

Irrigation Maintenance

by Glenn Bereiter, Irrigation Specialist
Bob O'Link Golf Club

Like most projects we perform on the golf course, the way we approach and handle maintenance procedures differs from course to course. I do not claim to be an expert in the field of irrigation, but some of the ideas we use at Bob O'Link Golf Club could be applicable to your situation.

Although the pumping station may be turned off for the winter months, there are several things that can be done. With an automatic irrigation system we exercise the control clocks about once a week to keep the solenoids fresh. An inventory of parts can be made and the stock filled accordingly. Any pieces that are no longer of use can be discarded to reduce the confusion later in the year.

Prior to the beginning of the irrigation season there are several activities we try to accomplish. In the early days of spring when the system is still off, but when you can work outdoors, I like to do any work that may require opening up the underground pipe. For instance, any quick coupling valves or automatic sprinklers that need to be raised or lowered should be done at this time. A sticky valve from the previous season may be replaced now without the mess of pressurized water.

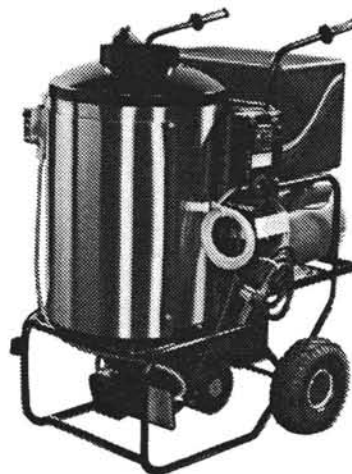
In the pumphouse, the oil can be changed in the pumps, the pumps greased, and new packing placed around the shaft of the pumps. The "Y" strainer and any screens should be removed and cleaned. Keep the pumphouse in a clean, neat, and orderly manner. Every so often, we give the place a fresh coat of paint. Have plenty of light as it makes it much easier to spend the necessary time performing the daily tasks, if you are in a clean and well lit environment. Out on the golf course the control boxes are cleaned out and inspected. Wires and fuses are checked. Rat poison and insect pest strips are replaced.

When the system is being energized turn on several sprinklers at the furthest points from the pumphouse. This is done to remove most of the air from the system reducing air and water hammer within the system that may blow lines apart. Slowly opening the shut-off valves also helps reduce water hammer on the system. We crack open the valves and check the sprinklers to see if any water has reached the furthest points. Once water is being discharged at these areas the valves are opened gradually as sprinklers are turned off. Once the proper system pressure is approaching normal check the irrigation system for leaks. Keep checking for several days as some leaks are slow to appear.

When the system is up and running check and set all of the clocks. Replace burned out bulbs in the pumphouse control panel. Before a night watering, run every automatic sprinkler on the course and check for rotation. Each head should be able to pop up, rotate, and turn off and go down.

Moisture requirements and system repairs are our major concerns. We use a mini-weather station of two thermometers, one for air temperature, and the other for soil temperature, a rain gauge, and an evapotranspiration meter. The evapotranspiration meter consists of a row of sponges, placed vertically in a plastic tub, with a ruler on the inside wall. Every day at the same time we check the water loss rate and fill it to the same mark every day. The evapotranspiration rate is just a simple way to keep track of moisture loss. This information should be recorded in an irrigation diary along with any other pertinent information of the day. (cont'd. page 14)

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(Irrigation cont'd.)

Possibly the most important aspect of the irrigation specialist position is that of monitoring the day-to-day moisture requirements of the turf. My personal system is to walk on every green and tee, while driving on every fairway, making sure to notice moisture level, wilting and rotation of automatic sprinklers. The clubhouse area is checked first so that any water that need be added may be done so before any member activity takes place.

As I make my routine rounds I check the clocks in all five zone boxes to see that they have held the proper time throughout the night. Upon completion of this initial check any sprinklers that did not work properly are replaced and checked. Then, if any additional water is needed, automatic syringing or hand watering chores are performed.

Other responsibilities of this position that are done throughout the growing season, is edging around the quick coupling valves, automatic sprinklers, drains, valves, and yardage markers. This should be done every 3 to 4 weeks, or as needed, to keep these looking neat and trimmed.

In conclusion, the irrigation system is the most expensive tool we use on the golf course. During the months of July and August, it may be the most often used piece of equipment we own. A proper maintenance program is a must, to insure optimum performance throughout the year.



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