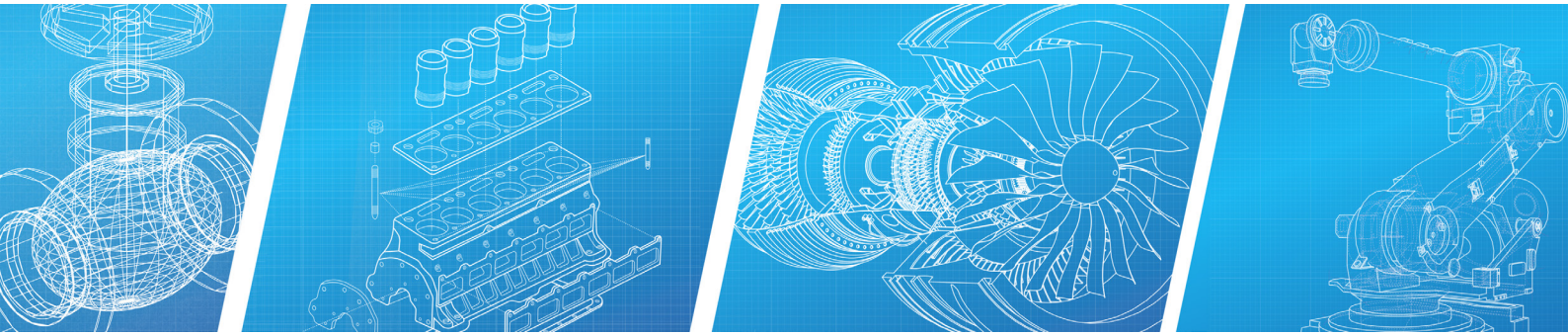
Bowers Group Case Study

Envision AESC Ltd



Company Name	Envision AESC Ltd	**Industry**	Battery Technology
Location	Sunderland, UK	**Product**	BATY Venture Plus Vision System

APPLICATION BACKGROUND

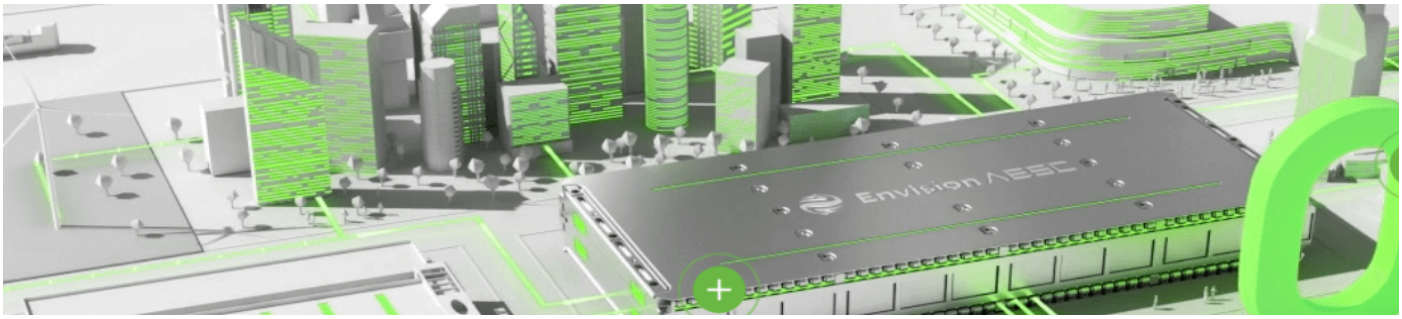
One of the world's leading battery technology companies, Envision AESC, has invested in a Baty Venture Plus Vision System from Bowers Group to boost its non-contact inspection of battery cells. Based in Sunderland, North East England, Envision AESC manufactures Lithium-Ion battery cells, modules and packs to support customers, as well as working towards solving the challenges for a sustainable future with advanced technology.

Through AIoT-driven innovations in battery technology and multidisciplinary applications, Envision AESC establishes scenarios to enable electric vehicles to participate in the renewable energy eco-system and provides a dynamic balance to promote the common development of clean energy and new energy electric vehicle industry.

THE CHALLENGE

Routinely inspecting parts such as EV Battery modules and EV Battery cells, destined for its customers around the globe, Envision AESC prides itself on delivering the highest quality. Prior to the purchase of the Baty Vision System, the team at Envision AESC found that their measurement studies were both time-consuming and complicated.

It was of the utmost importance to invest in a machine that provided consistent accuracy and offered the highest quality, as well as providing the best tool to allow them to test supplier parts issues and undertake internal investigations.



THE SOLUTION

Choosing the Baty vision system was the natural choice for Envision AESC, due to its ease of use and adaptability. The Venture Plus offers a large measurement range, with its bridge-type construction made from aluminium, resulting in low inertia and low thermal mass.

Being non-contact, the Vision System allows inspection of live cells without the risk of electrical contact. Also, a number of Envision AESC's components are particularly complex designs, that make traditional touch probe inspection not always practical.

Typically used by the Quality Engineering function within the company, including QA Inspectors, through to Quality Engineers, the team at Envision AESC has found the Baty Venture Plus extremely easy to use, and intuitive for users that have never previously used CMM systems. The usage of the Baty system can vary depending on the workload at the time, but typically is in use at least 75% of the working week, either completing final inspection reports for customer products, performing routine product audits, or undertaking inspection or investigative work.

For the parts and components that are measured by the Baty Venture Plus, the accuracy has proven to be more than adequate and provides accuracy above that of conventional shadowgraph systems, something that has proven to be significantly beneficial to Envision AESC.

The speed that programmes can be created for new components, and be up-and-running, compared to other CMM systems, has proven to be highly advantageous for rapid investigative inspections, whilst the versatility of both touch probe and vision system is supportive in the range of products and components Envision AESC inspects. The vision system is also being utilised more frequently as an important part of its calibration and verification schedule.

COMMENT

Chris Woodhams, Quality Assurance Engineer at Envision AESC, said: "The ease of use in measuring, programming and generating inspection reports, and the flexibility of combining the benefits of a Vision system with traditional touch probe CMM ensures the Baty Venture is a valuable tool in both routine and non-routine inspections."

"The Baty Venture Plus has reduced the amount of time and complexity to conduct measurement studies, freeing up resources in other areas and allowing routine inspections to be standardised for true data comparison analysis. The support and service from the Bowers Group were always good. Any responses to queries we have had were typically received within the same day and most issues were fixed within 24 hours of initial contact."