

PULP PAPER & LOGISTICS

VOLUME 11 NUMBER 62

September/October 2020

**ANDRITZ: Innovative solutions
for tissue production**

Page 14



INDUSTRY NEWS

SOLENIS

HEIMBACH

Going forward in tissue with essential flexibility



To go forward and keep ahead of the game in the demanding world of tissue production you have to be able to move fast. Flexibility is now a necessity as switching grades and qualities has become the new reality in tissue production. Utilizing hybrid technology, Valmet's new range of Advantage NTT, QRT and eTAD tissue machines now have flexibility built in at their very heart and will allow you to swing between plain, textured and structured tissue products.

As well as unique flexibility, the Advantage NTT, QRT and eTAD range also gives excellent softness and high bulk using less energy and fiber per roll. Valmet Hybrids - for maximum flexibility in tissue making. Read more at valmet.com/hybrid



COMMENT

Welcome to the September-October issue of Pulp, Paper & Logistics.

As the dreaded Covid-19 rears its ugly head again we have seen more industry events moved or postponed to next year. One such show is MIAC, which has been held at Lucca in Italy every October, but is postponed to 21-23 April 2021. Go to www.miacrestart.com for the details of the show, which has been renamed MIAC Restart.

The disruption we have endured has in one way been beneficial at the office of Pulp, Paper & Logistics. We have been using some of the downtime for planning and expansion, so it is a pleasure to announce the launch of Green Packaging International magazine at the end of November 2020. The focus will be on packaging with the lowest impact on the environment, the highest recycling rates and the strongest sustainability message.

In the coming November-December issue of Pulp, Paper & Logistics we will be featuring logistics & product handling, which includes roll handling, machine clothing (including rolls, wires, felts, belts, ropes and blades); mill energy systems and portable hand-held communications technology. Editorial submissions should be with us no later than 13 November.

Vince Maynard, Publisher

IN THIS ISSUE



INDUSTRY NEWS

2



LOGISTICS

10



SOLENIS

Opportunities offered by the crisis

12



ANDRITZ

Innovative solutions for tissue production

14



HEIMBACH

On the trail of moisture

16



DIALIGHT

Light is a safety issue

20



PRODUCTS & SERVICES

22



PROJECTS & CONTRACTS

25



PEOPLE

32

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PULP PAPER & LOGISTICS

Compostability certifications for Metsä Board paperboards

Paperboards made by Metsä Board have achieved DIN CERTCO certificates in industrial compostability complying with DIN EN 13432 and ASTM D6400 standards.

In addition, Metsä Board's Prime FBB EB eco-barrier paperboard also holds a home compostability certificate.

"In order to enhance circular economy our main target is that our paperboards are recycled after use. But recycling is not always possible – the paperboard may be contaminated due to its contents and cannot be recycled. In this instance compostability is the next best alternative," says



Metsä Board paperboards hold industrial compostability certifications

Helena Moring-Vepsäläinen, product safety manager at Metsä Board.

DIN EN 13432 standard refers

to 'Requirements for Packaging Recoverable through Composting and Biodegradation'. ASTM D 6400 certification covers the

'Standard Specification for Labelling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities. The certified paperboards include all Metsä Board grades without a PE coating.

Metsä Board's paperboards, folding boxboards and white kraftliners, are all made of pure fresh fibres sourced from sustainably managed Northern European forests. They are safe for direct food contact and free from fluorochemicals. Metsä Board paperboards are lightweight and strong, contributing to a reduction of the carbon footprint throughout the whole chain.

Closure of newsprint line being considered by Stora Enso

Stora Enso is planning to close a newsprint machine at its Hylte Mill in Sweden as part of a reorganisation that will improve competitiveness.

The reorganisation that will shut down the PM3 paper machine also includes the closure of the deinking plant (DIP).

Because the proposed closure of PM3 by the end of 2020 and the DIP by the end of the second quarter of 2021 would have an impact on 140 jobs, Stora Enso is in negotiations with employees, a process that will be concluded before any firm decision is taken, said the paper maker.

After the planned restructuring, the mill would run on 100 per cent thermomechanical pulp (TMP). Annual cost savings of €14 million are expected.



Production of formed fibre food packaging has started at Stora Enso's Hylte mill

Kati ter Horst, executive vice president of Stora Enso's paper division, explained the decision: "The decline in global newsprint demand continues due to changes in consumer behaviour, and it is not expected

to recover. This has led to global overcapacity, low operating rates, and poor profitability at the Hylte Mill.

"The planned measures would improve the competitiveness of the mill. Also, Stora Enso has

invested in the future of the site to produce formed fibre products and biocomposites."

Current newsprint capacity at the Hylte mill is 480,000 tons from the two lines, which would be reduced by 235,000 tons with the PM3 closure. Stora Enso also produces newsprint at its Langerbrugge and Sachsen mills.

The PM3 line's capacity represents 4 per cent of total European newsprint paper capacity.

- Stora Enso has started production of formed fibre food service products at the Hylte Mill. The PureFiber eco-product range is produced without plastic and per- and polyfluoroalkyl substances. The group is also investing in more formed fibre capacity in Sweden and China.



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Paper maker in Sweden claims lowest-ever carbon dioxide emissions

Lessebo Paper in Sweden reports that its production of pulp and paper emitted 22kg of carbon dioxide (CO₂) per tonne of finished product in 2019, making it one of the lowest CO₂ emitters in the paper industry.

As part of Lessebo's 2020 environmental declaration, the figure is said to be 96 per cent less than the average graphical paper producer.

Committed to developing high-performance and environmentally responsible papers and boards for the international market, Lessebo says that the environmental figures of 2019 mark a progression in its strong focus on the responsible management of emissions to both air and water.

The figures are accredited by an external auditor and in accordance with current standards. On



Lessebo Paper's mill in Sweden: lowest carbon emissions in the industry claimed

average, a producer of equivalent products emits 616kg CO₂ per metric ton of finished paper, according to European Association of Graphic Paper Producers. The 22kg figure from Lessebo is 96 per cent less than the average.

The paper maker has been reducing its CO₂ emissions for

many years: since 2013 its CO₂ emissions have been cut by more than 76 per cent.

Says Eric Sigurdsson, chief executive of Lessebo Paper: "This development clearly shows that our environmental strategy is successful. We improve our operations on a continuous basis,

and we support this with certified management systems of ISO 9001:2015 and ISO 14001:2015."

Located in the inland region of Småland, the Lessebo site has been making paper since 1693. Its three machines have capacity for an estimated 60,000 tons a year.

Saica enters North America's corrugated market

Spain-based recycled corrugated paper manufacturer Saica is investing almost \$72 million in the construction of its first mill in North America.

Work on the 350,000 sqft facility at the City of Hamilton's Enterprise Park in Cincinnati, Ohio, started in September and is expected to take 18 months to complete.

Saica Group has four business areas: Saica Natur, managing waste and environmental services; Saica Paper, which produces recycled paper for making corrugated board; Saica Pack, the third-largest European producer of corrugated packaging; and Saica Flex, producing flexible packaging.



Saica has started construction of its first plant in the US for making corrugated products

"Saica Group's know-how and experience in the production of lighter-weight containerboard and corrugated packaging will

bring high performance packaging and reduced materials use to the US market. Since the beginning, we have been looking at different

locations in the Midwest," said Ramon Alejandro, chairman of Saica Group.

The mill will employ around 64 staff. "For a Spanish-based company like Saica to choose the Cincinnati region as its first entry into the US is a compliment to the region and a testament to the work being done by the City of Hamilton to ready sites for future investment," said Brandon Simmons, vice president of project management at REDI Cincinnati.

Saica Group is one of the largest European producers of recycled paper for corrugated board, with 10,000 employees and yearly output of 3.5 million of short tons of paper.



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Metsä Board's Kyro mill celebrates its 150th anniversary

Metsä Board's Kyro mill in Finland celebrates its 150th anniversary this year, 2020.

It was originally built as a wood grinding plant alongside the Kyröskoski river in 1870, since when it has manufactured market wood pulp, groundwood, sawn timber, various papers and paperboard for international markets.

With 150 employees, the mill currently produces high-quality folding boxboard for Metsä Board, part of Metsä Group. Its BM1 board machine, with a trim width of 3.3m and a speed of 660 metres per minute, has a yearly capacity of 190,000 tons per year. Grammage of board is in the range



The Kyro mill in Finland, which annually produces up to 190,000 tons of folding boxboard, is 150 years old this year

of 195-380g/sqm.

"Kyro people are proud of their mill," says mill manager Petri Huiko. "Our staff have always lived with changes and challenging times have been overcome by

working together. People commit themselves to the mill for a long time, with families often having several generations involved."

This has positively influenced the kind of mill Kyro is today.

"Continued development is key to the success, efficiency and production quality of our paperboards and we are proud to continue to develop Kyro as generations before us have done," added Huiko.

Last year, Metsä Board Kyro began manufacturing a new plastic free eco-barrier board for food and food service packaging and introduced artificial intelligence (AI) to its quality control.

Furthermore, the mill's board machine finishing area is being modernised in a €20 million investment. The rebuild includes a new reeler, a winder and the renewal of the reel broke handling system, all of which is scheduled to start during the autumn of 2021.

Westrock to supply paper-based collars for Coke cans

Cans of Coca-Cola are to be launched in multipacks using paperboard-based rings designed by WestRock.

The recyclable CanCollar will be rolled out in the Balearic Islands of Spain in November 2020 by Coca-Cola European Partners (CCEP) as part of moves to remove all unnecessary or hard to recycle plastic from its portfolio.

The PEFC-certified collating rings will replace plastic, saving more than 18 tonnes of the material a year.

CCEP says it has invested €2.6 million in its Barcelona plant to support the initiative. The bottler adds that the installation of WestRock's CanCollar Fortuna manufacturing equipment will enable multipack cans to be grouped with a process that does not require the use of glue or



Coca-Cola will be saving 18 tons of plastics a year by using paper-based collars

adhesives.

Joe Franses, sustainability chief at CCEP, said: "The agreement with WestRock exemplifies our clear commitment to reduce plastic in our secondary packaging. By the end of 2020, we will have removed more than 4,000 tonnes of hard-to-recycle plastic from our secondary packaging in Western Europe. It's through collaborating on innovative packaging solutions like CanCollar that we are able to do this."

A.Celli Paper buys PMT Italia to reinforce its position in the sector

PMT Italia srl, which manufactures machinery for the tissue and paper industry, has been bought by A.Celli Paper spa.

PMT Italia, based in Pinerolo, was established in 2000 but shares a long tradition of expertise and success as a former subsidiary of Beloit Corporation. For more than 50 years, it was the European headquarters of the American group.

With its acquisition, PMT Italia's range of products will benefit from synergies with the organisation and know-how of A.Celli Paper said the Lucca-based firm which is part of the Italia Technology Alliance.

The technologies developed for packaging papers, cardboard and printing will be available to the

group's worldwide customers, and the customer service division will be restructured and strengthened, in order to guarantee continuity and reliability to customers operating with former-Beloit and PMT machines.

"With this operation, carried out in a period of general uncertainty, we want to demonstrate the desire to guarantee cutting-edge technologies and timely assistance for Italian and foreign companies operating in the strategic sector of paper and tissue," said Mauro Celli, owner of Italia Technology Alliance.

"Maintaining this heritage in Italy is an important step that will bring benefit to the entire paper supply chain, including the district of Lucca."

