

Press release

Complete plant and digitalization technology for the production of vehicle batteries from European suppliers

iTAC and partners are enablers for the battery factory of the future

Montabaur, May 29, 2024 – In Europe, there was no supplier that could provide the complete system technology for the production of vehicle batteries from a single source. Dürr, iTAC and other partners have changed that. They offer manufacturers of lithium-ion batteries production and digitalization technology from a single source – across the entire value chain. iTAC Software AG handles the digitalization part with its MOM system (Manufacturing Operations Management).

According to the German Federal Motor Transport Authority, around 524,200 all-electric cars were newly registered in 2023 – an increase of 11.4% compared to the previous year. As demand increases, so do the requirements for battery production. Production capacities must be able to be expanded quickly and manufacturing efficiency must be continuously improved in order to keep pace with demand and reduce production costs. At the same time, strict quality controls and safety measures must be guaranteed to ensure that the batteries are safe to use.

Last year, Dürr, GROB and Manz formed the first European cooperation to emerge in the field of production technology for lithium-ion batteries – with the aim of establishing themselves as suppliers of complete battery production systems. Together with other partners, they offer the entire plant and digitalization technology for the production of vehicle batteries from a European

iTAC Software AG
Aubachstr. 24
56410 Montabaur
Germany

Phone +49 2602-10 65-0
Fax +49 2602-10 65-30
contact@itacsoftware.com
www.itacsoftware.com

source. The value stream covers all stages from electrode production to battery pack assembly.

End-to-end digitalization for battery production

In this context, iTAC is the expert for the digitalization of processes. The iTAC.MOM.Suite production management system from iTAC and Dürr can map all processes end-to-end. It enables the mapping, control and planning of the entire production process as well as traceability.

Traceability is one of the most important building blocks here. "In the demanding production of battery cells, materials are used that are difficult to process and sometimes very dangerous. To minimize risks, avoid errors and optimize processes, end-to-end traceability and quality analysis are essential. In this way, quality and performance characteristics as well as all standards and other requirements can be met," explains Martin Heinz, board member of iTAC Software AG.

In addition to the traceability functionality, the iTAC.MOM.Suite offers tools such as the iTAC.BI.Service and Quality Management. These provide analysis and reporting functions for all product-related quality data. This allows the quality of the electrodes to be evaluated and analyzed throughout the entire process. "Defects, such as holes that can occur in the coating production process, are documented, can be traced and thus sorted out in later process steps. Transparency in production is possible with both business intelligence and real-time dashboarding. This makes optimization potential visible," says Martin Heinz.

The use of data analytics tools ensures that changes and anomalies are detected at an early stage, thus creating the basis for predictive control of production processes (predictive quality) in battery production. In addition to the lithium-ion battery cell, other cell types can also be mapped in the iTAC solution.

At the same time, it is important to ensure a high level of efficiency through sophisticated production planning in order to meet the continuously increasing

iTAC Software AG
Aubachstr. 24
56410 Montabaur
Germany

Phone +49 2602-10 65-0
Fax +49 2602-10 65-30
contact@itacsoftware.com
www.itacsoftware.com

demand. In combination with the Advanced Planning and Scheduling System (APS) from DUALIS integrated in the iTAC.MOM.Suite, optimized production planning based on actual and limited capacities is possible. This creates a holistic planning approach that takes all resources (machines, processes, tools, materials, personnel) into account and ensures their optimal use.

Martin Heinz explains: “In combination with the system technology, we are working with Dürr and the other partners to enable manufacturing companies to increase their production capacities for batteries quickly and safely. They don't have to spend time searching for several partners who ultimately offer isolated solutions, which can be at the risk of process efficiency and cost-effectiveness.”



iTAC and partners are enablers for the battery factory of the future

Image source: AdobeStock_448277000

iTAC Software AG
Aubachstr. 24
56410 Montabaur
Germany

Phone +49 2602-10 65-0
Fax +49 2602-10 65-30
contact@itacsoftware.com
www.itacsoftware.com

About iTAC

iTAC Software AG, an independent company of the mechanical and plant engineering firm Dürr, provides internet-enabled information and communication technologies for the manufacturing industry. Founded in 1998, the company is one of the leading MES/MOM providers. The iTAC.MOM.Suite is a holistic Manufacturing Operations Management that is used worldwide by companies in different industry sectors such as automotive, electronics/EMS, telecommunication, medical engineering, metal casting and energy. Additional services and solutions for implementing IIoT and Industry 4.0 requirements complete the portfolio. iTAC Software AG is headquartered in Montabaur, Germany and has offices in the USA, Mexico, China and Japan and has a worldwide partner network for sales and service. iTAC's philosophy is to connect people, data and systems.

The Dürr Group is one of the world's leading mechanical and plant engineering firms with particular expertise in the technology fields of automation, digitalization, and energy efficiency. Its products, systems, and services enable highly efficient and sustainable manufacturing processes – mainly in the automotive industry and for producers of furniture and timber houses, but also in sectors such as the chemical and pharmaceutical industries, medical devices, electrical engineering, and battery production. In 2023, the company generated sales of €4.6 billion. The Dürr Group has around 20,500 employees and 142 business locations in 32 countries, and it operates in the market with five divisions.

Contact

iTAC Software AG

Alina Leber

Inbound Marketing

Tel.: +49 2602 1065 211

Fax: +49 2602 1065 30

alina.leber@itacsoftware.com

punctum pr-agentur GmbH

Ulrike Peter

General Manager

Phone +49 211 971 7977 0

pr@punctum-pr.de

iTAC Software AG

Aubachstr. 24
56410 Montabaur
Germany

Phone +49 2602-10 65-0
Fax +49 2602-10 65-30
contact@itacsoftware.com
www.itacsoftware.com