

Paper

AUTUMN 2024

FIRST *macy*

BY ENP PUBLISHING

#11

Prospective
insight for
the global
paper industry



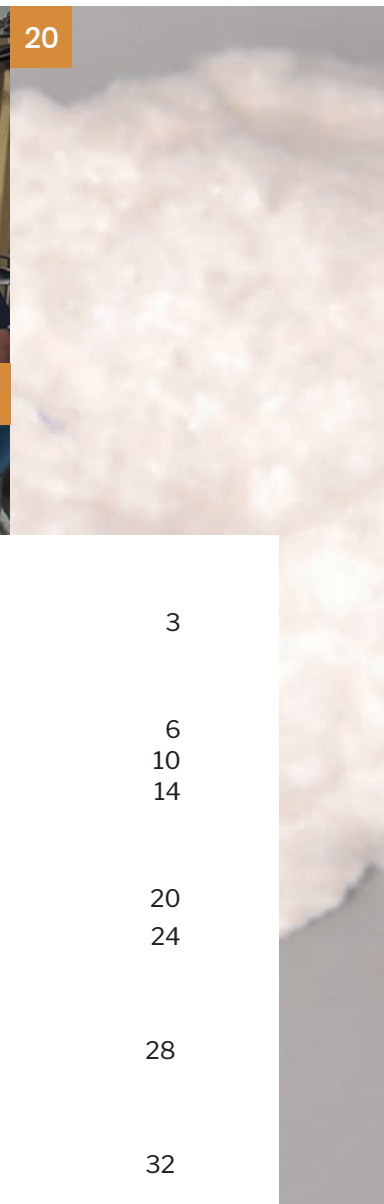
06



32



20



36

EDITORIAL

3

BUSINESS INSIGHT

- How leading companies sell sustainability 6
- Consumers see both red and green when it comes to forests 10
- Four ways process industries can break out of the talent trap 14

MARKET OUTLOOK

- Smithers outlines surging demand for fluff pulp through to 2029 20
- Performance insights in the forest products industry: trends and challenges 24

THE C-LEVEL INTERVIEWS

- Interview with Mr Javier Rivas, President Paper Mills of Smurfit Westrock Europe 28

TECH TALK

- 5 questions to Vesa Kukkamö, CEO of ACA Systems 32

MILL STORY

- Thriving in Tunisia's desert challenges - The tale of TPAP, *by Kadant* 36

TECHNICAL INSIGHT

- BioSolutions: Thermal Bonding Enhancer, *by ADM* 42
- Toward plastic-free packaging, *by Valmet* 44
- Efficient and sustainable drying solutions for coated paper, *by Ircon-Solaronics* 46
- Harnessing industrial data: Turning fragmented data into competitive edge, *by Trimble* 52

REGULATORY UPDATE

- EU Deforestation Regulation - Insights into proposed changes and latest guidance, *by CEPI* 55

CALENDAR OF EVENTS

58



5 questions to Vesa Kukkamo, CEO of ACA Systems

Vesa Kukkamo, CEO of ACA Systems, leads the company with over 20 years of experience in the paper industry. Under his leadership, ACA Systems has advanced its role as a pioneer in online measurement and process optimization technologies, driving innovation and sustainability.

1. ACA Systems has carved a niche in online measurement and process control. What are the best sellers of the company, and what is its ambition for the future?

VESA KUKKAMO: We manufacture and deliver cutting-edge performance and quality analysers for process industries, especially roll manufacturing industries. We focus on structural measurements such as air permeance and porosity, process related rheology measurement like high shear and extensional viscosity and roll quality measurements.

As an example of innovative roll quality control tool we launched 10 years ago ACA RoQ roll hardness profiler. It is a handheld device that measures the roll uniformity based on accurate hardness measurement. The cross-direction hardness profile

identifies even small defects inside the roll and helps manufacturers avoid sending problematic rolls to its clients. This year we reached 500 units delivered and so the system is widely adopted by manufacturing and converting industries. Now we have launched also ACA RoQ Inline, the automatic roll quality systems that measures each roll from production without manpower.