Collaboration focuses on coated paper packaging that's recyclable

Recycled paper maker DS Smith and Aquapak, which develops biodegradable polymers, are collaborating to provide sustainable fibre-based packaging that will replace hard-to-recycle products made from combined materials such as cardboard and plastic.

After a period of pilot trials, focusing on both performance and recyclability, the partnership will now begin developing practical applications. This includes a range of fibre-based packaging where traditional plastic films are replaced with Aquapak's Hydropol, a biodegradable and water-soluble polymer that will help to improve the recycling process.

UK-based DS Smith's exclusive



DS Smith's Nick Thompson: "Our aims are aligned in bringing a much greater circularity to recyclable packaging products"

partnership with Aquapak, also UK based, will support its long-term sustainability targets which include the manufacture of 100 per cent reusable or recyclable packaging by 2025. With a focus on tackling hard-to-recycle items, the adoption of this biodegradable technology will allow for less contamination in the

recycling and paper-making process.

Nick Thompson, materials development director for DS Smith commented: "Aquapak's technological advances in novel barrier chemistries combined with our broad range of packaging applications can help us work together to solve many of the most pressing packaging recyclability issues. The impact will be immediate, and our aims are aligned in bringing a much greater circularity to recyclable packaging products."

Mark Lapping, chief executive of Aquapak Polymers added: "It is exciting to see opportunities for



Aquapak's Mark Lapping: "Opportunities for our innovative polymer"

our innovative polymer coming to fruition through our partnership with DS Smith. Both organisations are committed to eliminating plastic-pollution at the source and by working together, we can help speed up the roll out of recyclable, biodegradable packaging that is designed for the circular economy as well as being safe for land and sea."

Poland's PMP Group bought by Valmet

Valmet has agreed to buy Poland's PMP Group, which supplies process technologies and services for tissue, board and paper machines, focusing on small and medium-sized tissue machines and board and paper machine rebuilds worldwide.

The €64 million deal was expected to be completed by the beginning of October and is complemented by a conditional and capped earn-out component. Founded more than 165 years ago, PMT's sales in 2019 were €70m. Most of its 650 employees are based in Jelenia Góra and Świecie in Poland, Changzhou in China, South Beloit in USA and Lucca in Italy.

"The acquisition will bring two companies with different offerings and customer segments

together. PMP's technology and services portfolio for small and medium-sized tissue, board and paper machines will be a very good complement to Valmet's current paper technology and services for wide and fast machines and rebuilds," said Jari Vähäpesola, president of Valmet's paper business.

Miroslaw Pietraszek, group president of PMP, added: "Joining to Valmet opens a new chapter in PMP's rich history in the pulp and paper industry and represents a huge leap forward for our future development. I am convinced that the joint technological, production and human resources in our key markets will allow us to reach new heights and ultimately benefit the advancement of the entire paper industry."



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DS Smith Packaging continues its drive to improve safety

For the third consecutive year, DS Smith has recorded the lowest accident frequency rate in the industry, demonstrating a continuing downward trend over the past nine years, and providing evidence of its strong commitment to a safe work environment.

The records were amongst industry statistics released by the European Federation of Corrugated Board Manufacturers (FEFCO).

Marco Maguina, head of safety at DS Smith Packaging, commented: "The safety of our

people is our top priority. This result shows that our Vision Zero strategy is embedded across the organisation, which has been achieved through strong engagement among our leaders and our incredible teams across the company. We thank every single employee for always prioritising safety, and we are determined to continue our journey towards our Vision Zero."

DS Smith says it aims to foster a culture where both health and safety are an integral part of its business activities and launched its 'Vision Zero', a strategy

towards zero harm, more than two years ago. The 'Vision Zero' strategy consists of four key areas: leadership; engagement; systems and processes; and culture. Each of these has a goal with annual activities and performance indicators. In its last fiscal year, DS Smith achieved an eight per cent like-for-like reduction in its Accident Frequency Rate and eight per cent reduction in its Lost Time Accidents.

The focus on health and safety has also been at the forefront of DS Smith response during the Covid-19 pandemic.

The company has managed to maintain all its production sites operational, following national government and health guidelines. At all times the priority has been the health and wellbeing of all people, while continuing to serve customers and to support the communities where it operates.

FEFCO, a non-profit organisation based in Brussels, monitors the accident frequency rate across the corrugated packaging industry. The latest statistics are based on 2019 data and supplied by FEFCO's 568 member companies.

Good year so far for corrugated in the US

The corrugated business in North America had a better first six months of the year than expected, says analyst Mark Wilde at BMO Capital Markets.

Volumes were up 1.6 per cent to the end of July, despite the coronavirus pandemic and a recession in the business.

Drivers for the improvement were 'unprecedented' levels of fiscal stimulus, widespread pantry stocking and a boom in ecommerce shipments, said Wilde.

"At the same time, domestic pricing has also been remarkably stable thanks to good demand and widespread production cuts by many producers," he said.

During the second quarter, producers were faced with a sharp, but short-lived, spike in old corrugated container (OCC) costs. As collection rates slipped

during the pandemic in the three months to the end of June, the price of OCC averaged \$83/ton.

Margins were also strong with many of the leading converters posting more than 19 per cent. "Never has the industry performed this well in the face of such a challenging backdrop," commented Wilde.

The pandemic appears to have accelerated ecommerce trends," he said. "An increasing pool of consumers appears to be relying on the ecommerce channel for a growing array of goods. In BMO's recent industry survey, several respondents noted that booming ecommerce demand has led large producers like International Paper and WestRock to farm-out shorter run business to independent converters and smaller integrators."

Mondi buys cement bag lines in Egypt to strengthen Middle East market



Two paper bag lines have been bought by Mondri from cement producers in Egypt.

The production lines, at Helwan Cement Company and InterCement Sacs, will increase Mondri's capacity by about 60-80 million bags a year and strengthens its position in the Middle East bag market, particularly in supporting suppliers to the construction industry.

The deal includes the exclusive supply of paper bags to the two cement producers.

Claudio Fedalto, operations chief at Mondri Paper Bags, said:

Mondri's facilities in Egypt, where more cement bag capacity has been acquired

"These collaborations will offer Helwan and InterCement access to our latest innovations, industry expertise and our strong plant network and customer service in the Middle East. Thanks to Mondri's vertical integration, our partners will further benefit from our high quality kraft paper."

Mondri Paper Bags, a segment of Austria-based Mondri Group, is a leading producer of industrial paper bags selling more than five billion a year.

Paperboard and packaging innovation accelerated by Metsä Board

Metsä Board has started up operations in its newly-built Excellence Centre at the bio-economy site in Äänekoski, Finland, to meet growing demand for more sustainable packaging.

The centre, with what is described as cutting-edge technology devoted to R&D, packaging design and paperboard and packaging performance, aims to accelerate material and packaging innovation and provide a collaboration platform for customers and technology partners globally.

Mika Joukio, chief executive of Metsä Board, which is part of Metsä Group, said: "As the amount of packaging continues to grow, new, sustainable solutions are needed to replace fossil-based materials and ensure circularity. The Excellence Centre concept enables paperboard and packaging solutions that look at the entire value chain, and not just at its separate parts. With the material knowhow, competence



Metsä Board's new Excellence Centre includes R&D facilities, a packaging design studio, a customer feedback centre and a laboratory

and tools now available, we can optimise performance throughout the packaging lifecycle."

The Excellence Centre, which covers 1,500 square metres, includes R&D facilities, a packaging design studio, a customer feedback centre and a state-of-the-art laboratory providing more than 100 different measurement methods and analytics. The centre

also features a virtual store and a computer-aided engineering (CAE) tool to allow sophisticated simulation and analysis of packaging performance.

"Renewable and recyclable fresh fibre paperboard can be utilised for packaging in many ways. Fibre-based packaging has a lot to offer, and together with our partners and the new Excellence Centre, we

are able to explore the possibilities even more comprehensively. I am excited about the opportunities this will bring for today and the future," added Joukio.

Äänekoski's bioeconomy ecosystem includes a next-generation bioproduct mill, a paperboard mill, plywood mill, the Pro Nemus visitor centre, and a textile fibre demo plant.

LCA tool launched by Ceperi will counter greenwash

Following a decision by the European Commission to leverage the Product Environmental Footprint (PEF) method to distinguish between valid green claims and green washing, the European paper industry body Ceperi, together with its member companies has developed a life-cycle analysis (LCA) tool based on the Intermediate Paper Product PEF Category Rules (PEFCR).

The PEF tool enables any Ceperi

member company to calculate product LCAs and validate their green claims within the Green Deal context. The tool has been designed for both LCA experts as well as users less familiar with the LCA methodologies. Having access to an LCA tool makes it significantly easier for small and medium size enterprises to compute complex Product Environmental Footprints for their products, says Ceperi.

MIAC 2020 renamed MIAC Restart for April 2021

The MIAC paper industry exhibition that was to have been held in Italy in October 2020 has been postponed to 21-23 April 2021 and renamed MIAC Restart.

The organiser Edipap SRL has informed all exhibitors of the decision, which is due to the necessary responses related to the ongoing coronavirus

pandemic.

The organisers have said that the decision followed consultations with companies in the paper industry.

Arrangements have been made for exhibitors to transfer to the April event, and for participation in the annual MIAC show which will be held from 13-15 October 2021.

Are ginaliners the future of long-haul transportation?

Capable of shipping up to 20 tons more cargo in just one trip, ginaliners promise less congestion and lower emissions, but they're also facing strong criticism. So, what is the outlook in Europe for these giants, asks Veronika Dullova

Gigaliners, eurocombis, megatrucks, super lorries, or Long Heavy Vehicles (LHVs) – these are all names of large goods vehicles with a total length of up to 25.25 m and a maximum permissible weight of up to 60 tons.

At first glance, it might seem that replacing three conventional trucks for two LHVs is a no-brainer. Moreover, since even longer trailer combinations successfully circulate in Australia or parts of North America.

However, the situation from other continents can't simply be emulated in Europe, where urban density and highway traffic is much higher, the terrain is less flat, and roads are twistier. With these conditions, it's reasonable to ask whether and under what circumstances ginaliners prove worth investing in.

The results are already in Gigaliners were already approved in the Netherlands, Sweden, Finland, and Denmark after which Germany's officials expressed



Sydic Truck Navigation, a GPS navigation app for fleets and truckers

interest in them too, having high hopes about decreasing highway traffic.

Germany ran an extensive five-year test before finally allowing gigaliners on its roads in 2017. The Federal Highway Research Institute (BASt), which ran the tests, concluded that allowing megatrucks would result in up to 25 per cent fuel savings.

Positive effects on pollution are also hard to ignore. For example, Luís Simões, who introduced

gigaliners in the Iberian market in 2014 and currently has ten gigaliners in circulation in Portugal and Spain, claims that they have been able to achieve a 30 per cent reduction in carbon dioxide emissions per ton transported.

So what's the hold-up?

On the flip side, making truck transport cheaper and thereby more attractive might increase demand that could oppose long-term efforts to move more

transport from roads to rail, thus creating a bad impact on the environment. This has been by far the biggest criticism coming from the experts. However, there's already a counter argument to this claim, for example in Sustainable Logistics: Responses to a Global Challenge:

"(...) the advantages of railroad transport can only on long distances fully compensate for time and cost-related downsides. If this condition is met, railroad transport is second to none – not even longer LGVs. Still, if this prerequisite cannot be met, truck length does not play a role."

