



RIEDHAMMER

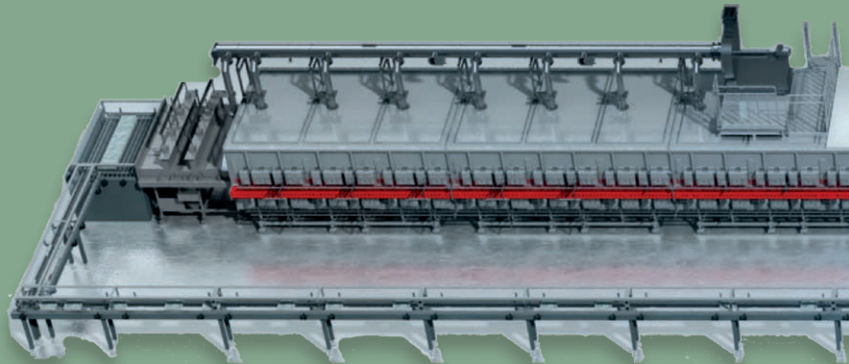
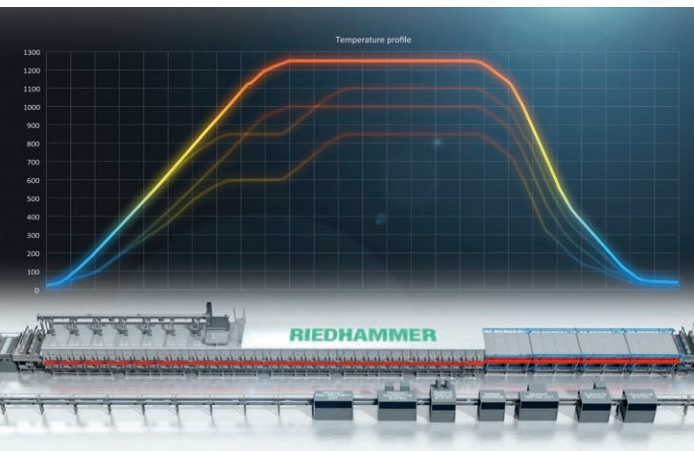
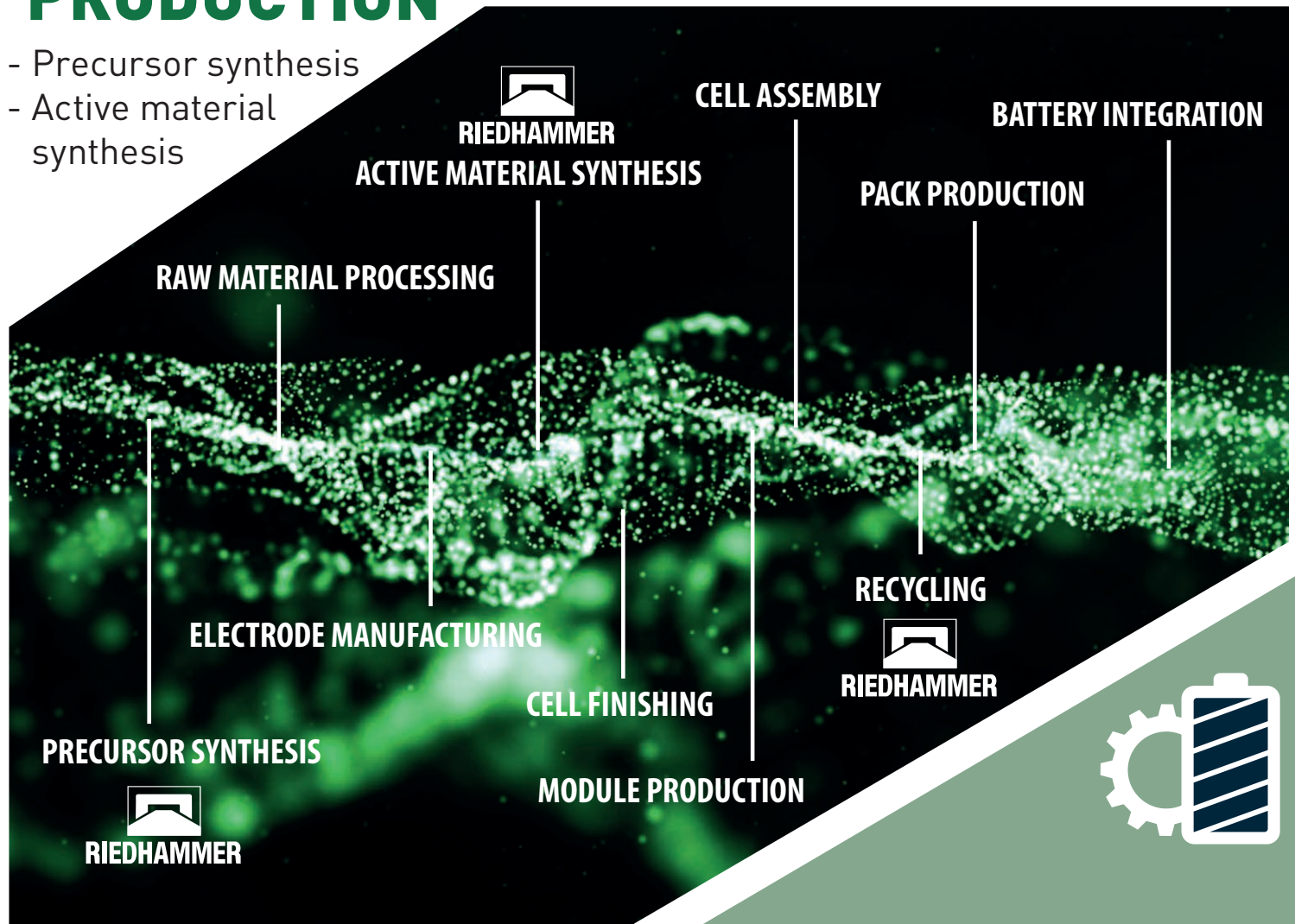
committed to your needs

