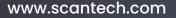


BATTERY INDUSTRIES ONLINE MEASUREMENT AND CONTROL SOLUTION

ALUMINUM & COPPER FOIL LINES ANODE & CATHODE COATING LINES ANODE & CATHODE CALENDERING LINES BATTERY SEPARATOR FILM LINES







FRANCE HEADQUARTERS

Founded in 1992, SCANTECH was first to introduce low-energy x-ray transmission technology for the measurement of lightweight materials. Today, over 1,000 scanners are installed annually around the world for many types of production lines, including all types of extruded films, nonwoven fibers, metals, papers, lamination and coatings processes.

SCANTECH continues to lead the world-wide market for X-ray, laser, infrared, and microwave online measurement and control systems, as well as visual inspection tools thanks to our focus on innovation. We are dedicated to expanding and perfecting our offer to include groundbreaking technology, ergonomic UI, and automatic calibration.

SCANTECH is headquartered in France, with fully-owned subsidiaries in China (Guangzhou), the USA, Germany, Italy, South Korea, India, Malaysia, and Taiwan. All core components, such as sensors and electronic circuit boards, are designed in France and the entire production process is supervised by the R&D departement based in the headquarter in France. To ensure product quality and customer satisfaction, each subsidiary provides comprehensive customer support, and installation and maintenance services locally. With multiple assembly centers around the world, SCANTECH can supply the same highquality products to domestic customers, and provide timely service and a complete stock of spare parts.

Each center is in full accordance with the quality standards of SCANTECH's production plant in France.

ORLINE R AND CO

SYSTEMS INSTALLED PER YEAR

8000 SYSTEMS INSTALLED WORLDWIDE



SCAN ME AND DISCOVER MORE ABOUT SCANTECH

MEASUREMENT NTROL



ONLINE MEASUREMENT AND CONTROL SOLUTION

ALUMINUM & COPPER FOIL LINES



MEASUREMENT SYSTEM

1 SCANNER: Thickness measurement

HMI

• 1 SUPERVISION station with the FLEXSCAN interface

OPC-UA connection

LOCATION

- On the slitter line for copper foil
- On the lamination line for aluminum foil

FEATURES

SCANNER

Type: O-Frame

Width: from 500 to 2000mm

MEASUREMENT

THICKNESS MEASUREMENT

- Technology: X-RAY transmission sensor
- \bullet Product range: 1 to 100 μm
- Accuracy: Better than 0.1%

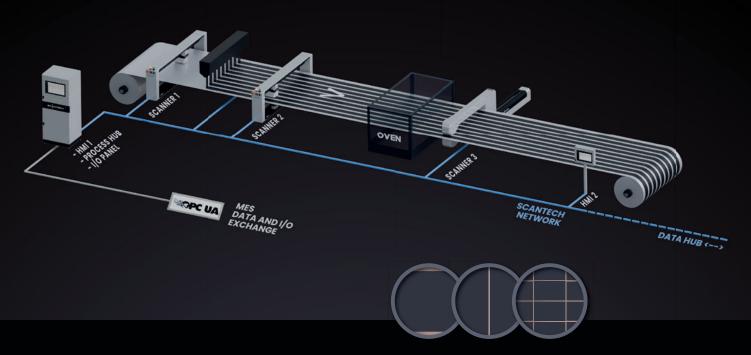




ONLINE MEASUREMENT AND CONTROL SOLUTION

ANODE & CATHODE COATING LINES

R&D, PILOT AND PRODUCTION LINES



SINGLE COATING LINE

3 SCANNERS using our advanced SAME SPOT technology

Scanner 1: Substrate measurement Scanner 2: Wet coating measurement Scanner 3: Dry coating measurement Optional: Density measurement

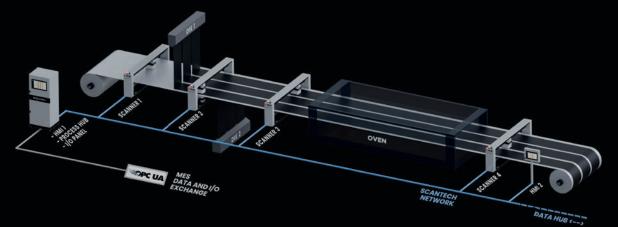
HMIs

• 3 SUPERVISION stations with the FLEXSCAN interface

- 2 HMIs dedicated to the coating stations
- I full-line HMI inside the control room
- OPC-UA connection

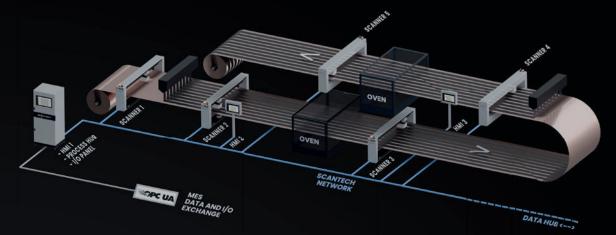
SIMULTANEOUS COATING LINE

4 SCANNERS using our advanced SAME SPOT technology



TANDEM COATING LINE

5 SCANNERS using our advanced SAME SPOT technology



FEATURES

SCANNERS

Type: O-Frame and/or C-Frame

• Up to 1500mm for anodes and cathodes

MEASUREMENTS

WET / DRY COATING BASIS WEIGHT MEASUREMENT

- Technology: autocalibrated transmission sensor
- Product range: 1 to 500g/m2
- High edge detection resolution
- Repeatability: Better than 0.1%
- Autocalibration: ± 1% of absolute value
- "Bunny ears" profile visualization