2. Given the current emphasis on data-driven manufacturing, how does ACA Systems ensure that the data collected through its solutions is not just accurate, but also actionable for operators and decision-makers in real time

VK: Measuring process data real-time provides many benefits for process control, but at the same time the measurement environment is much more challenging than stabilized laboratory environment. First of all we have to make sure the data collection systems are robust and stable in challenging conditions. For example our online porosity sensor ACA Permi is equipped with a dust removal ring that improves its operation. Also regular calibration and maintenance of these systems help maintain data accuracy.

Once the collected data is accurate the wide data integration tools provided by our sensors allows operators to follow trends via their own mill systems and deploy real-time analytics tools. This enables immediate insights and quick response to operational changes.

Furthermore, we provide user-friendly dashboards that present data visually. Operators and decision-makers see key metrics at a glance, with alerts for anomalies.

3. Every solution provider claims to offer improved efficiency. Can you share a recent example where ACA Systems' technology made a measurable difference for a customer, perhaps in an unexpected way?

VK: Let's make an example from barrier coating. A mill that is producing sustainable packaging material to replace plastic packaging. Process control and measurement systems were in place to secure quality and production of the base paper. However, the key element of the product performance was the water based barrier coating dispersion that is applied using high speed coating system. With the help of ACA AX-100 rheology analyzer they could implement a rheology management system to control fluctuations coming in via coating. It turned out that there were a huge optimization potential in coating quality and coating process itself. In this case we provided again a process relevant measurement solution that was not existing, and it brought the production efficiency to the next level.

4. As the industry grapples with the twin pressures of reducing environmental impact and maintaining profitability, what new approaches is ACA Systems exploring to address these concerns simultaneously?

VK: We can help the paper industry in several ways to adopt innovative approaches in process control to simultaneously reduce environmental impact and maintain profitability. As discussed before our solutions are process relevant so they act as an early warning system from any process fluctuation. They provide enhanced production efficiency and minimized downtime leading to reduced waste and optimized resource usage. Simple example is the online porosity gauge. It






is not just giving the porosity trend, but allows also to optimize refining energy, reduce grade change times and improves drainage.

5. Looking beyond the paper industry, are there technologies or innovations from other sectors that inspire ACA System's R&D, and how do you translate those ideas into solutions for your clients?

VK: Our roots are in paper industry, and we have been a trusted and innovative solution provider almost 40 years. This is a backbone that inspire us in the future. With our current clients we have found inroads to many new applications such as sustainable packaging, textile fibers and other new bioproducts. Furthermore, we have delivered our systems to battery industries and electric vehicle manufacturers. We are continuously using open innovation platforms to develop new solutions and helping customers to improve their processes and product quality. We are passionate about new things and it drives us forward!



ACA Flow WR
Water retention tester



Water retention is the ability of the coating color to hold water during and after the application process. It is a critical factor for runnability that impacts for example film formation, adhesion, drying rates, and overall coating performance.

ACA Flow WR is a modern and user-friendly analyzer for coating color water retention.

- Integrated touch screen and adjustable time / pressure
- Modern design and clever sample holder attachment / release
- Fast and accurate
- Measurement principle according to TAPPI T-701
- Traveler case

Advanced and Clever Analyzers

FOR THE PAPER AND BOARD INDUSTRIES



OPTIMISE CRUCIAL STAGES OF THE PROCESS

BASE PAPER / PROCESS QUALITY

ACA Permi – Online porosity analyzer

COATING RUNNABILITY AND QUALITY

ACA AX-100 – High shear viscosity analyzer

ACA Flow WR – Water retention analyzer

FINAL ROLL QUALITY

ACA RoQ – Handheld roll quality analyzer

ACA RoQ Inline – Automated roll quality analyzer **New innovation!**

ACA Permi Lab LP 300 – Air permeance analyzer for low porous materials. **New innovation!**



SPECIFIC PROCESS OR ROLL QUALITY ISSUES TO BE SOLVED?

Our experts are ready to help you find the right solutions to optimise your operations and enhance product quality. Contact us!

ACA
SYSTEMS



+358 13 569 911 / info@aca.fi
www.aca.fi

AAA[®]
HIGHEST CREDIT WORTHINESS
© Dun & Bradstreet 2024