The argument is simple – cheaper road transport doesn't necessarily have to cause a major redistribution of the use of different modes of transport. More data supporting any side of the debate is still required and the



Megatrucks could result in up to 25 per cent fuel savings

effect on rail transport is yet to be sufficiently examined. In any case, looking at the larger picture has so far motivated governments to act with caution.

Preparing for the future

So are we going to see more gigaliners on European roads? By looking at past developments, it seems that, despite the initial hesitation, change is the only way forward. Since past trials have yielded very promising results

in terms of cost-efficiency and there's also ongoing pressure to lower fuel emissions, more and more countries might allow gigaliners on their roads, perhaps with restrictions.

For fleets and drivers, this means addressing two things: safety and navigating on a new, much more restricted road network, including complications with rest stop planning.

Since the newest release 20.4.0. of Sydic Truck Navigation, a GPS

navigation app for fleets and truckers, Sydic allows users to select LHV-approved roads as a preference in the settings, enabling them to avoid unnecessary complications on the road, and thereby increase safety and the on-time delivery of their cargos.

The new feature uses a smart algorithm, which automatically calculates the most efficient route, especially for heavy trucks, preferring LHV-compliant highways and certain primary

roads for vehicles with larger turning radius. What is clever about the feature is that it incorporates several variables, including vehicle parameters, to offer the fastest, safest, and most convenient route for large trucks, avoiding unnecessary detours.

More information from Sydic as, Twin City C, Mlynské Nivy 16, 821 09 Bratislava, Slovak Republic. Tel: 421 917 973 655. Email: zkacanova@sydic.com Website: www.sydic.com

More investment for Swedish logistics technology specialist

Adnavem, a Sweden-based logistics technology company that manages the use of worldwide container shipments with advanced software, has attracted a multi-million investment in funding to fuel its expansion in to new markets.

The SaaS-enabled marketplace for container freight makes transporters more accessible and shipping processes more automated and fully transparent.

The company closed a \$4m

investment round led by Runa Capital, with Spintop Ventures joining as a new investor. Adnavem says that the investment will provide additional capital to continue transforming and disrupting the transport and logistics industry.

The two new investors are Runa Capital, a global fund focusing on software companies, with bases in Palo Alto, Berlin, Paris, London and Moscow, and Spintop Ventures, a Swedish venture fund

that focuses on software-based technology companies in the Nordic region.

Andreas Wramsmyr, founder and chief executive of Adnavem, commented: "We feel tremendous confidence in our new, and existing investors. Together they bring a mix of what we need to achieve our vision, to become the world's most desired and transparent marketplace for global container shipping.

"The new investors bring entrepreneurship, global business networks, experience in digital business models and a willingness to challenge old standards with new technology."

Mattias Sundström, co-founder and technology chief at Adnavem, added: "New technology and digitised data give us possibilities that were not available a few years back. Today we can take control of the full transportation chain in a whole new way. We can work directly with the logistics suppliers removing intermediaries which is what transport buyers in the new digital world demand.

"At Adnavem we challenge parts

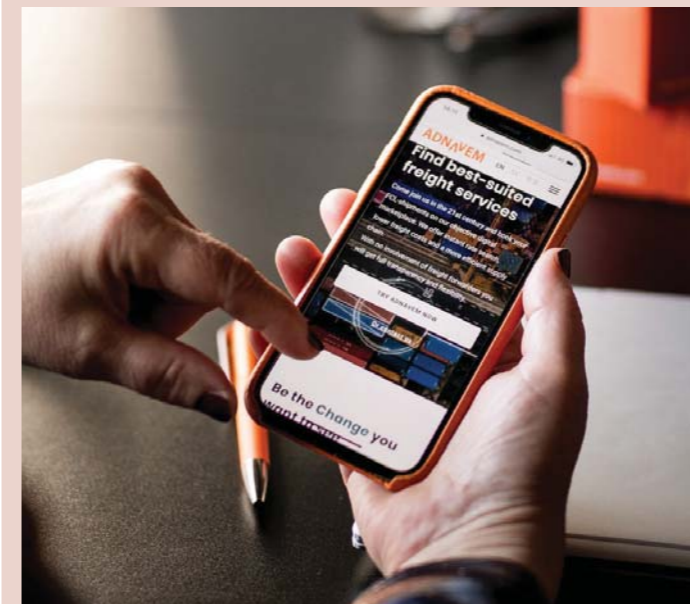


Andreas Wramsmyr, chief executive of Adnavem

of the freight forwarders work; we do believe that there is room for different types of operators in the massive logistics market."



Mattias Sundström, co-founder and tech chief of Adnavem



Opportunities offered by the crisis

As consumption patterns have changed during the pandemic so tissue and towel manufacturers should respond to exploit the new dynamics, says Richard Cho*

The unfolding coronavirus crisis of the past several months has led to more unpredictability than any of us could have imagined. Stay-at-home orders, social distancing guidelines and panic buying by consumers have created major irregularities and consumption patterns, not least in tissue and towel market dynamics.

These challenges also present a great opportunity to help tissue and towel producers adapt and respond to these sudden changes.

Pushing for productivity

As consumers around the world actively stockpiled supplies and household staple items, tissue makers were pushed to maximise production. In some countries, bath tissue sales increased by more than 50 per cent during the early months of the pandemic.

Though machine utilisation rates spiked to nearly 100 per cent, there were still difficulties meeting demand. For Solenis, being part of a larger effort to help customers increase output through higher production efficiency was an opportunity to transform our expertise and capabilities into tangible benefits for our customers and, ultimately, for consumers who rely on their products every day.

Our teams partnered with tissue makers across the globe to help optimise wet-end process and coating stability to improve productivity and paper quality. These efforts have helped multiple customers achieve record machine speeds to meet the unexpected



Stay-at-home orders, social distancing guidelines and consumer panic buying have created major irregularities in tissue and towel market dynamics and consumption patterns

surge in demand.

Beyond great chemistry and applications, many of our customers have also leveraged the Solenis OPTIX Applied Intelligence adaptive analytics platform to optimise their papermaking processes and meet quality targets. We have documented successes in reducing off-spec tissue production by helping customers significantly improve wet tensile target adherence and reduce variability.

Managing fibre supply challenges

Tissue made from recovered fibre accounts for approximately 30

per cent of global production.

Over the past few months, the recovered paper market has experienced extreme volatility. An unprecedented surge in tissue and packaging board demand, combined with reductions in office wastepaper and old corrugated cardboard availability, has tightened supply.

This has forced some tissue makers to switch from higher quality office waste to lower quality alternatives, which can result in lower strength and increased wet-end contamination. We have collaborated with a number of these tissue manufacturers, helping them

evaluate and modify their dry-strength and contaminant control solutions to overcome these challenges.

An increasing number of tissue makers are also producing tissue made from non-wood alternative fibre, such as bamboo, which is not related to the pandemic as such, but it is exacerbating some of the other challenges affecting the industry. Non-wood tissue accounts for approximately 10 per cent of global tissue production. Though more common right now in the Asia Pacific market, non-wood tissue will continue to expand across the other regions. In fact, several recently launched

direct-to-consumer tissue brands are selling 100 per cent bamboo tissue outside of Asia.

This type of tissue is seen as a more environmentally friendly and sustainable alternative. However, non-wood pulps typically contain higher levels of contaminants, such as silica and fines, which create Yankee coating challenges related to hardness, dusting and abrasiveness. Solenis has partnered with tissue makers to address challenges related to improving softness/hand feel, machine runnability and extending doctor blade life.

Preparing for new paper towel opportunities

In the wake of the global pandemic, there is a renewed emphasis on hand hygiene that has resulted in more hand washing and hand drying occasions. Many establishments are also replacing hot and jet air dryers

with paper towel dispensers in public restrooms. In addition, experts recommend cleaning and disinfecting high-touch surfaces at least once a day to minimise the risk of Covid-19 transmission through surface contact. All of these trends are driving an increase in paper towel usage and pushing manufacturers to enhance their product requirements.

Solenis is well-positioned to help tissue makers produce more – and higher quality – paper towels. Our extended network of field professionals and application experts collaborate directly with paper producers to customise solutions to their unique needs. At the same time, our global manufacturing footprint allows us to deliver a variety of wet- and dry-strength products efficiently and cost-effectively to any mill, anywhere in the world. Our additives have enabled towel producers in all regions

to enhance product quality in the areas of wet strength (for improved durability when used with disinfectants/cleaners), absorbency and scrubbability (to ensure the towel can clean a wider surface area).

The new normal

Post-Covid-19, the world is likely to be operating very differently. Suppliers must evolve as much as the customers they serve, which is why Solenis is actively working to enhance, extend and redefine our capabilities to align with the changing world. We have an exciting pipeline of new activities planned for the next 12 months and look forward to helping producers navigate through these tumultuous times.

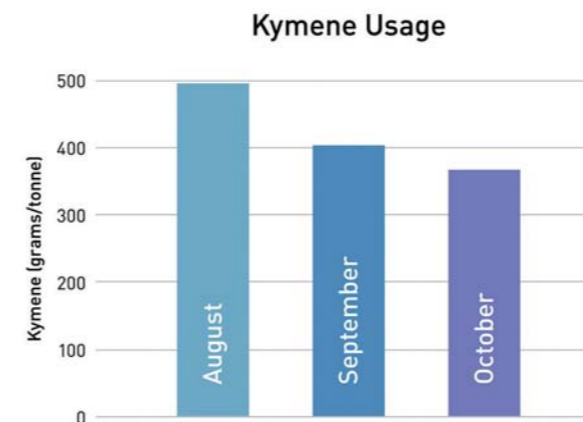
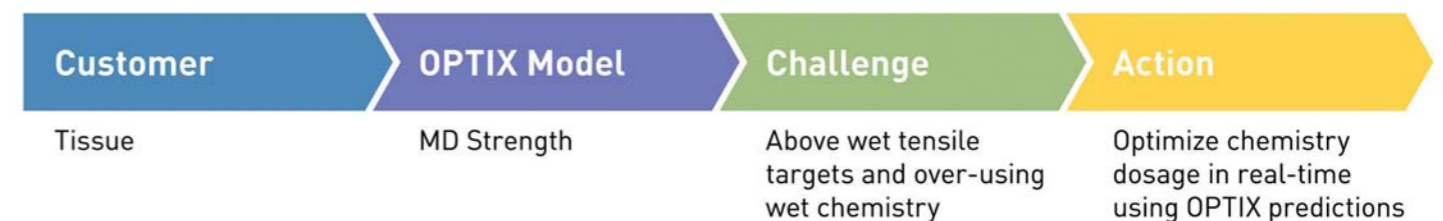
* Richard Cho is global marketing director for Solenis Tissue & Towel, based at Wilmington, Delaware, which



Richard Cho is global marketing director for Solenis Tissue & Towel

is a producer of speciality chemicals for water-intensive industries, including the pulp, paper, oil and gas, petroleum refining, chemical processing, mining, biorefining, power and municipal markets. He is responsible for developing the global strategy, driving the innovation pipeline and leading digital communication.

Optimise Chemistry (Kymene™)



Using OPTIX predictions to make process decisions led to

20%
reduction in
Kymene usage

Solenis has helped tissue makers optimise wet-end process and coating stability to improve productivity and paper quality, leading to record machine speeds to meet the unexpected surge in demand

Innovative solutions for tissue production



ANDRITZ Papillon refiner with a cylindrically-shaped refining zone

With refinements in new technology, communications and networking, tissue manufacturers have the means to both optimise and increase the output of their operations. A group of key executives from ANDRITZ were asked their views on how this has come about. PPL reports

The tissue market continues to grow globally, and is a dynamic sector within the paper industry. ANDRITZ is a major supplier across the industry, from stock preparation to reel, and from conventional tissue machines through to the latest technology for premium quality products.

