



Coating solutions for battery products market brochure



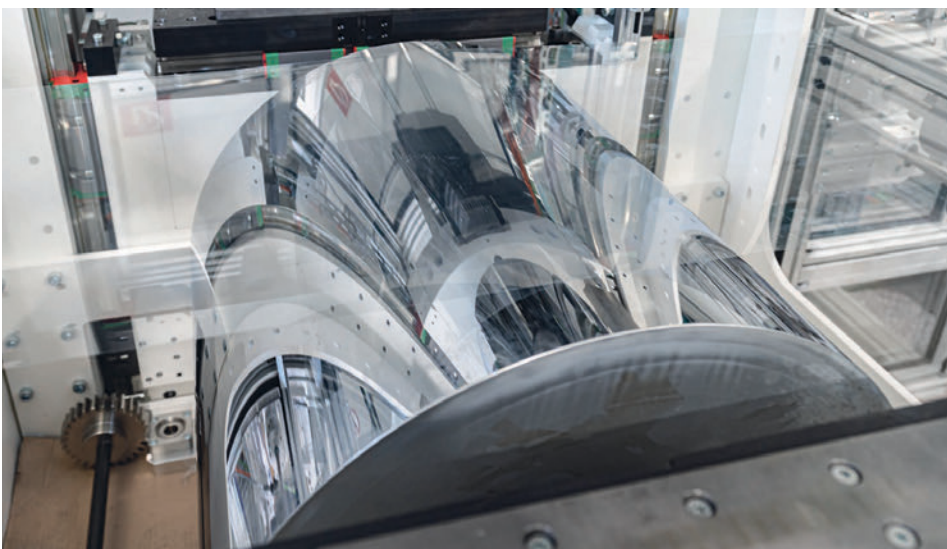
Enabling your products

Battery technology and upscaling enabler

Coating solutions play a critical role in ensuring the efficient and reliable operation of Li-ion batteries. With over twenty years of experience in the battery markets, Coatema has established itself as a trusted and competent partner for the entire battery development process, from research and development to serial production.

Our extensive experience working in battery clusters such as the RWTH eLab in Aachen has given us a broad and extensive understanding of battery technology. We specialize in a variety of battery types, including Li-ion, solid state, redox flow, and others. Our main area of expertise is in single or double-sided slot die coating, efficient drying, and calendering, ranging from smaller sample-size and pilot systems to integrated production solutions with a working width of up to 1,500 mm.

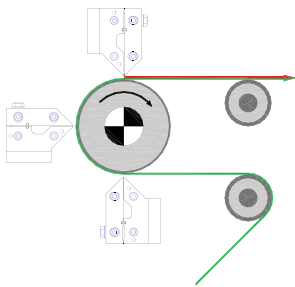
We utilize state-of-the-art coating equipment, processes, and procedures to enable high-quality and reliable Li-ion battery solutions for our clients.



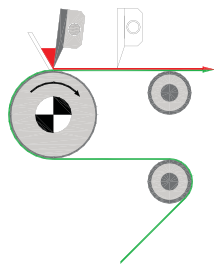
Calander for Li-ion batteries



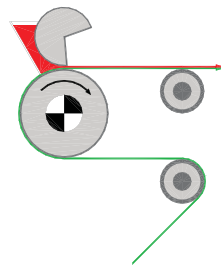
Selection of core battery coating and printing systems