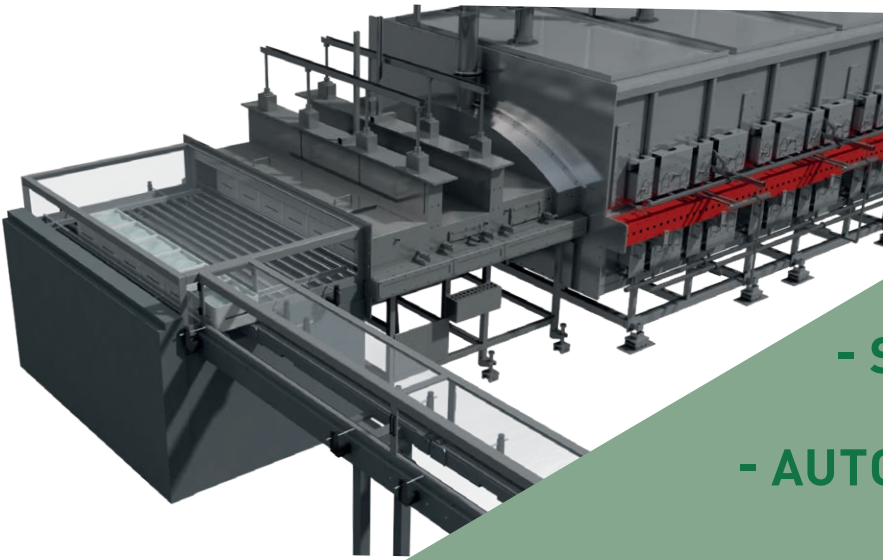


**THERMAL PROCESS SOLUTIONS
FOR THE LITHIUM BATTERY INDUSTRY**

PROCESS CHAIN FOR LITHIUM BATTERY PRODUCTION

- Precursor synthesis
- Active material synthesis



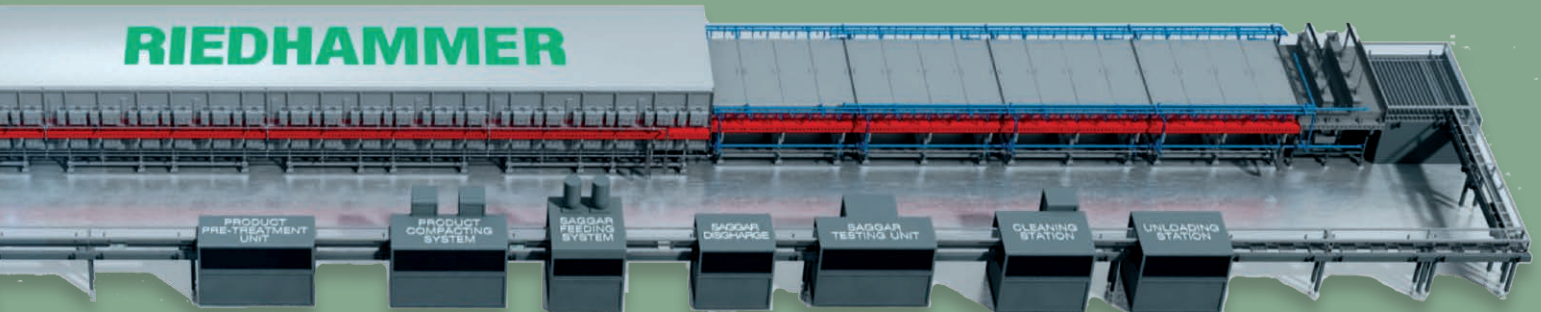


- SAGGER CIRCULATION LINE
- WITH
- AUTOMATIC SAGGER HANDLING
- AND
- POWDER HANDLING SYSTEMS

ROLLER HEARTH KILNS

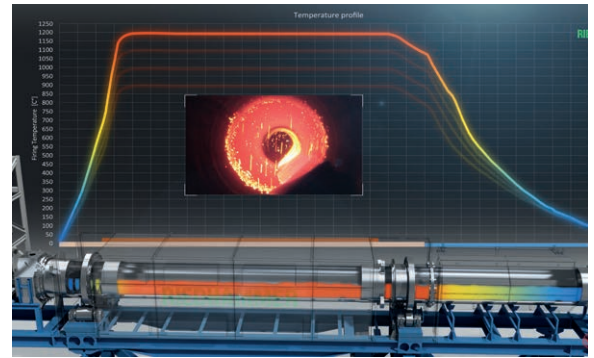
- Tailor-made process requirements
- 4-tray, 6-tray width with multiple layer configuration
- High O_2 atmosphere > 99 %
- Inert gas atmosphere (N_2 , Ar, CO_2 and others) < 30 ppm O_2
- Special atmosphere (H_2 , CO, CH_4 and others)
- Optimal temperature distribution
- Length up to 150 m
- Gas-tight kiln casing
- Uniform product treatment

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ROTARY KILNS

- No need for saggers or handling
- High output capacity due to excellent heat transfer and short cycle time
- Customized solution, tailored to your product
- Adjustable tilt and rotation speed
- Precise atmosphere adjustment inside rotary tube
- Gas-tight feed system
- Cooling tube



Wide range of powder calcination and sintering processes

- High O_2 atmosphere > 99 %
- Inert gas atmosphere (N_2 , Ar, CO_2 and others) < 30 ppm O_2
- Special atmosphere (N_2CO , CH_4 and others) < 30 ppm O_2
- Air atmosphere



Services:

Analysis of individual requirements

Customized kiln solutions

Design concepts

Detailed offers

Process engineering

Production and testing

Shipping, assembly, commissioning on site

Documentation

Production support

Process analysis