ANDRITZ offerings to the tissue industry go from strength to strength as innovations developed

at the PrimeLineTIAC R&D centre come into operation, such as the Papillon refiner for stock preparation, the PrimeLineTEX tissue machine for textured products, and Metris Digital Solutions which are set to revolutionise production efficiencies at tissue mills.

We spoke to Klaus Blechinger, vice president of tissue; Günter Offenbacher, director of sales for tissue and drying; Peter Clewes, vice president for fibre preparation, recycled fibre and PMA Systems; and Harald Kraschowetz, senior sales manager for fibre preparation, recycled

fibre and PMA Systems.

Q: Can you comment on the tissue market as a whole from the ANDRITZ point of view? For instance, what regions are the most dynamic?

A: The world tissue market is still growing in line with the forecasts. China is active,

however there is a clear direction change towards the installation of smaller and thus more flexible production units rather than the big machines as installed over the last years.

We also expect the tissue market in South America to grow as well as strong development in Eastern Europe. In total, the investment dynamics have slowed down in comparison to recent years, but there is still potential for almost all market areas.

In North America, and a little more reluctantly in Europe, the trend towards premium products continues, and we expect that to remain into the future.

Interestingly we see in South America and China tendencies to consider the production of higher quality grades as well. This demand for higher quality is being satisfied with new technologies, which, from the energy usage point of view, are reasonably close to conventional tissue.

Q: ANDRITZ has had some success in China, what do you put this down to?

A: ANDRITZ was one of the first European suppliers to bring advanced tissue machine technology to China, for example with new machines for Hengan and APP. Secondly, ANDRITZ has extensive local capabilities in our workshop in Foshan which have been strongly enhanced over the last years in order to fulfil the request for local manufacturing and backed up by ANDRITZ global quality management.

Moreover, key components can now also be manufactured successfully in China according to highest ANDRITZ quality standards for the global market, for example Yankee cylinders can be made at the Yankee manufacturing and Service centre in Foshan. Last, but not least, having a strong local service organization in China is a decisive factor for the majority of our customers in this region.

Q: What are customers demanding now in terms of raw material savings? How is ANDRITZ responding to those demands?

A: There is a clear trend for reducing the use of long fibres and increasing the percentage of short fibres used for tissue

production. In some regions, short fibres are used for the complete product range.

It is important that refining processes are optimised, for instance by the use of the ANDRITZ Papillon refiner, which definitely provides for the lowest energy consumption when compared with other refiner types.

Further energy saving potential is given by the ANDRITZ ShortFlowConcept by reducing the number and volume of tanks, which results in less agitating and pumping energy requirements as well as lower investment costs.

Q: Can you comment on the different types of fibre that ANDRITZ tissue lines are suited for?

A: Stock preparation lines are suitable for all kind of fibres. Beside the typical wood fibres, ANDRITZ has good operational experience on some of our commercial machines with bagasse pulp and bamboo fiber, both bleached and unbleached.

Further to this our stock preparation research centre at Graz in Austria, as well as our commercial-size mechanical pulping pilot facility 'R&D Center Springfield' in Ohio, USA, have vast knowledge and extensive data for almost all existing fibres, including almost all annual fibres. Finally all these fibres can be tested in our Tissue Innovation and Application Center (TIAC) on a full-scale pilot tissue machine, in order to identify the impact on operational efficiency, product data and paper quality.

Q: Can you describe what ANDRITZ can supply in terms of complete lines? And for what products?

A: ANDRITZ can supply complete turn-key production lines

from bale handling to reel, and, if needed, also rewinding and roll handling. We offer all technologies including complementary air and energy systems, sophisticated automation and electrification solutions, complete life-cycle services as well as best-in class tissue machine clothings.

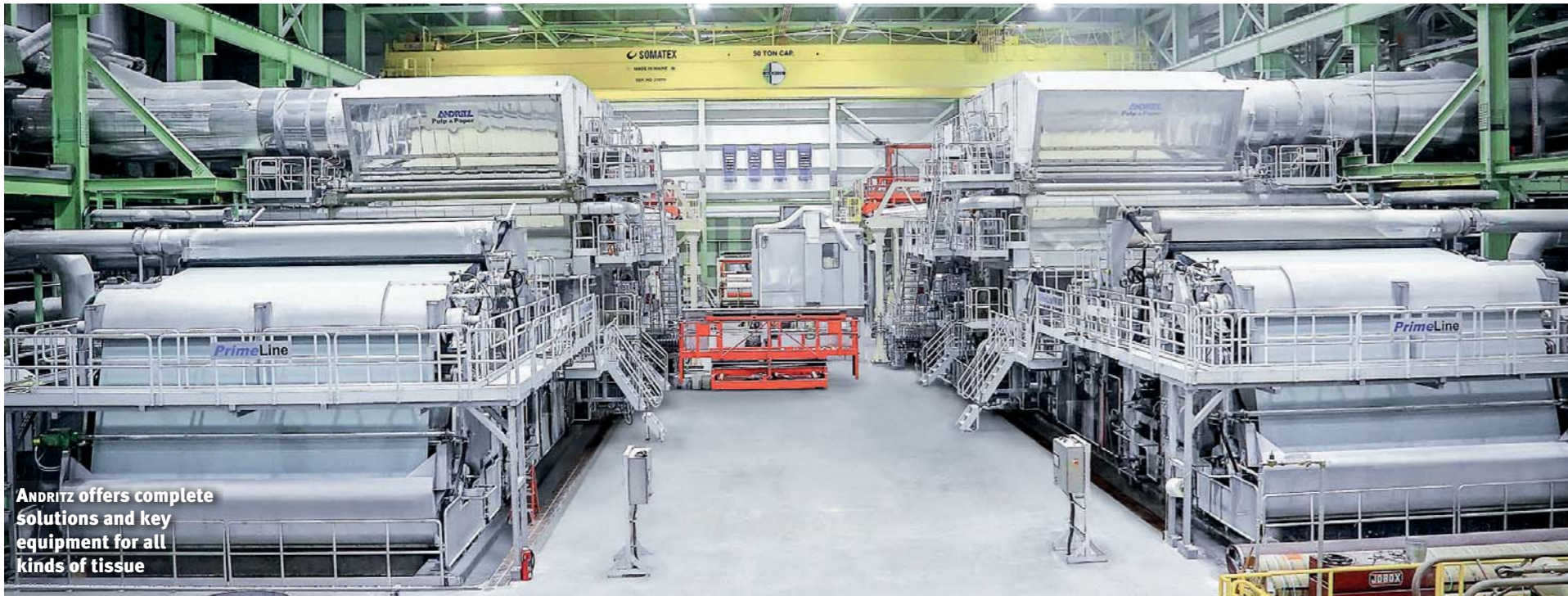
Our equipment such as pulpers, refiners, screens, cleaners, headboxes, shoe presses, Yankees and hoods are manufactured in ANDRITZ own workshops.

In addition to our turnkey solutions we offer also an advanced Metris Portfolio helping our customers in the digital transformation of their tissue production line. This includes the Metris UX platform, Metris OPP and much more.

Q: Can you also describe what ANDRITZ provides in terms of back up and service to customers?

A: Apart from commissioning and start up assistance as well as optimisation after start-up on site, ANDRITZ can provide dedicated remote support. From our Metris Performance Center in Graz we can fully support the operators on site, optimize the customers' plant, adjust and change settings. The Metris Performance centre can take over all functions of the customers control room and can remotely operate all equipment if needed.

Our Metris OPP (Optimization of Process Performance) services represent a clear advantage for tissue producers to maximize efficiencies across their mills. These services are accompanied and secured by cyber security solutions, artificial intelligence, preventive and predictive maintenance services, as well as many other services. ▶



ANDRITZ offers complete solutions and key equipment for all kinds of tissue



The Innovation and Application Center (PrimeLineTIAC) features a tissue pilot plant for the production of dry-crepe, structured, and textured tissue

Q: What sets ANDRITZ apart from other tissue line and machine suppliers?

A: ANDRITZ serves the tissue industry with a complete product range from conventional tissue, across intermediate technology right through to the high-end premium TAD machines.

For all these technologies we can offer extensive R&D work and specific product development for certain market areas, furnish, etc. in our PrimeLineTIAC.

Various technologies are also available for energy saving solutions, for example our ShortFlow system, double dilution approach flow, shoe press for post press dryness increase, steel Yankees for efficient drying, steam generator heat recovery systems, re-evaporation and co-generation plants. We offer complete support throughout all projects, right up to full production and beyond.

Q: Can you talk about the recent acquisitions that ANDRITZ has made; Novimpianti and Xerium in particular? Can you tell us what advantages those two companies

bring to your customers?

A: With the acquisition of Novimpianti ANDRITZ has completed its product range for air and energy systems and brought in additional expertise and service and optimisation support for our customers. Also R&D work in this area now has a strong focus.

Xerium is one of the best known

providers of consumables in the paper industry, including roll covers, forming fabrics, felts and shoe press belts. Xerium also has a comprehensive network and excellent customer support solutions.

Q: What are the key innovations and R&D have you been working

on at the PrimeLineTIAC that your customers would be keen to know about?

A: PrimeLineTEX has been the main focus recently. With this intermediate technology ANDRITZ has developed a competitive tissue machine for premium grades that enables a lower fiber input – particularly when

compared to dry crepe – and less energy consumption in comparison to TAD.

Q: In your experience is IIoT and the use of Big Data via Metris technologies making a difference to production efficiencies? Will Metris applications be important for tissue producers in the future?

A: Metris technologies are our answer to support the digital transformation. Metris OPP for example has been successfully used in many pulp productions plants since over a decade now. The implementation of Metris OPP provides remarkable results in

terms of savings and operational improvements. We expect the same excellent results for paper and tissue machines in the very near future. A strong service and customer support is of utmost importance. The Metris Performance Center

features various applications for a perfect global customer service and support by providing remote solutions, real-time communication and data analytics. This means ANDRITZ is able to expand the service activities for papermakers around the world by putting an expert virtually in the mill's control room whenever needed.

Q: What does the future hold for tissue producers when it comes to the very best in technology from ANDRITZ?

A: Besides optimising and increasing the efficiency of dry crepe installations and on the new technology of the textured tissue, ANDRITZ will still focus strongly on premium technology. In order to make this technology feasible for a broader market area, our focus will be to reduce the energy input significantly. The ideas and innovations are already in place, and our pilot plant offers the great possibility to test them extensively.



ANDRITZ Novimpianti – the specialist for air and energy systems for the tissue industry



The latest innovation from ANDRITZ is the PrimeLineTEX tissue machine for the production of textured tissue, and was extensively tested at the pilot plant

On the trail of moisture

Thermographic measurements using imagery and data are able to identify where too much moisture remains as the edge of a paper web. It's a process used by Heimbach's TASK team. PPL reports

The coronavirus pandemic has certainly taught us a lot, but has also allowed us to re-discover what is tried and tested. Just think for a moment about travel and the scenes in airports and at train stations on the news. One detail is shown again and again: the thermal imaging camera.

This tool has been around for many years, but in the current situation is of particular importance. This is mainly due to the fact that a thermographic camera measures at lightning speed and without contact. Heimbach's TASK team is not fighting a pandemic, of course, but uses thermography to investigate moisture problems in the paper web.

Fault analysis during operation

If the edge area of the sheet is suddenly too wet, those responsible quickly start to sweat.



