## Destination Dubai – where simply growing grass for golf was, until recently, a major problem...



This aerial shot shows how the course is turning the desert green. The 18th (left) and 9th fairways pass the largest of four lakes on their way to a giant double green.

CREATING a golf course out of burning desert is nothing new, but an 18-hole project moving towards completion on the shores of the Arabian Gulf is already raising quite a few eyebrows.

## By Tony Lewis

When completed towards the end of the year, the Emirates Golf Club will boast the only cham-

pionship course between Rome and Singapore. Soon, it could be responsible for an extension of the European professional circuit into the Middle East. A regular tournament is the priority.

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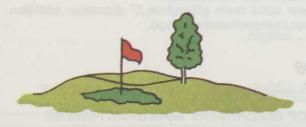
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Now that construction is complete, keeping the course in trim is the main task.

The man intent on providing golf with a major breakthrough in the region is H.H. Sheikh Mohammed bin Rashid Al Maktoum, the United Arab Emirates' minister of defence.

Sheikh Mohammed, known for his love of horseracing, decided to build a \$1.25m grass golf course on the fringe of Dubai to increase the possibilities for sport in the Emirates, already home to the richest motor rally and power boat race in the world and now building a £9m international cricket and hockey complex.

For the design work, he chose American Karl Litten, architect of scores of courses. The task of making the whole plan work went to a Yorkshireman, Stephen Trutch, Sheikh Mohammed's engineer.

The project has been a labour of love for golf fanatic Trutch, who has already claimed the first birdie at the Emirates Golf Club during practice over some of the most advanced holes.

For green is now the dominant colour at the 700,000 square metre site, where water drawn from the Gulf and pumped from Dubai's desalination plant is giving life to hybrid Bermuda grass transplanted from Georgia, home

state of the US Masters.

The water sits in two man-made lakes that hold ten million gallons and also provide picturesque, but awkward, hazards on a course looping around them in a classic links design conjured up by Litten out of the sandhills.

From the lakes, the 'life-blood' of the Emirates Golf Club flows through an irrigation system - designed by Litten's representative in Dubai, Larry Trenary - which will protect the grass from the heat and ensure continued growth.

Water is fed to the course by 740 Toro pop-up rotary sprinklers installed below ground level. At the moment, watering is taking place around the clock. By the end of the year, when the grass has become firmly established, only night watering will be necessary.

The sprinklers were chosen because of their electric valve-inhead feature, which allows them to be controlled collectively or individually.

Tift 419 Hybrid B, developed in Tifton, Georgia, one of the premier grass-growing regions of the USA, was chosen for the fairways because it replaces itself quickly and is salt tolerant.

For the greens, Tift 328 has been used. It is a thinner-leafed type of Bermuda, which allows a better run of the ball. Crosscutting can produce a speed of  $9\frac{1}{2}$  on the Stimpmeter.

All the grass was flown in from Georgia in packets sealed to prevent contamination and planted at nurseries immediately on arrival in the UAE.

"After a good heavy turf was established, we used a Ryan Mataway verticut turf mower to pull pieces of root and stem out of the ground," Trenary said.

"The machine has hundreds of little blades that are curled at the end and spin very quickly, go about half an inch into the ground and pull up the grass."

On the greens, the grass was broadcast by hand, but for the fairways, a machine invented by a welder from Oklahoma was brought into use. Costing \$20,000, the machine, which has not been sold commercially, was built to specifications laid down in Dubai. It is towed behind a tractor and drops grass sprigs in any desired frequency.

"Behind is a large roller with knives that dig into the ground down to about six or eight inches.



The rising structure of the Emirates Golf Club clubhouse, where members will dine in a five-star restaurant and enjoy other superb facilities.

Then there is a large roller that closes it all up and tucks it in," Trenary added.

"It can take four or five days to plant an average-size fairway by hand. This machine can do the same work in a couple of hours, covering an area of about three acres (1.5 hectares)."

Even before the first grass was planted at the Emirates Golf Club, enquiries about membership began flooding Stephen Trutch's office. There are currently 250 names on a membership list, which will be extended to 300 when the course opens and will probably rise to 500 in a couple of years.

The Karl Litten organisation is currently formulating a membership structure, along with staffing levels, for a club that will have quite a lot more than golf to offer.

A multi-million dollar clubhouse is growing day by day – it looks like a huge, 21st-century version of a Bedouin tent. Inside, members will dine at a five-star restaurant, relax in saunas and jacuzzis, while nearby others will play tennis, squash and crown green bowling inside an arena that can be floodlit – like the practice range.

Thousands of trees, many of them imported from South America, along with giant cacti from the desert plains of Arizona and California, have been planted around the course. The 3,000 metre perimeter, for instance, is ringed by 2,000 Casurinas, while date and coconut palms stand alongside fairways and greens.

Toss a few crumbs into one of two freshwater lakes and watch Japanese Koi Carp swarm around. There are now an estimated 20,000 of the fish swimming the lakes from an original stock of 4,000. Lately, two salt



water lakes have been dug into the course to provide more colour and two additional hazards.

The biggest of the four lakes, holding six million gallons, guards a giant double green shared by the 9th and 18th holes. The final fairway, on an awesome 555-yard par-five hole, turns into a dog-leg that will be lined by trees.

With so much water around, saving shots won't be easy. Saving water – liquid gold in the desert – won't be easy either. But, as a result of a novel idea dreamed up by engineers, around a third may be recoverable.

As the water drains through the ground, it will gradually float to the top of the natural water table below the surface. Engineers believe it will be possible to pump as much as 40 per cent back up through filters into the lakes within a couple of years.

The idea came from Eric Tulloch, chief engineer at the Dubai Water Department for 25 years, who began pumping water out of the ground to top up the swimming pool in his garden.

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