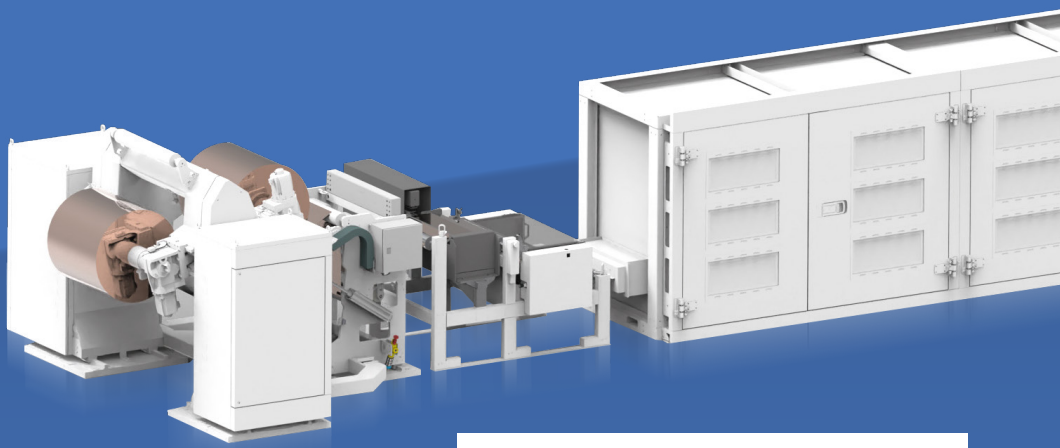
jagenberg
Converting Solutions

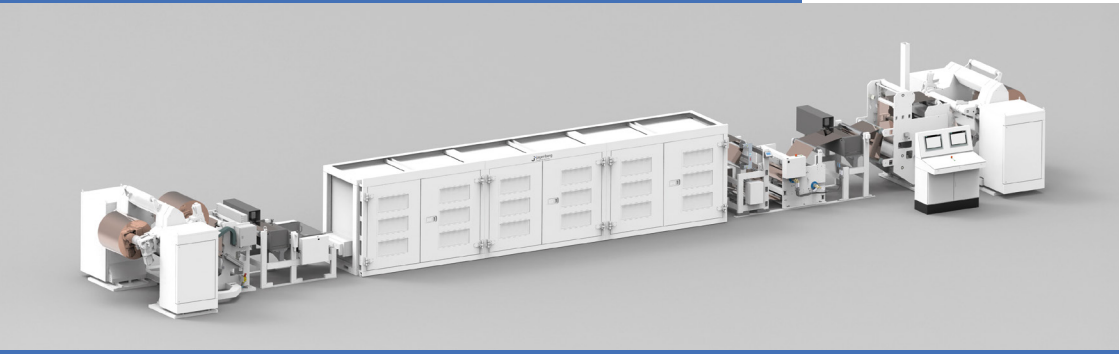
Integrate.Converting.Competences.



R2R Post Drying & Triplex DryStar Dryer

Down to 150 ppm RMC

R2R Post Drying



EFFICIENT POST DRYING OF ELECTRODES FOR LI-ION BATTERIES

Optimized drying.
Intelligent control.
Maximum productivity.

The Triplex DryStar Dryer is a roll-to-roll post drying machine specifically designed to meet the high quality standards required for post drying electrodes prior to cutting in lithium-ion battery production.

Optimized drying technology

- Efficient energy consumption thanks to optimum ratio of convection and IR radiation.
- Precision-controlled drying process - resource-saving minimum fresh air volume based on the company's own drying simulation software.

Intelligent temperature monitoring & control

- Precise control: avoids hot spots and distributes temperature evenly.
- Adaptive control: adjusts perfectly to different material characteristics.

Non-stop production & high efficiency

- Integrated unwinder and rewinder: enable continuous operation for maximal line availability.
- Dry room design: meets demands of controlled production environments.

Your advantages at one glimpse:

- Increased product quality with optimized drying.
- The high air circulation rate ensures energy efficiency.
- Maximum line availability through non-stop operation.
- Future-proof technology for modern battery production.