One of Heimbach's TASK team carries out a thermographic measure on a paper making line

This is because the origins are usually difficult to identify. So how can you locate the reason and eliminate the cause without incurring major production losses? To overcome this difficult challenge Heimbach uses thermographic measurements to record temperatures without contact and to display the results visually. The heat differences that can be determined provide reliable information concerning

the point at which moisture content deviates from target. For this, of course, not only the right equipment is needed, which consists of an infra-red camera and special software. What is needed above all is qualified personnel to analyse and interpret the recorded data using extensive application experience and technical know-how.

How does thermography work?

Thermography is a non-contact measurement procedure. With this method, the camera measures the infra-red radiation emitted by an object, for example the paper web or the dryer fabric. These recordings reflect the temperatures that are transferred from the drying cylinder to the paper web. The temperature differences must be taken from either the sheet or the dryer fabric, as dryer cylinders are smooth and highly reflective. Thermographic measurement is unable to provide

meaningful results when applied to surfaces that reflect more strongly than they emit.

In the case of dryer cylinders then, surface temperature would have to be determined by contact thermometers. It is also difficult for thermal imaging cameras to measure in the forming and press sections, due to difficulties in detecting high and low temperatures prior to the first dryer cylinder as fibres and water still have the same temperatures at this point.

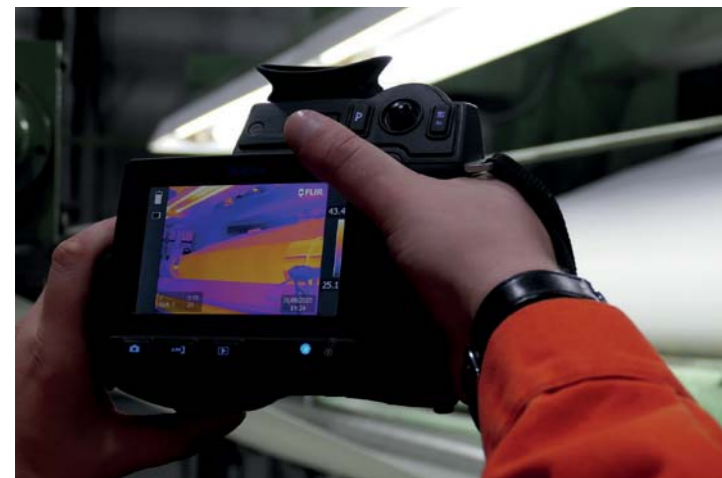
You could say then, that the thermographic camera only becomes really 'hot' in the dryer section. In turn, the software makes it possible to display thermal deviations clearly and in colour.

A practical example

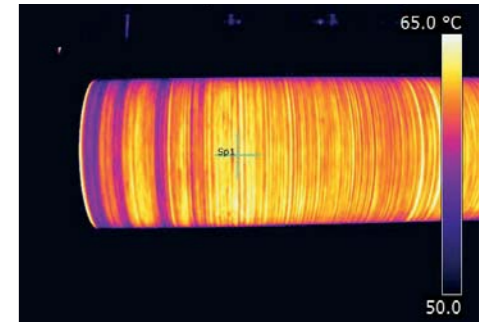
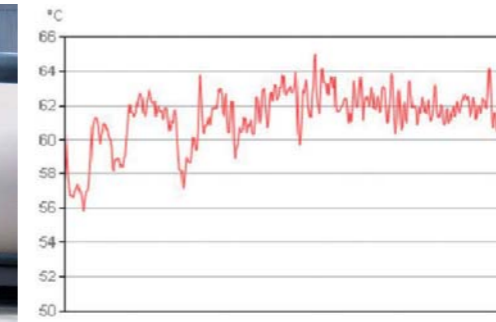
Heimbach's TASK team measures temperature differences across the paper web on site and can thus detect moisture differences in the width of the sheet. It can be said, in principle, that the higher the temperature difference, the greater the moisture difference at the measured point.

A customer complained of wet edges on the drive side of his paper machine. The resultant problems were more frequent sheet breaks and potential production losses. Internally the problem was suspected to lie in the dryer section.

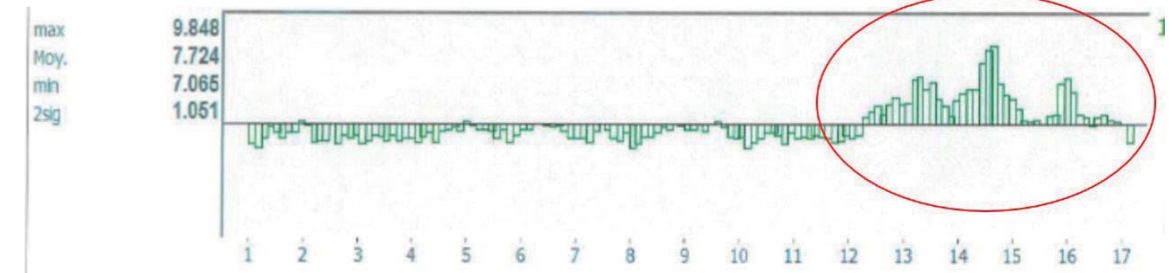
Before a thermographic measurement can be taken, the steam box must be turned off 24 hours beforehand: otherwise, the



The thermographic camera measures the infra-red radiation emitted by an object and displays it as an image



Right: the CD moisture profile before the reel along with (above, and above right) the digital image and thermograph showing moisture at the edge



paper sheet would be too hot to allow differentiated measurement and temperature differences could therefore no longer be localised. On site only the moisture bar had to be switched off.

The TASK experts took the first pictures at the reel. It is here that experience tells uneven moisture is of the greatest interest to customers as it actually goes on

sale or is further processed. Then it went towards the press section, frame by frame.

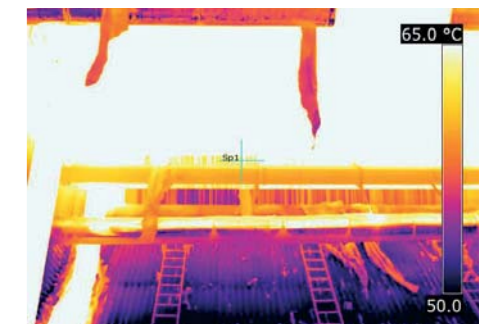
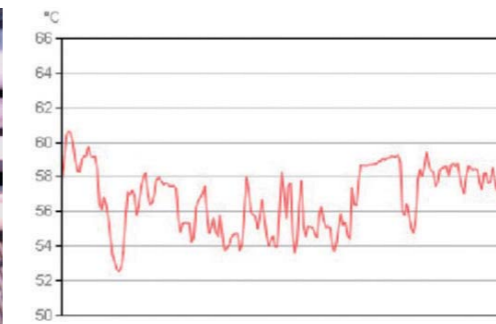
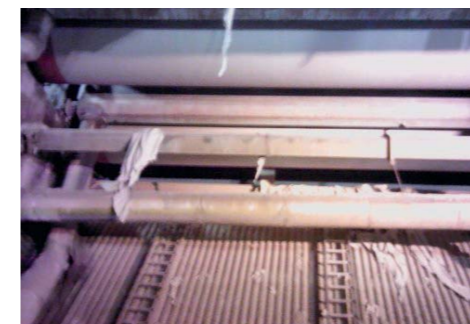
Finding a solution through a process of elimination

During the evaluation, it was found that the wet edge was clearly visible on recordings made at the reel. This then led like a red thread through to the first

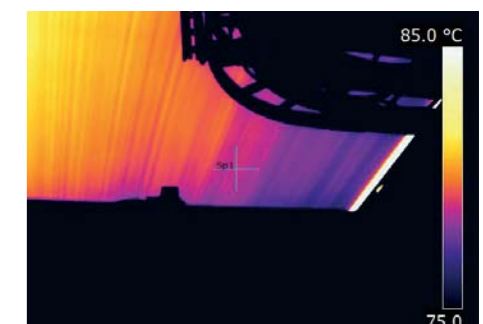
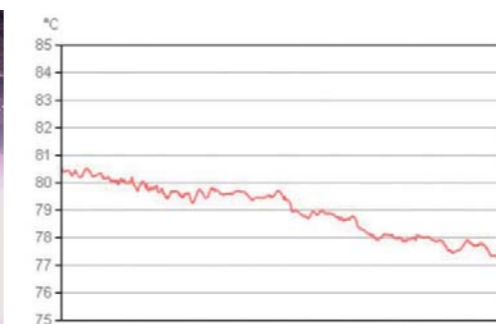
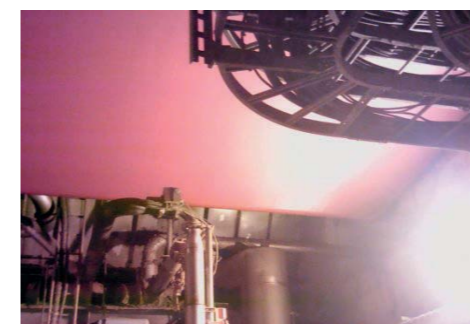
drying group. It was therefore clear that the fault was no longer in the dryers but in the press section. That is why a nip profile measurement was immediately ordered after the thermographic work. And the result was that some pressure pistons in the drive side edge area of the shoe were not working as required. The pressure required for effective

dewatering was insufficient here.

The conclusion therefore is that due to the thermographic measurement, the dryer section could be excluded as a possible cause of the problem, and a further measurement from TASK quickly and successfully localised the problem so that production was able to run at an optimum level.



Digital image (above) of the 1st dryer group, the measurements (above centre) and the thermograph



Digital image (above) of the 8th dryer group along with the moisture measurements and the thermograph

Light is a safety issue



The adoption of modern industrial LED lighting can lead to lower operating costs, but another benefit is better safety, says Luis Ramirez*

Lighting is a critical safety factor in wood, pulp and paper facilities, but it's often not given the attention it deserves for its role in preventing accidents and injuries. Many facilities default to installing the most affordable options like high-pressure sodium or metal halide fixtures. While this might save money up front, it often results in a huge long-term cost, both in terms of ongoing maintenance and the risk to employees' safety.

Pulp and paper mills are notoriously harsh environments with conditions that create imminent danger: potentially explosive airborne particles and chemical vapours; excessive equipment noise that forces workers to rely on visual cues for safety; and slip, trip, fall hazards and moving objects such as

conveyors and saws.

Inadequate lighting contributes to all of these risks, resulting in some 346,600 injuries and 401 fatalities in the industry over the last 10 years. In addition to the devastating toll this has had on employees and their families, these incidents have cost companies nearly \$12.62 billion

Staff at Kimberly-Clark's mill at Johor in Malaysia discovered that LED lamps dramatically improve visibility

in losses (ref 1), much of which could have been avoided with a comparatively small investment in better lighting to improve visibility.

Modern industrial-grade LED lighting has proven to be a safer and much more affordable long-term lighting solution. Here's why:

- **Improved visibility and colour rendering.** Conventional High-Pressure Sodium (HPS) or Metal Halide (MH) fixtures have a low colour temperature and a 60-70 colour rendering index (CRI), which makes for poor visibility and difficulty in distinguishing colours, such as those on warning signs and electrical wiring.

This not only makes it difficult for workers to spot hazards around but also puts them at risk for misinterpreting color-coded warnings. LED fixtures, on the other hand, produce a bright, near-daylight quality of white light with a CRI typically in the 80s or 90s (with daylight at 100). As the staff at Kimberly-Clark's mill at Johor in Malaysia discovered, this dramatically improves visibility (ref 2), enables workers to detect and avoid hazards more quickly (ref 3), and makes the work environment more comfortable for employees.