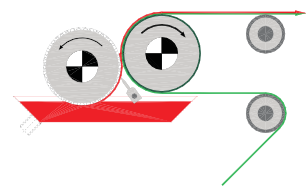
Slot die system



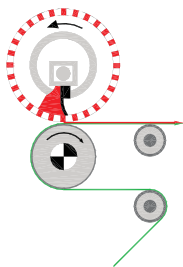
Doctor blade system



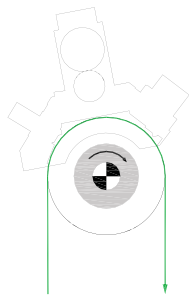
Commabar system



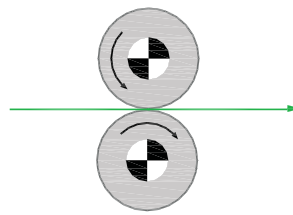
Engraved roller system



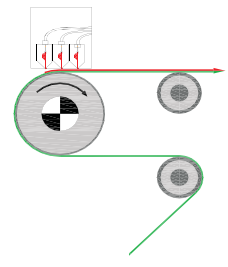
Rotary screen system



Nanoimprint system

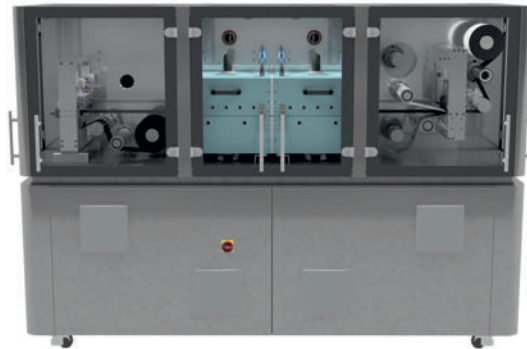


Calender system



Inkjet system

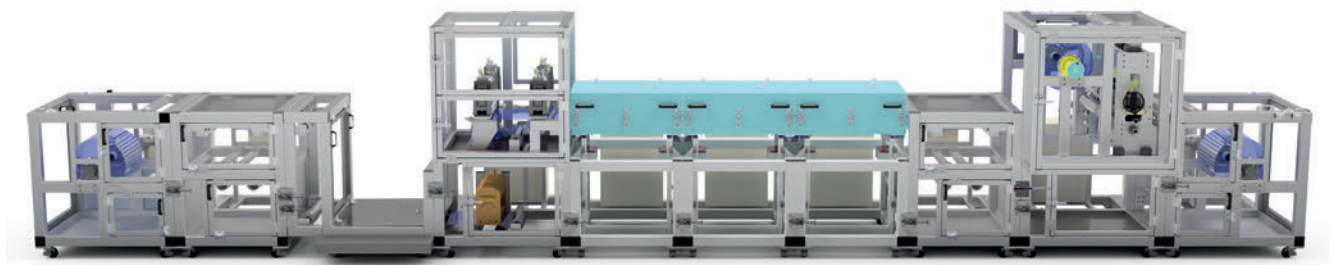
Coatema's lab, pilot, and production solutions for your individual needs



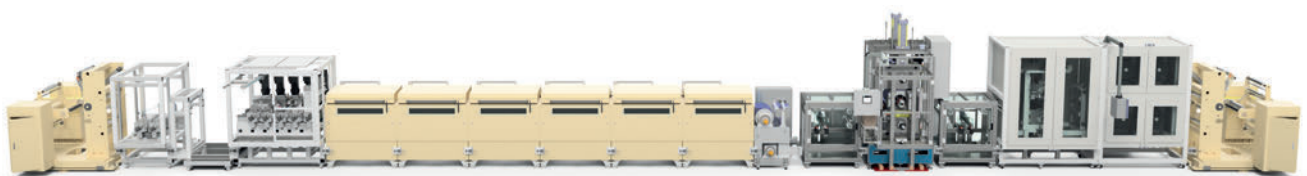
Test Solution R2R



Smartcoater R2R



Extended configuration of a Click&Coat™ coating line



Click&Coat™ in production scale



Battery technology

Our core competencies as technology enabler

Coating solutions establish the foundations for all efficient and reliable operations of various types of batteries, including Lithium-ion batteries, solid state batteries, and other emerging battery types.

At Coatema, we have extensive experience in the battery industry of over more than 20 years. We have established close partnerships with top research institutes worldwide, allowing us to provide comprehensive support for the entire battery development process, from research and development to mass production. Our core expertise lies in the development of advanced coatings for battery components, including intermittent coatings and simulating, designing and producing our own Coatema slot die systems. We offer a variety of coating concepts, from A4 S2S systems to integrated R2R production solutions with a working width of up to 1,500 mm.

We specialize in all reliable and scalable coating and printing processes, including slot die, doctor blade, comma bar coating, rotary screen printing, and engraved roller printing. Our equipment includes highly energy-efficient drying systems, such as roller-supported, flotation, and alternative drying systems like infrared, NIR, and laser. All of our processes can be conducted under an inert gas atmosphere to ensure optimal performance. Inline and offline calendering solutions represent another part of our product portfolio for battery applications.

Coatema's distinctly designed overall process control ensures high accuracy and very precise tension control in all our use cases. Integrated quality controls, like thickness and moisture measurement, optical inspection and incorporation of the respective data with industry 4.0, allows our customers to continuously improve their processes, from R&D to manufacturing. We call this: lab2fab!



Coatema R&D solutions

At Coatema Coating Machinery GmbH in Dormagen, Germany you have the opportunity to work in the world's largest and most versatile R&D centre for coating, printing, and laminating.

- ✓ Equipped with S2S and R2R coaters, pilot lines for coating & printing, versatile and modular Click&Coat™ systems
- ✓ Over 10 pilot lines with working widths from 100 mm up to 500 mm in operation, also available in virtual trial runs
- ✓ Experienced technical and executive staff, well equipped chemical labs & meeting rooms
- ✓ Needs based analysis and measured, actionable results before, during, and after process trials
- ✓ From idea to process to product, the Coatema R&D centre with the R&D projects team is the place to be for everyone in fuel cells, electrolyzers, batteries, membranes, solar, printed electronics and more

If you like to run trials please contact:
sales@coatema.de or call: +49 21 33 97 84 - 0



**Visit our
R&D website**



**Visit our virtual
R&D centre**



Research & development centre at Coatema