Technical Data

Material
Calendered electrode coated foil (single or double side coated)

Foil thickness
Anode: 12 µm
Cathode: 6–8 µm

Coating
Anode: 50–200 g/m²
Cathode: 70–200 g/m²

Material width
from 300–700 mm*

Mechanical speed
100 m/min**

Coil diameter
1,200 mm

Max. coil weight
1.5 t

Dryer temperature max.
200°C (392°F)

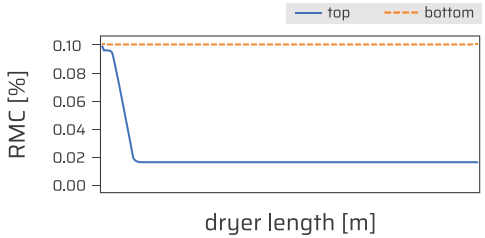
Length inside dryer
Up to 30 m***

* other widths on request
** depends on used material parameters
*** based on company own simulation program

In-depth process knowledge required for effective dryer design

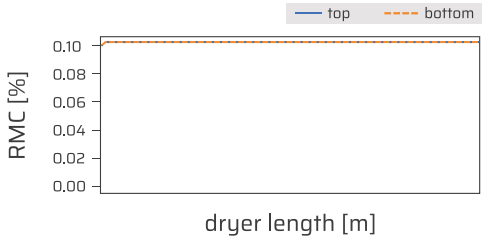
An increase of the dew point of process air from **-40°C to -25°C**, showed significant impact on the content of residual moisture.

Put your trust in **efficiency**, **precision**, and **reliability**!



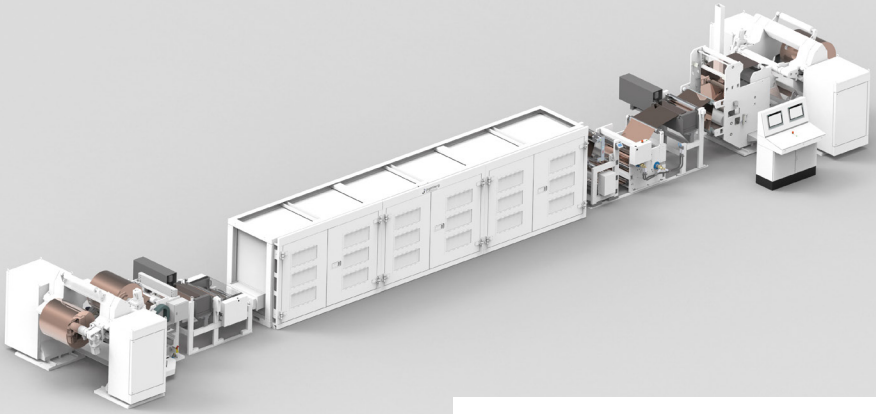
Temperature (T): 23°C
Relative humidity (RF): 0.5%
Dew point (Tdp): -40°C

At a dew point of -40°C, the **residual moisture decreases** to 200 ppm



Temperatur (T): 23°C
Relative humidity (RF): 3.0%
Dew point (Tdp): -25°C

At a dew point of -25°C, the **residual moisture remains constant** at 1,000 ppm



R2R Post Drying
Key features

- **Non-stop production** – efficient, seemless, continuous workflow, without reduction of speed.
- **Single or turret winder** – adapted to customer needs.
- **Inline measuring system** – precise quality monitoring.
- **Embedded quality systems** – tailored to customer demands, available for testing with customer materials.
- **Pulling station** – with cooling / chill roller for optimal processing.
- **Center Position Controll** – for low tension material handling.

This innovation has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101104094.

jagenberg
Converting Solutions

Integrate.Converting.Competences.

If you are interested or have any questions about R2R Post Drying, please contact

Astrid Lemcke
Sales Manager
astrid.lemcke@jagenberg-converting.com
+49 176 17345090

Jagenberg Converting Solutions GmbH
+49 2871 2412-500
sales-energy@jagenberg-converting.com
www.jagenberg-converting.com

jagenberg
Group

Create.Future.Together.