- **Resistance to dust and combustible particles.** Airborne particles are a constant danger in wood processing and paper production. Because HPS and MH fixtures produce excessive heat, this combines with accumulation of dust on the fixture to cause overheating (resulting in premature fixture failure) or fire. If particles infiltrate the fixture during maintenance, it can cause an explosion. In contrast, hazardous location certified industrial LED fixtures produce far less ambient heat, which makes the risk of overheating or fire from dust and debris build-up a non-issue.

As the team at Koehler Paper Group in Kehl, Germany also learned, the lower operating temperature also eliminates the problem of discolouration and colour variation from dust accumulation on the lens.

Koehler also discovered that, as sealed fixtures with no catastrophic end-of-life failure, LEDs also eliminated the risk of parts falling into the production line, contaminating products or causing a fire hazard.



Corrosion on conventional lamps reduces illumination and runs the risk of fires and maintenance that is unnecessary with LEDs

- **Enhanced worker alertness.** Bright, white lighting has been proven to aid alertness, especially during evening or overnight hours. In 24/7 operations, this can be a tremendous safety enhancement to combat worker fatigue that lowers reaction time and contributes to accidents and injuries (ref 4).

In fact, unlike the dull colour of conventional fixtures that can lower mood and energy levels (ref 4), the crisp, white light of LED fixtures has been proven to increase alertness and reduce fatigue by up to five times (ref 5), helping workers to be more aware of their surroundings, think more clearly and react faster in the face of danger.

- **Reduced lighting maintenance.** In the high-vibration environment

of paper production, conventional lighting requires near constant bulb and fixture changes. Because this work must be performed at high elevation, often above production equipment, this puts workers at

serious risk of falling or electrical accidents. Not to mention, a single HPS bulb, for example, contains enough toxic mercury to poison an entire classroom of children (ref 6).

When a bulb breaks during maintenance (a frequent occurrence), it directly exposes those workers to acute mercury poisoning. Switching to LED fixtures almost eliminates lighting maintenance for up to 10 years or more.

That means no more frequent high-elevation work, less electrical shock potential and zero risk of exposure to toxic mercury, all of which adds up to a much lower risk of accident and injury for workers (ref 7).

Many companies bristle at the initial cost of investing in modern,

state-of-the-art LED lighting when there are so many cheaper alternatives available. However, the reality is that upgrading to industrial LED technology is a practical and economical way to drastically improve workplace safety in pulp and paper mills that creates direct cost savings in the long run.

In addition to its superior durability and energy efficiency, which saves on maintenance and electricity consumption, LED lighting has the potential to dramatically reduce the number, severity and high cost of workplace accidents by creating a safer, more comfortable work environment.

* Luis Ramirez is the chief operations officer at UK-based Dialight, responsible for global operations, including manufacturing; supply chain, planning and logistics; quality, warranty and technical services.

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Complete redesign for Toscotec rewinder range

Toscotec has launched a new range of Optima rewinders following a complete redesign. The machines are said to preserve the bulk and softness of the parent reels and increase winding performance, thereby increasing productivity.



Eight of Toscotec's updated Optima rewinders have been sold

The unwinding stands feature a compensation system for out-of-round parent reels and a Center Wind Assist (CWA) control, which consists of a combination of belt driven and centre drive system, which reduces the pressure applied on the paper by the belts of the unwinding stands. Toscotec says the system reduces the generation of dust and the installed power, which is shared between the belt and the CWA through a motor torque sharing design.

A web tensioning system avoids elongation loss throughout the rewinder. This is achieved by continuously and precisely controlling the speed of the drive motors, also during machine acceleration and deceleration, so as to carefully guide the paper down to the rewinding station, while avoiding stretching it.

The rewinding section features

an automatic nip control system, operating through the load cells installed on the rider roll and the core chucks, which send continuous feedback to the control system, so that the actual thickness and bulk of the wound reel is detected and adjusted in real time.

As a result, bulk loss is guaranteed to be less than 3 per

cent and the elongation loss below 2 units.

The Optima rewinder line can be equipped with a fully automated shaft puller, featuring compact design for easy transportation and installation in limited space, and optimum alignment between the wound reel and the puller.

Eight of the rewinders have already been sold in Europe, North America and Asia, including single and double width machines. CAS Paper Mill in Thailand, Paloma in Slovenia, Cartiera Confolone in Italy and Essel in Turkey are among the paper makers that have bought the rewinders as part of turnkey projects.

More information from Marco Dalle Piagge, sales director, Toscotec Tissue division, email: marco.dallepiagge@toscotec.com

Analyse more health data for better paper machine performance

Detailed insights into the health of drive systems in paper making machines, enabling improvements in runnability and reliability, a reduction in sheet breaks and an improvement in paper quality is claimed for a new ABB Ability digital package.



An understanding the health of drive systems means that the root cause of any paper machine problem is more easily resolved

Paper Machine Drives Performance is said to be the only continuous monitoring, drive-specific digital service that leverages a digital twin to better model and evaluate system drive control performance.

Applying an advanced calculation engine to critical system data permits near real-time performance monitoring for web tension, speed control, draw and load share. This in turn enables drive system control optimization,

faster troubleshooting and more informed asset decisions.

The system also provides advance warnings of potential failures and maintenance alerts,

which enable mills to undertake predictive maintenance, reducing unplanned downtime and higher maintenance costs.

"Customers are always seeking

better ways to understand their drive system health while efficiently identifying the root cause of any issues," said Sanath Kumar, global product manager for Paper Machine Drives at ABB.

"Our new solution is the only available offering that specifically monitors paper machine drive control performance to provide near real-time detail on performance status, plus predictive alerts and root cause insights to optimize control and leverage predictive maintenance strategies."

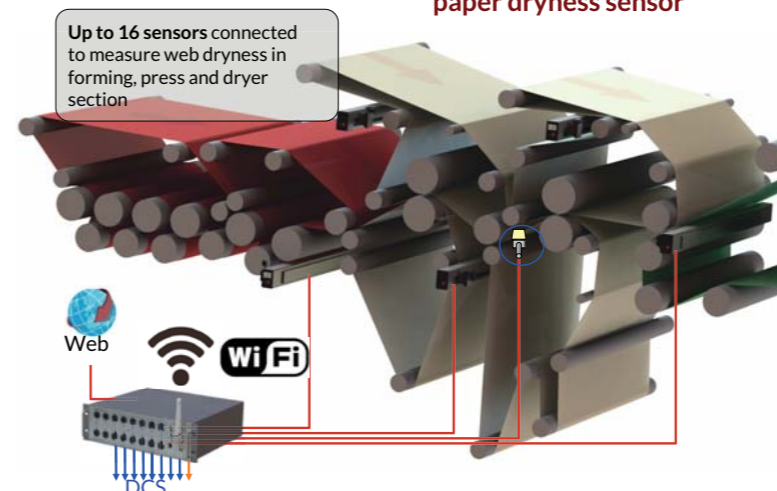
Removing the need for manual data collection, Paper Machine Drives Performance uses the ABB Ability platform to collect and analyse a volume of data that would otherwise be unachievable, it is claimed.

Stop collecting paper samples! SmartScan™ measures paper dryness 24/7, safely.



EPIC™ control unit

SmartScan™ on line paper dryness sensor



Up to 16 sensors connected to measure web dryness in forming, press and dryer section

Improve your press section efficiency! SmartScan™ contactless sensor accurately measures paper web dryness after the press section 24 hours a day, 7 days a week.

Using a proprietary microwave technology, it is developed to overcome the typical limits of the NIR (near-infrared) sensors.

SmartScan™ is available both for fixed point positions or traversing web scan.

To save hundred of thousands of Euros in energy costs, stop collecting samples, choose the safe accuracy of SmartScan™ technology.



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Artificial intelligence identifies patterns in paper machine data

Speciality chemical supplier Solenis has been working with a US tissue maker to deliver continuous process improvement by using autonomous chemistry control through its secure Optix Applied Intelligence artificial intelligence (AI) platform.

Developed with ProcessMiner, a leading AI platform, the adaptive analytics system accurately learns complex variable relationships in pulp and paper manufacturing processes and yields a digital measure of product quality. Autonomous manufacturing using AI with machine learning is a means to improved product quality, optimised use of raw materials and reduced water and energy consumption.

Applied at the Baileyville mill of St Croix Tissue in Maine, Optix has enabled a closed-loop controller in conjunction with Optix quality parameter predictions to control strength chemistry autonomously to ensure the optimum chemical feed and adhere to target parameters.

"Optix has shown that it can



St Croix Tissue has successfully reduced variation in the final product using an artificial intelligence platform from Solenis

reasonably predict different lab-tested parameters," said Devin Rose, technical manager at St Croix Tissue. "We've used this prediction in a closed-loop controller and successfully reduced variation in the final product. As a result, we're excited about the value of this programme."

Launched by Solenis in 2019, the Optix platform is operational in nine paper mills in North America and Europe, with more

to come. Using AI-powered predictive analytics of key quality parameters allows for on-the-fly process improvement, real-time process insights and continuous chemical control, leading to improved adherence to targets, better product quality and substantial cost savings.

"Solenis continues to deliver innovative solutions that solve the complex problems that exist in the pulp and paper industry," said Andreas Türk, president

for Eurasia at Solenis. "Our partnership with ProcessMiner enables us to uniquely deliver the cutting-edge artificial intelligence and machine learning technology required for real-time, predictive analytics and autonomous manufacturing.

"Our latest Optix offering, autonomous chemistry optimisation, is another example of Solenis delivering the value our customers need to stay competitive."

Low-pressure glue pumps for use on core-winders

With many years of experience in supplying adhesive dispensing systems for the tissue, pulp, and paper industries, Spain's Valco Melton offers low-pressure glue pumps for use on core-winders.

The company says that the output pressures generated by the more expensive piston pumps are unnecessarily

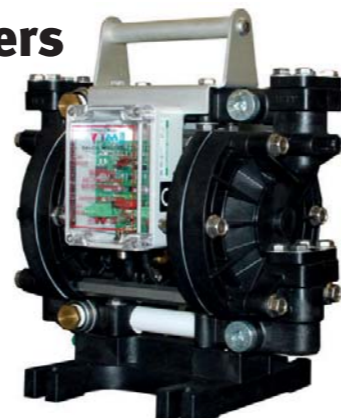
oversized for core winding. Adhesives commonly used in this process contain solids that may damage the pump seals and reduce their lifespan resulting in increased machine downtime and complex maintenance tasks.

Diaphragm pumps however are an excellent alternative to piston pumps offering numerous benefits. Low-pressure pumps

work with all kinds of adhesives with minimal wear and are said to require less maintenance resulting in a more cost-effective option.

The DD-1 diaphragm pump features an electronic-reversing mechanism that enables the pump shaft to creep slowly and avoid stroke stalling.

More information from www3.valcomelton.com



Valco Melton's DD-1 low-pressure pump

ABB supplies electrical systems to Grupo Gondi's new Monterrey mill

A complete electrical system has been supplied by ABB for the new PM7 containerboard machine being completed by Grupo Gondi in Mexico.

The largest machine of its type in the country, and among the most modern in the world, the PM7 is part of a US\$300 million investment in Papel y Empaques Monterrey (PEM).

Supplied by Voith, the machine will have a working width of 6.66 metres and a design speed of 1,200 metres per minute, producing testliner and corrugated medium from 90 to 250 grams per square metre.

