow rate. This sprinkler is now used on many golf courses, and is a big improvement on the smaller output garden type sprinkler.

It is also possible to have a semi-automatic watering system utilising these sprinklers, at a fraction of the cost of a fully automatic pop-up system.

The course has to have electric control cable laid around it and a control panel and solenoid valve installed. After this however, all that is necessary is for 18 such sprinklers to be placed in the centre of each green last thing at night, and the control panel set to commence watering operations. Each sprinkler will then come on automatically in turn and water the greens. In the morning the ground staff remove the sprinklers from the green and store them at some convenient point,

ready to put out the next night. A system like this can be installed for around £1500, as against an average cost of around £8000 for a fully automatic pop-up system.

### **Fairways watering**

Watering of selected areas of the fairways is now becoming more popular in this country and although on overseas courses pop-up sprinklers are installed to do this job, in this country it is more usual to use an above ground sprinkler.

Again a large output sprinkler is very useful for this purpose, and the most suitable one from the Cameron range is the ZK30WS. This has a cast distance of 75ft. and requires a flow rate of approximately 1000 g.p.h.

# **Water when you want it**

*by*

## **Watermation Limited of Godalming**

Watermation was founded 2 years ago to provide a complete design and installation service for automatic 'pop-up' water systems for all turf areas with the main concentration being the designs for golf green watering. This Company deals with all matters concerning the project from the surveying of the Golf Course, negotiations with electricity and water boards right through to the complete installation. Their technical advice is freely available to all with watering problems. It is very important if your Club is considering improvements to its water system or even the installation of water to the greens for the first time, that such a firm is consulted even if it is only intended to install a manual watering system at this stage. Eventually most clubs will have automatic systems and therefore the pipework network should be installed to meet this future requirement.

Watermation systems for greens watering utilise commercial type 'Pop-up' sprinklers of very robust construction being manufactured from bronze and cast-iron. These sprinklers are mounted flush in the turf around the periphery of the green and spray water on to the green at night time under automatic control from a centrally mounted programmer. This programmer can be erected in any convenient position for the greenkeeper's use and will enable him to set up a watering cycle to completely suit the characteristics of the golf course, it having independent timing from 0-60 minutes for each green. In addition to the automatic control which is operated by a time clock incorporating both a time and calendar wheel, there is a patented rainstat which automatically turns off the sprinkler system when it rains and then permits the controller to commence normal operation when the turf needs water without any resetting.

## **SPORTS TURF RESEARCH INSTITUTE**

The 21st A.G.M. of The Sports Turf Research Institute was held at Bingley on Monday, 24th April under the Chairmanship of Mr. Alan Sowden.

In its reference to research during the past year, the annual report (which was adopted) points out that the Institute is the acknowledged merit testing centre for amenity grass varieties in the U.K., and that currently over 200 varieties are in trials. The flow of new material is all the while increasing. In spite of this, however, and the fact that amenity grasses account for 33% of the value of grass seed used in the U.K., there is still no official recognition of, or support for, this work. Equally, there is increasing awareness on all sides of the need to develop mixtures for hard wear under sports conditions and for low maintenance in general amenity areas. The Institute has plans for extending its work on these aspects and developing extension trials on other areas, but lack of staff and financial resources prevent much of this widely needed research from being undertaken.

The Director also reported that, at the suggestion of seedsmen representing some of the main turfgrass breeders, the Institute is forming a Turfgrass Trials Committee, with strong represen-