Maintenance

Plant revamping

Support for related processes and equipment via a broad network throughout the LiB industry

EXPERTISE IN BATTERY KILN MANUFACTURING

Thanks to our extensive expertise we offer a broad, customizable, high quality equipment/solutions range for Lithium-ion battery materials.

LARGE NUMBER OF COMPLETED PROJECTS WORLDWIDE

- MORE THAN 250 BATTERY KILNS SUCCESSFULLY BUILT AND IN OPERATION!
- > 100 KILNS FOR HIGH O₂ OPERATION!
- > 130 KILNS IN ASIA!
- SUCCESSFUL PROJECTS IN CHINA, SOUTH KOREA, NORTH AMERICA AND EUROPE!
- SUPPLYING KEY PLAYERS IN THE BATTERY BUSINESS.

HIGH MANUFACTURING QUALITY

- Well equipped workshops
- High level quality control management by Riedhammer/Sacmi
- Use of high grade materials and components
- Quality and performance validation in our workshop (FAT)
- ISO 9001 certified
- Production tolerances compliant with German manufacturing standards
- Continuous development/improvement of equipment
- Special/tailor-made solutions
- Reliable suppliers

HIGH EFFICIENCY

- Reliable long lifetime equipment
- Very low specific energy and media consumption
- High productivity
- Excellent temperature uniformity
- Strong, reliable sagger circulation and handling system
- Fully automated operation by PLC system
- Multiple temperature profiles available

EXCELLENT SERVICE

- High performance service
- Efficient operator training
- 24-hour response time for troubleshooting
- Remote control for fast technical support



RIEDHAMMER

committed to your needs

a company of  **SACMI**

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