The PEM mill has been built on a greenfield site and will have capacity to produce 400,000 tons of paper products a year. Start up was scheduled for September 2020.

ABB has supplied and commissioned equipment that includes switchgear, transformers, motors, drives, and automation



Mexico's largest-ever containerboard machine uses an electrical system from ABB

for the drive system with the industry's leading distributed control system, ABB Ability System 800xA.

The electrical system is said to focus on quality and efficiency. ABB will also supply a speciality instrumentation package to enable Gondi to optimise operations while maintaining low energy costs.

ABB worked with Grupo Gondi's local partner, Grupo BTO, on

the supply of the electrical and drives automation systems. This collaboration ensures the best lifecycle support for the systems long after start-up is completed, says ABB.

"Given the importance of this project, working with a reliable and experienced supplier that guaranteed meeting stringent paper machine specifications was crucial," said José Iribarne, project director at the Monterrey

Mill. "ABB also has solid resources for support and maintenance in Mexico, and we look forward to working with them to ensure ongoing success."

Grupo Gondo currently has 15 converting plants and six paper machines using recycled material shipping 650,000 tons of products a year to 190 countries. The new containerboard machine will increase capacity to more than a million tons a year.

Asia Symbol orders recovery boiler optimiser process control

Advanced process control for a recovery boiler optimising system is being supplied by Valmet to Asia Symbol (Shandong) Pulp and Paper Co in China.

The system will be installed on Asia Symbol's pulp line (PL12) recovery boiler, helping to reduce operating costs, eliminate process variations, optimise control, and improve production efficiency.

"Asia Symbol and Valmet have a long cooperation relationship. Valmet's experts listened to our needs and provided the exact solution we wanted. With Valmet's advanced process control we will achieve the best combustion efficiency and stable operation performance for this pulp line," says Wang Bin, director of the automation department at Asia Symbol.

Stock preparation line for Kookil Paper in China

Kookil Paper has ordered a stock preparation line including approach flow system, broke handling and fiber recovery from ANDRITZ for its Zhangjiagang mill in Jiangsu Province, China.

The 305 bdm/d line will process needle-bleached kraft pulp and leaf-bleached kraft pulp market pulp bales used in speciality paper for food packaging as well as photo and special printing paper.

The market pulp bales are dissolved in FibreSolve FSV pulpers, which enable highly efficient slushing at low specific energy consumption. The innovative rotor design ensures optimum impact effect of the rotor and intensive friction within the pulp itself, but without damaging the fibres, it is claimed. Four TwinFlo double disc refiners achieve superior properties such as fibre length and fibrillation.

Vinda Personal Care to install another ANDRITZ stock preparation system

Vinda Personal Care has ordered a stock preparation system to feed the four tissue machines at its Yangjiang mill in Guangdong, China with start-up planned for the third quarter of 2021.

Processing a mixture of needle bleached and leaf bleached kraft pulp and bagasse the system will produce up to 200 bdm/d.

ANDRITZ will install the complete system, with equipment for



low-consistency pulping, high-consistency (HC) refining,

approach system and broke handling.

The LC pulping system comprises a FibreSolve FSV pulper and a high-density cleaning system for optimum slushing of the raw material. To achieve optimum processing of the mixture of annual and short fibres, the customer opted for a 120 bdm/d HC refining system for the tissue production line. The combination of an ANDRITZ Pulp Screw Press and an HC refiner, type CDIPL, will

enable superior fibre properties at low energy consumption.

ANDRITZ has supplied more than 20 stock preparation systems to the Vinda Group in more than 17 years.

Vinda Personal Care (Guangdong) is one of the top four tissue producers in China and part of the Vinda Group, which provides high-quality hygiene products and services. Its key brands are Vinda, Tempo, Tork, TENA, Dr P, Libresse, VIA, Libero and Drypers.

New reeling section for Knauf Petroboard in Russia

Russia's Knauf Petroboard has ordered a new reeling section from ANDRITZ for the KM2 board machine at its mill in Kommunar. Start-up is scheduled for 2021.

The rebuild by ANDRITZ includes a new PrimeReel with new reel spools, drives and controls for maintaining even paper quality from first to last wrap on the jumbo roll. The new reel will reduce the current level of rejects and enable the use of larger roll diameters, thus resulting in less

frequent tambour changes.

The entire wet section (approach flow systems, wire section) as well as the complete electrical drive (MMD) of the KM2 was rebuilt by ANDRITZ in 2018.

The board machine – with a basis weight range from 100-320 grams per sq m, a working width of 4,260mm, and a design speed of 700 m/min – has an annual capacity of 155,000 tons for production of gypsum board made using 100 per cent waste paper as raw material.



Knauf Petroboard's new reeling machine will provide more consistent quality

Ash crystalliser added to LD Celulose pulp mill

An ash crystalliser plant is being supplied by Valmet to LD Celulose SA in Brazil. It is part of Lenzing's and Duratex's joint venture project to build a new 500,000 ton/year dissolving pulp mill in Minas Gerais state with scheduled start up in 2022.

This is in addition to Valmet's extensive technology and

automation contribution to the project announced in January.

The ash crystalliser, with a capacity for 300 tons of ash per day, will recover mill chemicals and remove non-process elements, primarily chloride and potassium, from the mill's liquor cycle.

"Our new pulp mill will have a positive socio-economic impact

throughout the region. When choosing partners for this project we have emphasised reliability, energy efficiency and best environmental practices. We chose Valmet to deliver their ash crystallisation solution because the Valmet concept will fulfil our request in the best way," says Roland Feiner, chemical recovery implementation manager

at LD Celulose.

The new dissolving pulp mill is located near the cities of Indianópolis and Araguari. With the ash treatment system, the Valmet order now includes a fibre line, a pulp drying and baling line, an evaporation plant, a white liquor plant, an ash crystallisation plant and a mill-wide automation system.

'World's most modern' packaging paper line commissioned

What is described as one of the world's most modern packaging paper machines has been commissioned at Progroup AG's Sandersdorf-Brehna mill in the Saxony-Anhalt region of Germany.

The Propapier PM3 line was built by Voith to produce 750,000 tons of testliner and corrugated medium a year with the least possible consumption of resources.

Commissioning of the line was completed on time despite the restrictions imposed by the coronavirus pandemic.

"The successful startup within the planned schedule represents an important milestone in our growth strategy," said

Maximilian Heindl, development chief at Progroup AG.

The production line comprises a BlueLine stock preparation system with a new IntensaDrum Duo drum pulper, capable of processing almost 3,000 tons of recovered paper a day. The XcelLine paper machine has a wire width of ten metres and an operating speed of 1,600 m/min. The TwinDrive double unwinder was also included in the scope of supply and increases winder capacity by up to 20 per cent enabling automated full reel changes. It is complemented by a VariFlex Performance high-performance winder.

"By deploying extra personnel and working additional day and night shifts, we were able to



The team behind the Propapier PM3 line's installation (left to right): René Bauer, project manager at Voith Paper; Peter Resvanis, project manager at Progroup AG; Maximilian Heindl, development chief at Progroup AG; and Dr Michael Trefz, project chief at Voith Paper

accelerate the work in such a way as to enable us to meet the commissioning date," says René

Bauer, project manager at Voith.

Other key innovations include a closed water loop that Voith developed in collaboration with Progroup. In this system, all water used in the paper production process is cleaned in the company's own water treatment facility using anaerobic and aerobic biological treatments and is then returned to the production process in a resource-conserving manner.

"Thanks to the integrated water treatment plant, we save about 3.75 million litres of fresh water annually. This is equivalent to the water consumption of more than 80,000 people," said Heindl. "The Eco-Management and Audit Scheme certification of the European Union verifies the sustainability of our facility."

Progroup is additionally investing around €100 million in resource-saving technologies and environmental protection.



Closed water loop: All water used in production at Progroup AG's Sandersdorf-Brehna mill is cleaned in the company's own water treatment plant and then returned to the production process

Virtual sensors and machine learning for digitised Heinzl mill

Paper manufacturer Heinzl Group is planning to digitise its mill at Laakirchen in Austria using technology provided by Voith.

The move follows the rebuilding of the mill's PM10 production line from recovered magazine paper to corrugated medium last year. "Only by consistently making the most of the possibilities and opportunities of digitalization will we be able to survive in the narrowing market in future too," said Dr Thomas Welt, chief executive at Heinzl, which currently has capacity for making 800,000 tons a year at Laakirchen. The components of the project use the latest technologies which will be used in real operating

conditions. Meeting the quality targets as cost-effectively as possible and reducing downtime due to breaks are the key objectives of the project.

Voith Paper's Dr Jürgen Abraham is enthusiastic about the cooperation with the Heinzl Group: "Seldom do you meet a customer who is so open to new methods and technologies. The Heinzl Group is not only impressed with our established digital product portfolio, but has also agreed to work on developing new digital products in collaboration with Voith to harness the enormous potential of the fourth industrial revolution."

Through the intelligent use of the existing data, it is anticipated



The digitisation of the Laakirchen mill is a 'flagship' project

that the production and value creation of the PM11 and PM10 production lines will increase and become stabilised at a high level.

Virtual sensors and model predictive controls will be combined with cloud-based innovations from the world of machine learning.

Jürgen Käser, project manager

at Voith, said: "Our OnEfficiency Strength application reliably ensures quick success for our customer. With completely new applications, such as the sheet break prevention, we may need to be a little bit more patient. In the end, it is important that each element contributes to the economic success of the project."

Sixth turnkey tissue line from Toscotec for WEPA group

An Ahead 2.2S tissue line has been ordered for WEPA's Piechowice mill in Poland from Toscotec.

The repeat turnkey project is expected to be completed in the third quarter of 2021 and follows the installation of an Ahead 2.0S machine that was commissioned in 2017.

It is the sixth tissue machine to be ordered by WEPA in addition to the numerous rebuilds Toscotec completed for the wet end and dry end sections of WEPA's existing machines.

Since 2015 Toscotec machines have been installed at WEPA mills in Lille (France) and Giershagen and Sachsen (Germany).

Recently the Giershagen mill's PM19 tissue machine achieved a speed of 2,200 m/min, setting a



WEPA's mill at Piechowice in Poland where a tissue line is being installed by Toscotec

new world record for continuous running.

The latest Ahead 2.2S machine features a 2,750mm sheet trim width and a design speed of 2,200 m/min. It will produce

more than 40,000 tons per year of premium quality tissue mainly for away-from-home markets, made of either virgin or de-inked pulp (DIP).

The Ahead 2.2S machine is

equipped with TT NextPress shoe press technology, a third-generation-design TT SYD, gas-fired hoods with several stages of energy recovery, and an in-line shaft puller at the pope reel. The machine is designed for the implementation of digital technology and advanced control systems supplied by Toscotec and Voith.

Martin Kregel, chief executive of WEPA Group said, "As in the past, we have great confidence in Toscotec and are convinced that we have the right partner with the latest technology on our side for this project. We continue to trust Toscotec for their commitment to our efficiency and product quality, their operational flexibility and their ability to fully meet our demands."

Tissue machine running at rated speed soon after start up in Russia

Just weeks after start up, a new tissue machine installed at Arkhbum Tissue Group's mill at Vorsino in the Kaluga region of Russia is reportedly running at 2,000 metres per minute, producing towel grades from virgin pulp.

The Primeline W6 tissue machine supplied by ANDRITZ has a width of 5.6m and offers grammages of 16 per sqm.

