

Merkur Partners with Lion Electric To Successfully Design & Build A Greenfield EV Plant with Speed & Proficiency



With very stringent time-to-market requirements, Merkur rose to the challenge as a trusted end-to-end design & build partner for our client to help carry out an industrialization plan for a new 1 million sq. ft. zero-emission vehicle production plant.

Case Study

Merkur helped design & build a large-scale greenfield EV plant for Lion Electric by driving a high-level strategic & implementation plan to achieve:

- End-to-end plant design & build
- Faster project implementation & time to market
- Large-scale equipment procurement & quality management
- Delivery of detailed layouts including 80+ bus-sized assembly line stations
- Simulation of critical operations
- Effective knowledge transfer to client's new hires



Project Overview

Lion Electric, a zero-emissions vehicle manufacturer, approached Merkur to design and carry out an industrialization plan for a new zero-emission vehicle production plant in Joliet, IL.

Merkur partnered with the client on several levels :

- 1 Established a multidisciplinary team of experts to plan and execute the project, who first defined the project plan and conducted needs analysis.
- 2 Participated in the development of the manufacturing strategy and financial plans (budgets, schedule, and square footage requirements).
- 3 Developed processes, implementation of management tools and implementation of a document management plan.
- 4 Industrialization, technological optimization and overall layout of the plant and workstations as well as detailed engineering management.
- 5 Support for the implementation of the plant layout and the launch of production.



Stringent Time to Market Needs

Successfully met a tight schedule, driven by the competitive nature of the electric vehicle industry, to meet client's time to market needs.



Evolving Project Requirements

Worked in an agile mode to allow for resequencing of milestones and restructuring of the project to align to changing market needs.



Large-scale Project Coordination

Managed a multi-site & multidisciplinary team: product engineering, procurement & industrial engineering resources in three global locations.



Design of Structures and Processes

Created structures and processes that allowed our client to manage their first major project in the US.



Management Strategy Design

Transformed existing strategies and implemented new manufacturing strategies to help our customer reach their target production rates.



Merkur was proud to partner with Lion Electric on this important and strategic turnkey project. Our project management and technical skills were put to the test, and we delivered!

~ **Louis Labonté**
Project Director, Merkur

Results

Despite a limited time to production, need to adapt to a fast-changing market, and a complex, matrixed, multi-language, international team, Merkur was able to fill skilled labor gap needs with qualified resources that led to faster and competent project implementation and time-to-market.

In a true Merkur spirit, we enabled education and knowledge transfer to our client's new hires in key roles across the organization.

- Development and implementation of all equipment, jigs, fixtures, & tools
- Development and implementation of required utilities (electric, air, gas)
- Full project management of 40+ person integrated team
- Customized real-time Department Smartsheet Dashboards
- Organizational effectiveness analysis and optimization
- Implementation of a \$2.3M brownfield offsite warehouse via customer team/supplier project management

40%

Takt Time
Reduction

\$40M

Equipment &
Tooling

2000+

Timeline
Tasks

80+

Bus-sized Assembly
Line Stations

40+

Three-dimensional
Dashboards



Executive Towers West,
1431 Opus Pl STE 110
Downers Grove, IL 60515



(877) 571-0222

For over 30 years, our goal is to enhance the performance of your manufacturing business. Our focus is on empowering our clients through engineering & manufacturing projects that elevate productivity, business strategies that lead market expansion, and operational excellence that drives down costs.