

CASE STUDY



The Company and Project

Building Management System to create a sterile environment for manufacturing cancer drugs

AstraZeneca (AZ) had committed to the design and build of a new manufacturing line for cancer drugs. Due to the nature of the pharmaceuticals to be produced, the manufacturing line had to be in a sterile environment, requiring a significant investment in a Building Management System (BMS), Air Handling Units (AHU) and fan control systems. AZ commissioned Honeywell to deliver the BMS solution, Honeywell in turn commissioned Bensons to carry out the design and build of the control panels required to enable the operation of the BMS system.

The suite of control panels required consisted of:

- Five Motor Control Centres (MCCs) to provide power to various systems through the plant; and,
- Sixteen AHU control panels, all different but to a common design philosophy.

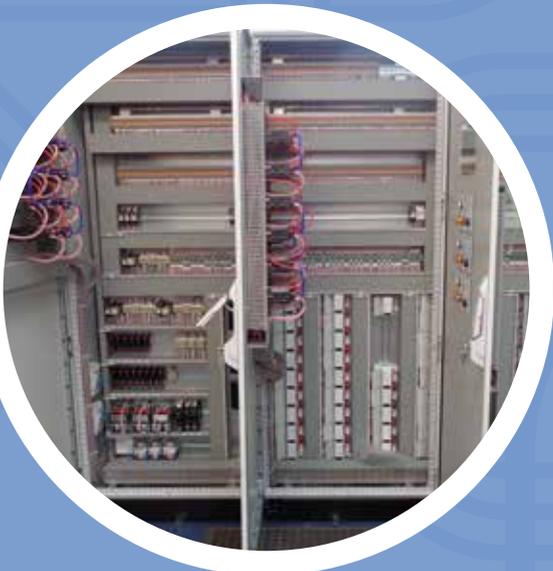
The value of the suite of control panels was c.£550k, design took place in the early part of 2021, with manufacture between May and November of 2021. The overall project occupied c.3,500 hours of production time.

The Challenge

To develop a robust design and build programme

The key challenges associated with the delivery of the project were:

- Agreeing a robust design and build programme
- Creating designs in parallel with evolving requirements from the end customer
- Identifying and scheduling long lead-time items procurement to ensure the parts were available for production when required



- Gaining design approval in line with the plan, and accommodating delays from the end client
- Developing Pre-Delivery Inspection documentation to support the client
- Building and delivery of fully functional control panels in line with changing end client requirements

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The Solution

Cross-business project team alongside expert design & manufacture

Initially Bensons engineering team worked closely with the Honeywell project team to align on requirements, heavily facilitated by Bensons creating a series of plant schematic designs which in turn underpinned the BMS control system design.

Within Bensons an operations team encompassing design, purchasing and production collaborated to agree a manufacturing plan that would meet the needs of the customer. This plan was iterated with Honeywell and AZ prior to agreement, then regularly reviewed and developed throughout the build programme.

Materials were sourced broadly in line with the plan, albeit with some disruption as a result of the Covid-19 pandemic. Where material shortages occurred, these were identified early, and it was possible to mitigate their impact.



The Result

Pre-delivery inspection process - positive feedback throughout

The suite of panels was delivered in line with the pre-agreed plan, in some instances the build schedule was adjusted to align with changing requirements from the end customer.

A process was created by Bensons to allow Honeywell and their client to carry out a structured Pre-Delivery Inspection of all panels. This complemented the existing Bensons test process.

Feedback from the end client of the performance of Honeywell and Bensons on the control panel design and build programme was uniformly positive throughout.