Arkhbum Tissue Group's chairman Irina Galakhova, said: "We are extremely satisfied with our products – and so are our customers. We appreciate the high quality and softness. In addition, we achieve remarkable cost savings compared to systems with conventional presses and Yankees."

The range of products made on the line includes high-quality facial, toilet, napkin, and kitchen towels using bleached hardwood and softwood pulp.



Arkhbum's new tissue machine is running at 2,000 m/min

The W6 line includes a Papillon refiner in the stock preparation plant to achieve superior fibre properties with low energy consumption. The tissue machine's steel Yankee and latest

shoe press technology enable a high drying capacity and operating flexibility. The re-evaporation system returns energy into the production process, thus offering additional savings.

ANDRITZ delivered the W6 tissue machine with a stock preparation and approach flow system, heat recovery re-evaporation system, hall ventilation and heating, automation, and electrification.

Three more rewinders for Asian Pulp and Paper Group

Three E-Wind T-200S rewinders have been purchased from Italy's A.Celli Paper for installation at the Gold Hongye Paper mill in Nantong, in the Chinese province of Jiangsu.

Gold Hongye is part of the Asian Pulp and Paper Group (APP) and the order follows more than ten years of collaboration after three A.Celli rewinders were purchased for the Xiaogan plant at the beginning of 2020.

The E-Wind shaftless tissue rewinders will be used to process mother rolls with diameter of



One of the A.Celli E-Wind rewinders installed at Gold Hongye Paper

3,000 mm and a paper width of 5.6 m, with basis weights varying

from 10.5 to 45 gsm, and with a maximum operating speed

of 1,100 metres per minute. A.Celli said it was noteworthy that two of the rewinders are equipped with unwinders with the addition of the calender as an option.

After the purchase of three E-Wind T-200S for the mill located in Xiaogan and the order for the tissue rewinders supplied in 2017 to APP Indonesia, this most recent agreement is said to definitively confirm the customer's trust and satisfaction with the services provided by A.Celli Paper and A.Celli Shanghai.

'Intelligent' drying system running well at the Montes del Plata pulp mill

A pulp drying system described by ANDRITZ as an 'intelligent solution' is now operating successfully at the Montes del Plata pulp mill at Punta Pereira in Uruguay.

The Metris DryQ system was installed in September 2019 as part of a mill-wide service agreement called Synergy, which includes remote support and local assistance by ANDRITZ experts, with the aim of boosting dryer performance and stabilizing the process.

Gabriel Machado, in charge of the Montes del Plata fibre line, says, "We have been very impressed with ANDRITZ's professional and transparent approach to the Metris DryQ project since the very beginning. The experts involved, both at the mill and remotely, support us in every aspect of drying line operations. We now have a drying line that is performing in a much more stable and efficient way. It gives us a lot of confidence to have ANDRITZ experts right with



The Metris DryQ pulp dryer is reportedly running well in Uruguay

us as we deal with any challenges that may arise."

Metris DryQ combines ANDRITZ's pulp drying expertise with the latest digital technologies and thus provides crucial support for customers in achieving their

production and sustainability targets. The Metris DryQ team analyses available plant data, compares it with data already gathered, evaluates the results based on decades of expertise and thus provides valuable

output for business intelligence, quality management and process information. These results play a vital role in increasing the efficiency of systems already installed and thus secure high drying line performance.

Four more tissue machines ordered by Hengan group in China

Four tissue machines have been ordered by Guangdong Hengan Paper Co (Hengan) for its new mill at Yunfu in the Guangdong province of China.

The machines, being supplied by ANDRITZ, are PrimeLineCompact M1600s with a design speed of 1,700 metres per minute and a working width of 3.65m.

All are equipped with a PrimeFlow step diffusor headbox,

an 18ft PrimeDry Steel Yankee together with the high-load suction pressure roll and canopy hood, along with an under-machine pulper.

The order continues a successful partnership between the two companies that started in 1998 when Hengan bought an ANDRITZ tissue machine for its mill in Changde city. Since then Hengan has installed 13

tissue machines, with the four new ones being scheduled to go into operation from the fourth quarter of 2021.

ANDRITZ says the machines will significantly reduce steam and electric power consumption in the production process and minimise operating costs, thus resulting in low maintenance costs.

Xu Lianjie, chief executive of the

Hengan Group, a manufacturer of household paper grades and feminine hygiene and baby care products, said: "Hengan and ANDRITZ have been working together successfully for more than 20 years. We have succeeded as partners and believe in a promising future because making the best tissue always starts with the best equipment."

OCC line starts up successfully at Wamat Paper in China

The first of two OCC lines, each with a capacity of 1,000 bdtm/d, supplied by ANDRITZ to Wamat Paper in the Shandong province of China, has been successfully started up.

Start-up of the second OCC line is scheduled for the end of this year. Both lines produce pulp for corrugated medium as the final product.

ANDRITZ delivered all of the equipment, from pulping to headbox screening, including a disc filter for fibre recovery.

The lines feature:

- A low-consistency pulping system, including a FibreSolve FSR pulper with flow-optimised rotor and vat for low power consumption, as well as a FibreGuard detragging system with a FibreWash Drum that



Two OCC lines have been delivered to Wamat Paper in China

removes non-disintegrated rejects early in the process.

- A special coarse screening set-up combined with cleaners

for light and heavy reject removal to provide superior stock quality and reliable separation of styrene foam. Fine screens and

fractionators are equipped with PrimeRotors to ensure efficient reduction of stickies and debris.

• A novel system also uses a smaller number of pumps, resulting in significant reductions in energy consumption.

General manager at Wamat Paper Zhang Yanjun commented: "Despite several difficulties relating to accommodation and transport as well as strictest health and safety precautions in view of the Covid-19 pandemic, ANDRITZ provided excellent start-up support and was first on site after the government permitted people from other provinces to enter our region again."

Shandong Wamat Paper was established in 2017 as a subsidiary of Shandong Century Sunshine Paper Group Co.

Clothing for start-up of Oulu Mill's BM7 line supplied by Valmet

Start-up clothing is being supplied by Valmet for Stora Enso's Oulu Mill in Finland.

The order includes forming fabrics, press felts, shoe press belts and dryer fabrics for use on the PM7 grade conversion by Valmet, which will be starting up towards the end of 2020.

"Valmet has been our main clothing supplier in Oulu for a long time," says Janne

Myllykangas, area manager BM7 and deputy project director at Stora Enso. "We are pleased to continue working together in this strategic project, too, as the performance of the fabrics and felts is crucial for end product quality and production efficiency. We have set high requirements for the technical support at the start-up and during optimization. We trust

that Valmet can meet our expectations."

Martti Heinola, director for paper machine clothing at Valmet, commented: "We are happy that Stora Enso has chosen our clothing for the start-up of BM7. All in all, the order includes 50 per cent of the forming fabrics and press felts, and 100 per cent of the dryer fabrics for the first two years with an option for the

third year.

"Valmet Black Belt shoe press belts were already included in Stora Enso's earlier order for this project. Our Industrial Internet application for paper machine clothing remote analytics is also included into the delivery."

The Oulu Mill in northern Finland currently produces wood-free coated paper and bleached softwood pulp.

Wash press technology ordered by Phoenix Pulp & Paper

Phoenix Pulp & Paper has ordered Valmet wash press technology for its Nam Pong mill at Khon Kaen province in Thailand.

The equipment includes two

TwinRoll presses including liquor filter, spare parts, engineering and site services. The presses are designed for a capacity of 540 air dried tonnes per day of hardwood bleached pulp while reducing the

mill's fresh water consumption and effluent generation.

"Valmet's technology and services are in line with our sustainable profile, reducing water footprint and improving

hardwood bleached pulp plant effluent," says Wichan Charoenkitsupat, operations chief for fibrous business at SCG Packaging, which owns Phoenix Pulp & Paper.

Johan van Baarle appointed sales director at DS Smith

Johan van Baarle has been appointed as sales director of DS Smith's Paper Division. Reporting to managing director Niels Flierman, Van Baarle will be responsible for the division's paper sales across Europe and North America – managing around five million tonnes of paper produced at DS Smith's mills annually.

Van Baarle joins DS Smith

from Cargill, the global food, agricultural, finance and industrial products provider, where he has worked since 2003. During his time at Cargill Van Baarle gained experience holding a series of senior customer-focused and sales manager roles.

Commenting on his new role Van Baarle said: "I am excited to contribute to DS Smith's purpose to redefine packaging

for a changing world. I look forward to sharing my experience with the global teams to focus on continued growth by understanding and meeting the demands of our customers. These demands are shifting towards lighter but stronger paper that is both innovative and sustainable in production and product."

Flierman said that van Baarle joins at an exciting time at DS



Johan van Baarle is sales director at DS Smith

Smith, with an opportunity to play a huge role in replacing hard-to-recycle and single use plastics.

Stora Enso appoints Annette Stube as head of sustainability

Annette Stube has been appointed head of sustainability and a member of the Group Leadership Team at Stora Enso, succeeding Noel Morrin, who retires in the end of year.

Danish-born Stube held a similar position in AP Moller-Maersk, an integrated transport and logistics company. Previously she worked as Director of Sustainability programmes in the global healthcare company Novo Nordisk. With a master's degree in psychology, she also serves on the board of Finnish energy company Fortum.

Commenting on the appointment, Stora Enso's chief executive Annica Bresky said: "I would like to extend my warmest

thanks to Noel for his valuable and committed work for Stora Enso. He has played an essential role in setting an ambitious sustainability agenda for Stora Enso and taking the group's sustainability reporting to a high level. We have set ambitious targets to reduce our greenhouse gas emissions and seen good progress in that during the past years."

Stube said: "I am happy to join Stora Enso, a true sustainability front-runner. Stora Enso is uniquely positioned as a solution provider in a low-carbon, circular bioeconomy with renewable raw materials, having sustainability at the core of its strategy."

Syntegon appoints board member for service and digital systems

Global process and packaging technology provider Syntegon Technology – formerly the packaging division of the Bosch Group – has appointed Johan Nilsson to its executive board.

In the newly created position, Nilsson, 54, is responsible for the new Service and Digital Solutions business unit. Nilsson was most recently head of Service and Industry 4.0 Solutions at Tetra Pak.



Johan Nilsson will focus on service and digital solutions at Syntegon

At the beginning of the year, Syntegon announced that it would focus on intelligent and sustainable technologies, with a special emphasis on services. With this in mind, Syntegon expanded its service activities in the wake of the coronavirus pandemic crisis and implemented customer services using digital solutions.

Michael Grosse, Syntegon Technology's chief executive, said, "Service and digital solutions are two important focal points of our business. With Johan Nilsson we have gained an absolute expert with extensive experience in these areas. He will help Syntegon to position itself even better."

Marc Wolpers is sales chief for hygiene at W+D

Marc Wolpers has joined Winkler+Dünnebieer GmbH as vice

president of sales for hygiene.

Part of the Barry-Wehmiller group, Winkler+Dünnebieer offers integrated system solutions for industries such as mail and postal, and tissue and hygiene.

In his new role, Wolpers will manage the sales department of the W+D Hygiene Solutions division, the W+D sales team and sales for BICMA Hygiene Technology in Mayen.

Before that, he was sales director at Trützschler Nonwovens and has extensive professional knowledge of the hygiene industry.

Ulrich Wald, who previously held this position, will remain with the company and will concentrate on dealing with key accounts directly.



Marc Wolpers has joined Winkler+Dünnebieer

3

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Annette Stube joins Stora Enso as head of sustainability



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