PULP PAPER & LOGISTICS

VOLUME 11 NUMBER 60 May/June 2020

ANDRITZ: Paper machine rebuild for Mopak mill in Turkey

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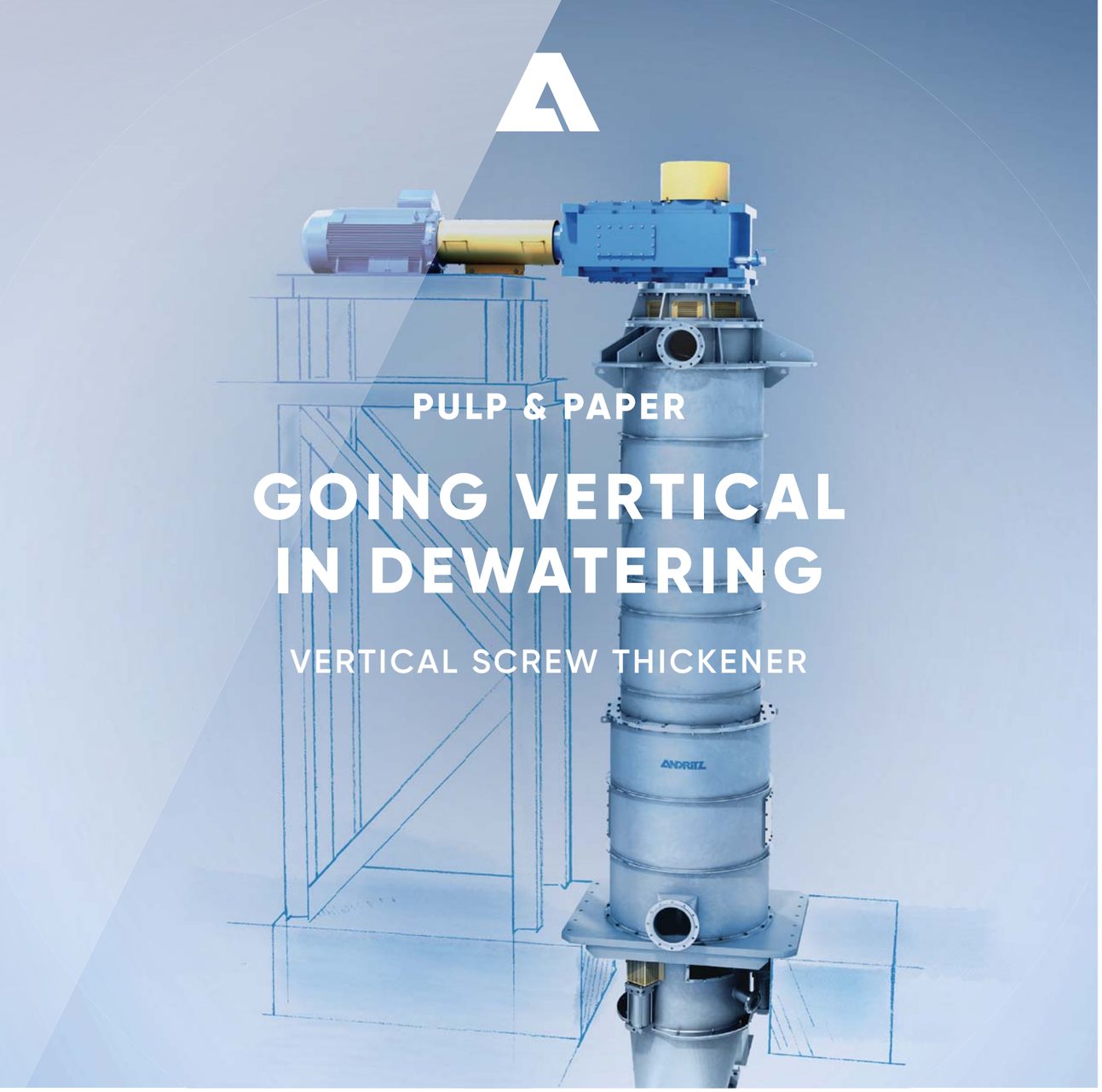
INDUSTRY NEWS

VALMET

ABB



PULP & PAPER

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COMMENT

Welcome to the May-June issue of Pulp Paper & logistics which also marks the magazine's 10th anniversary.

