

Battery Production Machine Market by Machine Type (Mixing, Coating & Drying, Calendaring, Slitting, Electrode Stacking, Assembly & Handling, Formation & Testing Machines), Battery Type (NMC, NCA, LFP), Application and Region - Global Forecast to 2027

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Abstracts

The global battery production machine market size is estimated to grow from USD 7.3 billion in 2022 to USD 19.4 billion by 2027, at a CAGR of 21.5%. In recent years, the demand for lithium-ion batteries has been increasing at an impressive pace in automotive, renewable energy, and industrial applications. With the growing demand for electric vehicles, such as lightweight commercial vehicles, passenger light-duty vehicles, buses, and trucks, the demand for lithium-ion batteries is also skyrocketing in the automotive sector worldwide. Lithium-ion battery manufacturers are adopting different technologies to increase the efficiency of EV batteries. Substantial investments are also being made in R&D to make batteries more efficient, safe, and long lasting, especially for energy storage and industrial applications. China, Europe, the US, Japan, and India are expected to be the largest EV markets. With the rising demand trend for lithium-ion batteries in the EV market, the requirement for battery production machines is projected to proliferate.

'Formation and testing machines to hold largest share of battery production machine market in 2027"

The formation and testing of cells are carried out once their assembly is completed. The working materials must be activated and converted into their usable state by running the cell through at least one carefully timed charge/discharge cycle after cell assembly is complete. The charging process starts with a low voltage and progressively increases rather than the normal constant current and voltage. This process of gradual increase in

voltage is referred to as the formation process. The process involves creating the SEI (solid electrolyte interface) on the anode for the different lithium-ion battery chemistries. This passivating layer is crucial for controlling the charging process in normal usage. Also, before the final shipping of the battery cell or battery back, the batteries are quality tested. This is a crucial test to avoid accidents or faults in the battery. Hence, after the assembling processes, the batteries are quality inspected by formation and testing processes.

“The market in Europe is expected to grow with the highest CAGR during the forecast period”

Europe has a large presence of automobile manufacturers. With the rising trend of e-mobility, a huge demand for electric vehicle batteries in the region has been created. Moreover, there is a shift from fossil fuel to renewable energy generation, increasing the demand for sustainable batteries, such as lithium-ion batteries, in all segments, such as consumer electronics, electric vehicles, and energy storage. To cater to this demand, the European Battery Alliance has undertaken initiatives such as “Battery 2030+.” It is a large-scale research initiative driving the research, development, and invention of new battery technologies in the region. This initiative is a part of the European Commission’s USD 265 million support to accelerate battery research and development.

Major players profiled in this report are as follows: Wuxi Lead Intelligent Equipment Co., Ltd. (China), Shenzhen Yinghe Technology Co., Ltd. (China), Hitachi, Ltd. (Japan), Schuler Group (Germany), Durr Group (Germany) and others.

Research Coverage

In this report, battery production machine market in detail, with segmentation based on machine type, battery type, application, and region. The machine type includes the various machines used in the manufacturing processes, such as mixing, coating and drying, calendaring, slitting, electrode stacking, assembling and handling, and formation and testing. The battery types include Nickel Cobalt Aluminum (NCA), Nickel Manganese Cobalt (NMC), and Lithium Iron Phosphate (LFP). Further, automotive, renewable energy, and industrial applications of battery production machines have been covered in this report. The market has also been segmented into four regions—North America, Asia Pacific, Europe, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

This report segments of the battery production machine market comprehensively and provides the closest approximation of the overall market size and subsegments that include machine type, battery type, application, and region.

The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the battery production machine market.

This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.

The competitive landscape section includes the competitor ecosystem, as well as growth strategies such as product launches and acquisitions carried out by major market players.

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*Details on Business overview, Products offered, Recent Developments, MNM view might not be captured in case of unlisted companies.

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