



MTC

Case Study



About

The Manufacturing Technology Centre (MTC) represents a £40.5 million publicly funded investment and has been developed in response to the Government's manufacturing strategy which sets out an ambitious new vision for high technology manufacturing. Based in Ansty Park in Coventry, MTC's purpose-built facility opened in 2011 and provides an agile environment for the development and demonstration of new technologies on an industrial scale.



The Brief

Sudlows were awarded the contract to design and fit out a new server room for the MTC. This new server room was required to provide essential dedicated IT infrastructure support for one of the advanced MTC's global manufacturing research projects.

The centre will act as a bridge between academic concept development and full-scale production manufacturing solutions. It will benefit from a wide range of industry sectors including aerospace, automotive, rail, healthcare, and ICT.

The MTC has been established to develop and prove innovative manufacturing processes and technologies in partnership with industry, academia, and other institutions. The MTC provides a unique opportunity for manufacturers to experiment with new processes and technologies in a low-risk environment.

The Project

The solution was to design and install a new secure room-within-a-room environment within the existing MTC research facility.

Given the industrial nature of the research and the scale of the building environment, this alone was an engineering challenge. Additionally, the new facility was to be located within a restricted space in an existing plantroom area, whilst still maintaining full maintenance access to the existing gas pipework header arrangement, housed within the area. This required the Sudlows team to prepare the space by diverting a section of existing ductwork and selected parts of the electrical services installation, these also included alterations to an existing access platform.

It was critical that this allocated space was accurately measured even though the ductwork had been diverted; a separate bulkhead was incorporated within the modular room construction to guarantee clear separation from the diverted ductwork. These modifications ensured that the designated area for the IT equipment was not compromised, and the maximum operational footprint was achieved.

Once the final stages of the building works had been completed, two 80KVA UPS units were installed, each fed from diverse Low Voltage (LV) transformers. This, in turn, supplied mains power to the essential distribution boards and subsequently on to the separate 32Amp commando sockets, (two per cabinet).

Due to the confined scale of the modular room a specially designed, low pressure FM200 fire suppression system was deployed to provide comprehensive protection.

The facility upgrades also included a new lighting layout and in-depth earthing arrangement to comply with current data centre standards.

This solution has delivered a high quality, diverse, resilient and fully redundant facility; whilst adhering to strict budget parameters.

The Conclusion

The new facility at Ansty Park will provide the ideal platform for the MTC to expand its vital research work and support both its industrial and academic partners in testing and developing new manufacturing techniques. This critical service will have significant influence in ensuring the continued growth and innovation of manufacturing within the UK.

Testimonials

Duncan Scott, Associate Director at Sudlows commented;

“Data centre design, at this scale, demands an innovative engineering approach. It is these challenging scenarios that help raise standards within the data centre industry as a whole and it’s inspiring to see the project delivery matching and often exceeding client expectations.”

Andy Hirst, Managing Director of Critical Infrastructures for Sudlows added;

“The new server room at the Manufacturing Technology Centre (MTC) is able to support the advanced level of research and data analysis that the MTC requires. We have succeeded in the design and delivery of both a resilient and energy efficient centre infrastructure that will enable the MTC to support manufacturing businesses in their pursuit of world-class performance.”

Leigh Carnes Operations Director at the MTC added;

“We were very pleased with the facility that Sudlows delivered. We felt that the Sudlows team really understood MTC’s business requirements and clearly, they shared our enthusiasm for embedding cutting edge technology in the manufacturing industry.”

Value:
£230,000

Size:
30m²

Duration:
6 Weeks



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