OPTIONAL

DRY THICKNESS MEASUREMENT

- Technology: optical sensor
- \bullet Product range: 1 to 3000 μm
- Accuracy: ± 1µm

DENSITY MEASUREMENT

Technology: optical sensor + autocalibrated transmission sensor



ONLINE MEASUREMENT AND CONTROL SOLUTION

ANODE & CATHODE CALENDERING LINES



MEASUREMENT SYSTEM

CONFIGURATION 1 Thickness after calendering

CONFIGURATION 2 Thickness before and after calendering **CONFIGURATION 3** Thickness & Density after calendering

CONFIGURATION 4 Thickness before and Thickness & Density after calendering

HMIs

• 1 SUPERVISION station with the FLEXSCAN interface

- 1 HMI next to the calender station
- OPC-UA connection

FEATURES

SCANNER

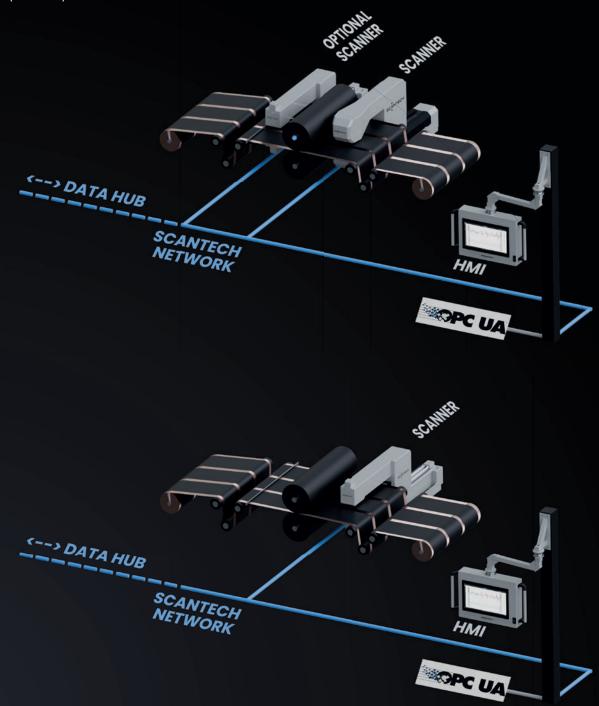
Type: C-Frame

Before and/or after the calender

MEASUREMENTS

THICKNESS + DENSITY MEASUREMENT

- Technology: oprical sensor + autocalibrated transmission sensor
- Product range: 1 to 3000µm
- Accuracy: ± 1µm for Thickness
- Repeatability: Better than 0.1%

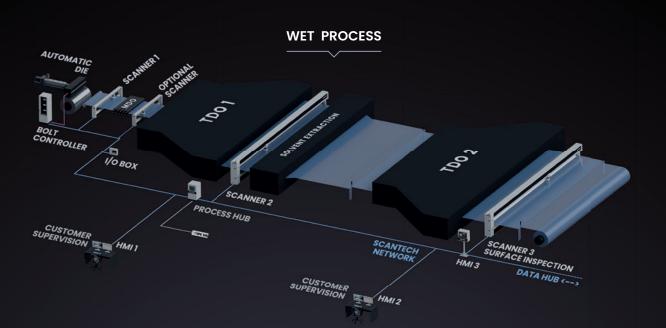




ONLINE MEASUREMENT AND CONTROL SOLUTION

BATTERY SEPARATOR FILM LINES

MEASUREMENT | CONTROL | VISUAL INSPECTION



CONTROL



AUTO MAPPING APC – Auto Profile Control



CASCADE CONTROL



TDO STRETCH PROFILE



BOLT CONTROLLER Power & Temperature Control up to 360 bolts

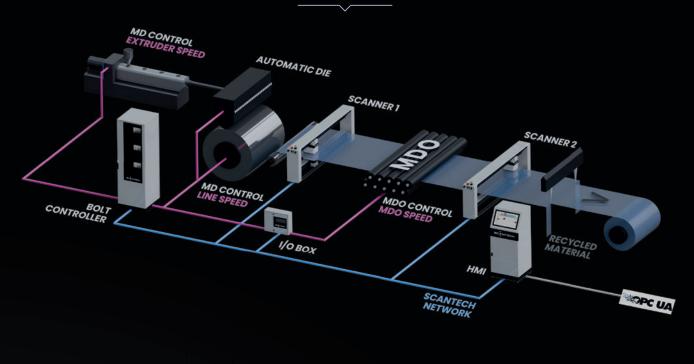


MELT FLOW MODEL



MDO CONTROL

DRY PROCESS



FEATURES



Thickness



Edge Profile



Defect Detection



Filler: CaCo₃ | TiO₂ | BaSo₄



TDO

Stretch Profile

INDUSTRY 4.0

Bolt representation and automatic die control.



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