

# Battery Production Improvement by Automatic Coating Control

## Why is it necessary?

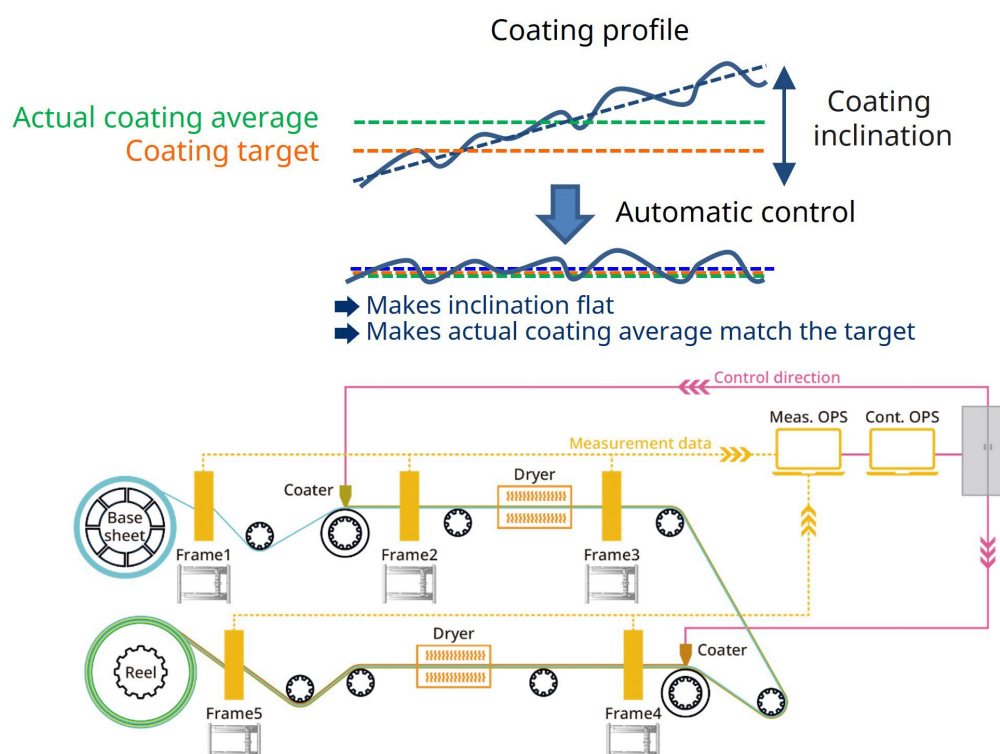
As interest in renewable energy and efforts toward a decarbonized society spread, and investment in battery manufacturing has increased, various issues in manufacturing have surfaced.

- Save energy and material consumption in manufacturing
- Improve production efficiency per production line
- Improve yield
- Save labor cost

Yokogawa solves these issues with automatic coating control.

## How can we contribute?

Automatically controls the output of the coating machine by YOKOGAWA original algorithm (patented) when coating the active material on the electrode, shortening the coating amount convergence time and improving uniformity. This contributes to **consumption saving, production efficiency improvement, safety improvement, and labor saving.**

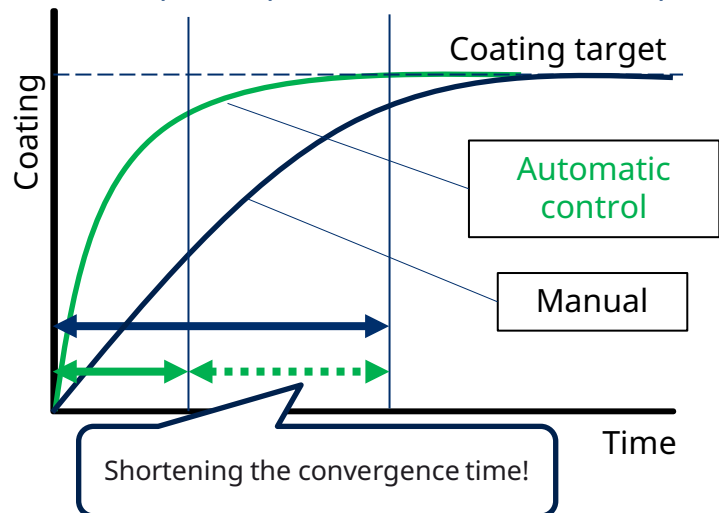




## Consumption saving, production efficiency improvement

Shortening the convergence time to acceptable product at the line start-up

Shortening the convergence time, material consumption can be saved by tens of thousands to hundreds of thousands USD in one year!  
It is also possible to produce more products by additional secured time.



Trial Calculation – Consumption saving by shortening convergence time -

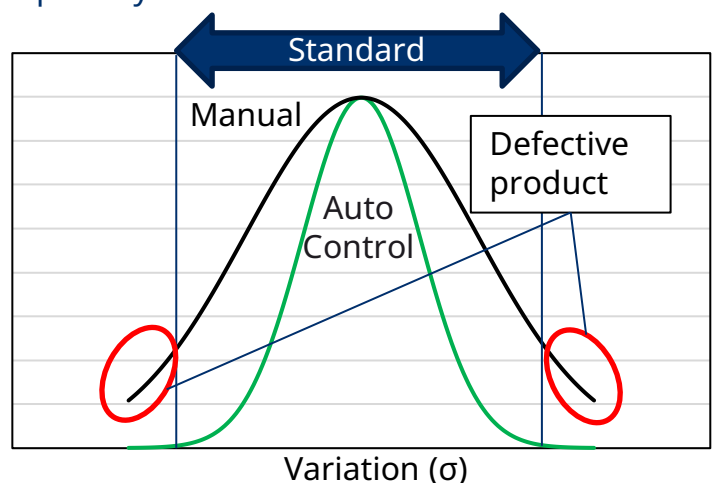
Consumption saving = (material consumption) x (shortened convergence time) x (number of start-ups) x (number of operating days per year)



## Consumption saving, safety improvement

Preventing variations of coating to improve yields and the risk of fire accidents

By preventing defective product, production efficiency will be improved and save wasted material consumption.  
The risk of fire accidents is also reduced.



## Labor saving

Labor saving in operations

Since manual adjustment is not required, one operator can operate multiple lines, which can be expected to reduce labor costs.

Trial Calculation – Labor cost saving by automatic control -

Labor cost saving = (operating hours) x (annual operating days) x (number of lines) x (reduction of operators) x (labor cost)

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