

Li-Ion Cells & Battery Packs Automation Market Review

Li-Ion battery market is in a fast growing.

2017 li-ion battery market size estimations are for 120Gwh production, and \$25B for cell market and extra \$32B for battery pack market.

2018 market grow expected to be in high numbers.

Main drive for the market grow is the E-Mobility and ESS batteries as well as all other traditional market segments.

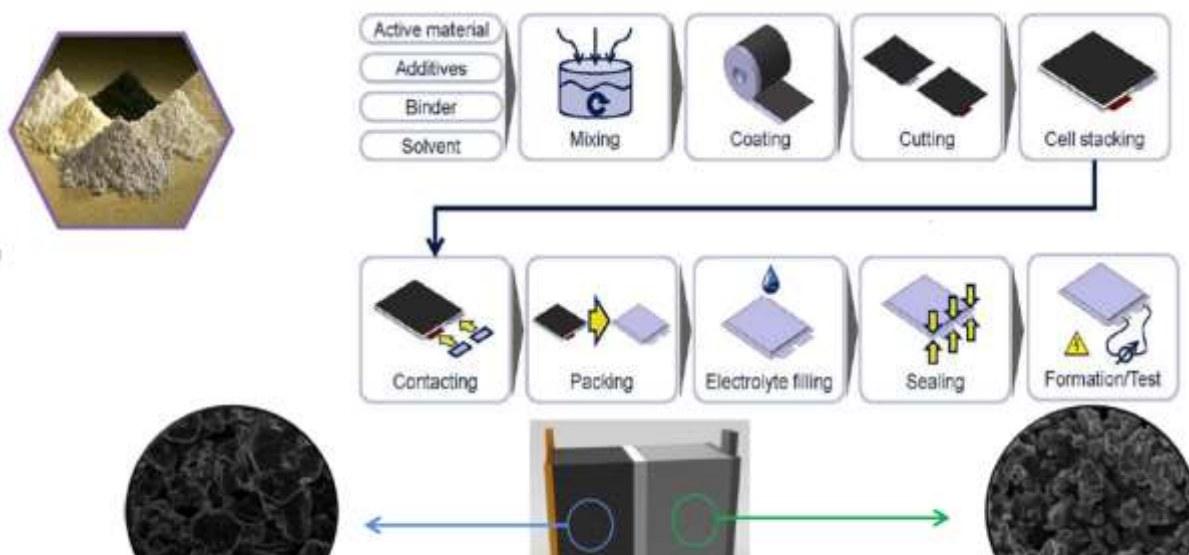
Estimation for 2025 are for 480GWh production and \$50-80B for cells market.

We see a grow on li-ion pouch and cylindrical hard case production while lion prismatic hard case production is declining.

Main li-ion cells and battery pack production is in the far east (China, Korea, Japan) while we see plans for more production in Europe and later follow also in the USA.

That market grow request more and more automation for production of li-ion cells and li-ion battery packs.

A typical li-ion pouch cells manufacturing process:



In that market report we analyse and review the world Li-Ion cells and battery packs automation market.

The market is lead by companies that provide a full cells or battery assembly line (Hardware and software) as well as by companies that are specialized in specific machines like mixers or coaters.

Both are covered by this report.

We see that report as a must to be purchase by every industry member that plan to build or to increase li-ion cells or li-ion battery packs production and for any other industry member who want to know that market.

Report content

Introduction

Li-Ion Cells manufacturing process (Pouch, cylindrical. Prismatic)

Electrode manufacturing

Wet materials processing

Critical Steps in Slurry Preparation

Coating and Compacting-Calendaring of Electrode foils

Electrode coating process

Electrode Drying and Sizing

Slitter – Puncher – Stacking

Electrode Lamination and Notching

Winding for cylindrical cells

"Dry" Cell Assembly

Electrolyte Filling

Cell formation

Flow diagram of li-ion battery manufacturing

Materials used by li-ion cells

Li-Ion cells and battery packs production equipment road-map

4 academic research reviews on improving li-ion cells manufacturing

Li-ion cells and battery pack automation companies review including company background, machines and production lines offered by the company.

List of leading li-ion automation companies reviewed by this report:

| Laser Cutting Machine | Slurry Mixers | Coating Machines |
|-----------------------|-------------------------|-------------------------|
| Company 1 (USA) | Company 1 (Switzerland) | Company 1 (China) |
| | Company 2 (Germany) | Company 2 (Germany) |
| | Company 3 (Germany) | Company 3 (USA) |
| | Company 4 (Japan) | Company 4 (Germany) |
| | Company 5 (USA) | Company 5 (USA) |
| | | Company 6 (Germany) |
| | | Company 7 (Korea) |
| | | Company 8 (Switzerland) |
| | | Company 9 (USA) |
| | | |

| | |
|----------------------------|--------------------------------|
| Drying Equipment | Winding Machines |
| Company 1 (Sweden) | Company 1 (Korea) |
| Company 2 (USA) | Company 2 (China) |
| Company 3 (Denmark) | Company 3 (Korea) |
| | Company 4 (Switzerland) |
| | Company 5 (China) |

| | |
|--|----------------------------|
| Separator Manufacturing Automation line | Forming Machines |
| Company 1 (Germany) | Company 1 (Taiwan) |
| Company 2 (Germany) | Company 2 (Germany) |
| Company 3 (Czech Republic) | Company 3 (China) |
| Company 4 (Korea) | Company 4 (USA) |
| Company 5 (Korea) | Company 5 (USA) |
| | Company 6 (Korea) |
| | Company 7 (Belgium) |
| | Company 8 (China) |
| | Company 9 (USA) |
| | Company 10 (China) |
| | Company 11 (Italy) |
| | Company 12 (China) |

Full Li-Ion Cells & Pack Assembly line

Company 1 (Canada)

Company 2 (China)

Company 3 (Korea)

Company 4 (China)

Company 5 (Japan)

Company 6 (China)

Company 7 (Germany)

Company 8 (Japan)

Company 9 (China)

Company 10 (USA)

Company 11 (China)

Company 12 (Canada)

Company 13 (USA)

Company 14 (Japan)

Company 15 (Germany)

Company 16 (China)

Company 17 (Japan)

Company 18 (Germany)

Company 19 (China)

Company 20 (Germany)

Company 21 (Germany)

Company 22 (Japan)

Company 23 (Japan)

| |
|-----------------------------|
| Company 24 (Korea) |
| Company 25 (Austria) |
| Company 26 (China) |
| Company 27 (China) |
| Company 28 (China) |
| Company 29 (Japan) |
| Company 30 (Germany) |
| Company 31 (Italy) |
| Company 32 (Korea) |
| Company 33 (USA) |
| Company 34 (Germany) |
| Company 35 (China) |
| Company 36 (Korea) |
| Company 37 (Japan) |
| Company 38 (China) |
| Company 39 (China) |
| Company 40 (China) |
| Company 41 (Japan) |
| Company 42 (China) |

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