

Production technology



Pushing productivity further to expand the market

The manufacturing technology of Asahi Kasei FDK Energy Device Co., Ltd. (AFEC) is a fusion of the technology of two companies. On one hand is the technology of FDK, with the manufacturing technique to support battery plant speed and quality while turning out products at the rate of thousands per minute, along with a quality assurance system that maintains supply of high-performance components to the automotive and other industries. On the other is the technology of Asahi Kasei, with its wide-ranging expertise including knowledge of both organic and inorganic materials.



AFEC uses these production technologies to smoothly integrate lithium-ion capacitors (LICs) into every field, even when LICs are new devices. Meanwhile, AFEC works day after day on building its unique traceability system, developing production technology tailored for the properties of materials, innovating manufacturing methods to shorten processes, and developing assembly methods for new materials.

As the LIC market grows, AFEC will keep working to raise productivity to accommodate expanded market scale, to reduce costs, to improve yield, to build a production system capable of responding to global demand, to achieve zero emissions, and always to keep the environment in mind.

Our Production Technologies

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Product Information

Process development technology

Process development for LICs is essential to demonstrate fully the performance of these new devices. For example, we created a dissimilar metals welding technique using laser by laser between cells in a module, securing a reliable joint in a product that maintains the low resistance that makes LICs stand apart.



Facility design technology

Facility design technology is important for maintaining and improving quality and performance. We apply technical strength supported by experience to instruct machinery manufacturers in optimal design and enhancement. We further make the link to appropriate improvement activities and enhance our production technology.



Quality assurance system

Our quality assurance system is vital for continuous product supply. We work to develop a system which includes a unique traceability system and prompt and appropriate feedback in the case of a quality incident. By doing so, we earn the confidence of the market.

Integrated production system

One of AFEC's biggest strengths is the production technology to go all the way from powder to shipping finished modules. We believe that this enables customer satisfaction in all aspects, including quality, cost, and speed.

What Is LIC?

Features of Lithium-Ion Capacitors
Performance of Lithium-Ion Capacitors
Markets Created by LICs
Application Fields

AFEC's Technology

Cell technology
Module technology
Production technology

Product Information

ECM015PR Series
ECM045SR Series

Application Examples

Corporate Information

Key Message
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