

Data Centre Case Study Madrid, Spain

Overview

The end user (a global IT software and technology corporation) commissioned our client as the main contractor to deliver their flagship Data Centre in the Iberia region. Spain is one of the principal European economies and is currently a developing hub for digital business in southern Europe. The arrival of underwater cables interconnecting with South America and Africa will also open up new opportunities for similar operators and will transform Spain into a destination for major data centre providers.



Sector/Location:
Data Centre, Madrid

Size:
10MVA

Timescales:
April 21 – July 22

Value:
4.6M Euro

- 5 x MTU DS2000 12v4000G*4f Generators for critical standby power
- 1 x HSW-280 T5 – Additional protection for Data Centre admin office
- Bespoke roof mounted flues and silencers wind-loaded to 120mph
- Structurally reinforced enclosures and storage tanks
- Critical power infrastructure pathways
- Successful REA registration

Why AVK?

This exacting end user had a series of complex design requirements to meet both their ambitious sustainability targets and stringent power demands. As AVK have been successfully delivering similar projects across Europe for a number of years, it was our global experience and extensive technical expertise that led our client to approach us to design and deploy the critical power systems for this latest project.

Design Challenges

There were a number of technical challenges to overcome in order to meet the global specification set out by the end user. They required a proposal that met the pre-existing aesthetics of their other international sites, but also met their ambitious, modular objectives for their future developments. Any design we put forward had to meet the requirements of the Madrid site, but also have the flexibility and availability for deployment across additional sites in other countries.

Our experienced engineering team assessed and adapted the original design, and working closely with our Technical Supply Partners, developed several bespoke solutions that met

both this and future global projects. These included:

- Design and build of roof mounted flues terminating at 20m AFFL – wind-loaded to 120mph and incorporating noise reducing silencers
- Enclosures structurally reinforced to support the flues and aesthetically in-line with enclosures on other client sites
- Structurally reinforced belly storage tanks

Delivery Solutions – Local legislations

Post Brexit, businesses operating across Europe are required to comply with several localised national legislations regarding Health and Safety compliance.

AVK were required to apply for registration with the Registro de Empresas Acreditadas (REA) – a Spanish national Registry of Accredited Companies - before any works could commence.

Successful registration with the REA demonstrates that the company satisfies all the Health and Safety requirements for the National construction sector, and additionally meets the labour conditions specific to the local autonomous region of Madrid.

The application for registration is a complex and protracted process which took our dedicated team a number of months to successfully complete as part of the pelim stage.

With strategic delivery planning at the forefront, AVK are now compliant to complete works with other clients throughout Spain.

Delivery Solutions – Leveraging relationships

The Covid pandemic had already presented a number of operational delivery challenges on similar large-scale projects across Europe. Health and Safety concerns, global travel restrictions and most recently raw materials and supply chain delays have all contributed to a demanding period for the industry. AVK have long-standing relationships with our technology manufacturing partners, and it was through these relationships and utilising our strategic planning model that we were able to overcome the majority of supply shortages and minimise programme delays that would have affected further works.

This project has also enabled us to grow and develop invaluable relationships with a number of third-party trades involved in works for this and other Data Centre clients, and it's thanks to this coordination and cooperation and that we were able to deliver on time, and on budget yet again.

For more information on AVK's Data Centre Critical Power Capabilities, please visit www.avk-seg.co.uk or contact us on 01628 503900



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