Mark Hastry (seated on the John Deere 3245C semi-rough mower) and the rest of The Heworth Golf Club's greenkeeping team.

## QUALITY CONTROL AT HEWORTH GOLF CLUB

What needs to happen to ensure a new irrigation system does exactly what you want it to. Steve Mitchell reports on a club which has gone through the process and what was involved.

It's probably the last thing that a golf club finance committee would consider, especially in our climate, but a fully functioning irrigation system is the most important piece of equipment on the golf course – because without water, nothing grows.

So when Head Greenkeeper Mark Hastry was having problems with the irrigation system at Heworth Golf Club in Gateshead, Tyne & Wear, he was keen to get them sorted out as quickly as possible. The solution came in the shape of a new John Deere Aurora irrigation controller, the first commercial unit installed on a golf course in the UK.

The installation was carried out by Full Circle Irrigation Services, with equipment supplied by local John Deere dealer, Greenlay, of Cramlington, Northumberland.

Full Circle is in its second year of business, with directors, Robert George and John Grafton, and three full-time employees operating out of premises in Knaresborough, North Yorkshire. Initially the business developed a customer base in the north-east of England, mainly through word of mouth and recommendations from greenkeepers like Mark, and the company has since been subcontracted to work in Europe, including France, Ireland and Denmark.

Robert set up the business after working for another irrigation company in the north-west of England for nine years.

"Basically I wanted to work for myself, and I saw a gap in the market. I think there's always room in any industry for a specialist, personal and independent service at a reasonable price. I wanted to be service based, working face to face with customers and building relationships based on good workmanship and trust," said Robert.

The relationship with John Deere began when Full Circle did some initial work at Heworth, when Mark needed advice on the best way to get his irrigation system working properly. This coincided with John Deere announcing its entry into the irrigation market, and director Geoff Lowes, of Greenlay, was looking for specialist help to get John Deere's new product range known and accepted in the area.

"Full Circle did a few jobs for me and got my original control box ticking over, but it really needed replacing," said Mark.

"The controller wasn't working as efficiently as it could, we had a number of electrical problems, and the system basically wouldn't allow us to do what we wanted it to. For example, some stations weren't switching on at night, so one of us would have to come down and turn the sprinklers on manually."

After Mark recommended their work, Geoff arranged for Full Circle to have a demonstration of the new Aurora controller.

"When John Deere asked the dealers to start promoting irrigation equipment, I felt straight away we needed to find someone who could do the installations, as we just didn't have the expertise within the dealership," he said.

"Full Circle are a good fit for us and for the product range – we sell the parts and systems, and they have the specialist installation knowledge and experience. With irrigation systems, as with any other key piece of equipment, you have to know what you're doing, so we had to find the right people to provide the right service."

The original irrigation system at Heworth was installed in 1994, in two loops of nine, and currently covers all the tees and greens and about half the fairways on this flat, wooded course. The basic wall-mounted Aurora irrigation controller replaced the existing box, and new decoders and connectors had to be wired into each valve box to receive the Aurora's command signals. The whole installation took two and a half days to complete, including full insulation and resistance testing.

"Before we had the first demonstration, we hadn't seen the controller in action before," said Robert George.

"Obviously we wouldn't install a product we didn't know, or have confidence in but because the Aurora controller operates three-wire decoder systems, we were able to connect it to the existing system at Heworth and operate it. Our conclusion was, and Mark agreed, that it was a lot easier to programme and operate than the previous controller. Once Mark was happy with the system and the price, we went ahead and installed it.

"Now we carry an Aurora unit with us in our service vehicles, so we can wire it in anywhere and give an on-site demonstration of its main features and benefits.. Mark has the basic set-up, with all the programming done at the box, but he'll be able to grow the system in future as required – you can connect it to the internet and control the irrigation system from anywhere using a laptop, PDA, mobile phone... all the options are there."

The new system now controls 98 stations across the golf course, and offers Mark more programmes, multiple station starts and more control of his overnight watering schedule.

"I can now control our water management much better and more efficiently," said Mark.

"We're on a clay soil here, and with clay there are no in-betweens – in winter it saturates, and in summer it bakes. If you leave it too long between watering, the ground will crack, so you need to get the balance right. This is why it's vital to have an efficient irrigation system.

"The programme we use depends on the weather, naturally, but generally we like to set it off twice a night, starting at around 11.30pm. Because of the clay, we'll generally water for four minutes, stop for a while to let the water soak down, and then go again for another three and a half minutes or so. The greens are set up first, then we switch to the tees, then back to the greens, before watering the fairways. The fairway sprinklers are usually still going when we come to work in the morning.

"Now we've got the controller sorted out, the next job will be to overhaul the whole system. We now have a full service contract with Full Circle,



(Left to right): Director Robert George of Full Circle Irrigation Services, The Heworth Golf Club's Head Greenkeeper Mark Hastry, Director Geoff Lowes of Greenlay and Director John Grafton of Full Circle.



and this gives us a regular report on what needs doing next, for example where we have leaks and corroded gate valves, or where the heads are not turning properly. In an ideal world we would have all the work done at the same time, but we couldn't manage the cost of this on our annual budget, so this will be an ongoing project, probably over the next three years."

Robert recommends that golf clubs should look at regular updates to their irrigation system rather than try to replace everything at once, which is a very expensive option.

"With new products coming on the market, clubs shouldn't have to rely on costly old components and systems," he said.

"New irrigation technology and products can easily be introduced to existing installations, particularly on some of the older systems out there, and we always aim to use the best equipment for individual situations as no two golf courses are the same. We would always recommend too that people use specialist installers – you can't just throw odd parts at a system and expect them to work properly without professional help and advice.

"We offer a service contract so that clubs can have their system regularly checked and serviced. This means we look over the whole system, test the pump, every valve and sprinkler, and the general condition of all components. We then produce a detailed report with recommendations and full costings, and if anything needs replacing or repairing we work with the club to achieve this.



The Aurora controller is future-proof – the base unit can be fitted at any time with input sensors from ground moisture meters to evapotranspiration meters to a full weather system, for even more precise water management without the need for a PC.

Our standard contracts include decommissioning for the winter and a guaranteed response time from the customer's call."

As a greenkeeper working at the sharp end, Mark agrees wholeheartedly with this approach.

"Most greenkeepers have a budget to work to, and these reports definitely help me to manage my budget better. The golf club committee has to decide on any large investment, so the more information I can give them, the better informed their decisions will be.

"Basically, the Aurora system was fitted because I left it to Full Circle. They're the specialists, and if they'd said the John Deere contoller wasn't right for me, I wouldn't have had it fitted. Their professionalism and workmanship have been second to none, so you can see why they're doing so well in this area. Even John Deere's own irrigation specialists were impressed when they inspected the installation."

## **CONTACT DETAILS**

Autoflow Systems Ltd - Tel:01603 759701 Topturf - Tel:0870 8720081 Par 4 Irrigation Ltd - Tel:01765 602175 Oakdale T&G Irrigation - Tel:01427 874200 Toro Irrigation - Tel:01480 226858 North Staffs Irrigation - Tel:01785 812706 Irritech Limited - Tel:01823 690216

For further information see page 69