

## The Company and Project

### FT Leisure – New installation for Swimming Pool Solutions

Swimming pool engineering specialists FT Leisure deliver innovative engineering solutions to the public swimming pool industry, creating safe, fun and functional swimming pools.

Bensons has a long and successful relationship with FT Leisure. Together we have collaborated on the design of control panels for many pools, including UV treatment and water filtration, plus moving floor systems.

Our service to FT Leisure includes both the design and manufacture of control panels together with the programming of the PLCs housed within the panels. This provides the advanced levels of control required to optimise the operation of the end system.

## The Challenge

### A quality, Integrated and Networked suite of control panels within space constraints.

FT Leisure won the major contract to provide the swimming pool solutions for holiday company Center Parcs' newest site; Longford Forest in the Republic of Ireland, which opened in 2019.

A key feature of the Longford Forest site is its Subtropical Swimming Paradise. This attraction includes a wave pool, slides, chutes, wild water rapids, outdoor pools, a lazy river, flumes, a children's pool, plus a spa with hot tubs.

To meet Center Parcs' requirements, FT Leisure needed an integrated and networked suite of control panels, that would enable their wider system. This would provide a central point of control and monitoring for all the various pools on the site.



As Center Parcs needed to optimise the space on site for holidaymakers, they naturally wanted to minimise the space taken up by plant and equipment.

A second consideration was the time the project would take. The control panel suite needed to be designed, built and installed into the site plan room at an early stage of the site construct



## The Solution

### A 'back-to-back' configuration

The overall system requirements for the Subtropical Swimming Paradise were broken down into its constituent pools with a separate design for each control panel.

To address the space constraints, we developed a 'back-to-back' control panel configuration. This meant the individual control panels could be arranged in a suite of panels, placed back-to-back in a single control console which operators could walk completely around.

The completed suite of panels measured 4.5 metres wide and 1.2 metres deep, with eight control panels. To achieve the back-to-back design, we worked closely with our supplier Elsteel, using their modular enclosure system to optimise the external footprint of the panels.

Using the Siemens S7 range of PLCs, we developed a control method for each element of the Subtropical Swimming Paradise, with communication interfaces between various system elements. In addition, an extensive Human Machine Interface (HMI) was developed, allowing FT Leisure engineers to configure the system, as well as enabling Center Parcs staff to operate the system.



## The Result

### Quick response to adapting requirements – Remote support

Engineers supported FT Leisure's team remotely during the integration of the control panels with the rest of the pool systems.

As planned, Bensons' engineers visited the site twice during the commissioning process to support the fine tuning and implementation of the overall system.

When requirements from FT Leisure changed, we were able to respond quickly, modifying the PLC programmes and providing on-site engineers to modify the control panel design to FT Leisure's changing specifications.

The entire suite of control panels was assembled and tested at Bensons' site before delivery to the Center Parcs Longford Forest site.

This included the installation and debugging of the PLC programmes, with everything delivered within the tight timescales