Much has changed within our industry since 2010 but some of those who appeared in the very first issue continue to support both the magazine and the global industry that it serves.

As I look through that first issue we were proud to include Andritz, Cristini, Heimbach, SCA, DS Smith and Mondi, to mention just a few that continue to be featured in Pulp Paper & Logistics to this day.

It is also pleasing to note that from the inaugural issue the magazine's global reach now has almost doubled to more than 21,000 registered professionals.

Even in these worrying times and the uncertainty over coronavirus, the paper and tissue industries continue to thrive, even if there are pockets where demand has slipped, as is reported in this issue.

Manufacturers have also risen to the challenge of producing the necessary protective equipment so important to health professionals and increasingly for consumers.

Reader feedback has shown that there is still a huge demand for news, even if this has to be now sent to personal email addresses for the full PDF issue. These requests have been accepted on a rolling basis and the reader has the option to end this at their discretion once normal working practises are resumed.

Looking to the July-August issue, we will be featuring the following: machine clothing; pulp and board machine technology; and mechanical pulping and pulp drying. Contributions should be with us around 12 June for possible inclusion.

Finally, even though the lockdown starts to ease here in the UK, we still need to stay alert to the threat and stay safe.

Vince Maynard, publisher

IN THIS ISSUE

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PULP PAPER & LOGISTICS

Keeping the wheels of the paper industry turning

In April at the peak of the coronavirus pandemic, Italy was closed – totally – with workers using smart systems from home, and all travel requiring permission. The government implemented even stricter regulations that closed most industries, except those for necessary products.

Giuseppe Fronteddu and Vincenzo Gangemi with a Valmet a Reelite 20 ENS about to be shipped to a customer

Valmet's Gorizia workshop personnel sending thanks to colleagues in China for a shipment of face masks

Production of paper making machines was a necessary business, which is why at Valmet's production plant at Pescia, Giuseppe Fronteddu and Vincenzo Gangemi were meeting the challenge to combine social responsibility and fulfilling its customers' expectations.

Fronteddu and Gangemi were working to meet the delivery time for a rewinder to a tissue customer. The production team had been split into shifts to enhance social distancing while working. Personal protection equipment and strict hygiene routines were more important than ever.

"Naturally we are worried about the situation," Fronteddu said. "One month ago, we lived a normal life where we could go to the beach or the supermarket whenever we wanted. Today we can only go to one specific store, stand one hour in queue to get some food, and go straight back home, everything else is closed. The disaster is a fact."

Gangemi added: "It feels good to be here to keep the wheels rolling, to help our country and our customers in this tough situation. It also gives a sense or normality in an un-normal world."

Fronteddu and Gangemi sent a greeting to all their colleagues: "We need to think in different ways, adapt to a more community-oriented mind. If everyone takes responsibility of what they do, keeping social distance, use personal protection and wash their hands, it is possible to satisfy society, our country and our customers."

At Valmet's manufacturing plant in Gorizia staff were also working to keep up with delivery times. When times were tough, they invented new ways to collaborate with customers and suppliers as well as helping each other.

"We talk a lot about values in Valmet and in this difficult situation we can really see that the people value of 'we are working together to make a difference' really comes from the heart. When someone needs help, we support each other, no matter where we are," said Paolo Vezil, Valmet's product sales manager in Italy.

An unexpected example was when Valmet in Italy nearly ran out of face masks. When colleagues in China heard about the problem they immediately found more, bought them and shipped them to Italy.

"That type of solidarity helped the workshop people to ensure we can continue assisting our customers, keep the wheels rolling and our people safe. This is what living our values is all about," Vezil concluded.

Zellcheming-Expo 2020 cancelled, but is on for 2021

Due to the spread of coronavirus in Europe, the Zellcheming-Expo in Frankfurt am Main originally scheduled for 24-25 June has been cancelled.

The show will be held in 2021 but the dates have yet to be announced.

Organiser Mesago Messe Frankfurt said that in view of the uncertain prognosis for the corona pandemic, and with cooperation with various industry representatives, it decided to cancel the trade fair for the pulp, paper and supply industry.

"We are very sorry to have to cancel this year's Zellcheming-Expo, but the health of our exhibitors, visitors, speakers, partners and employees is our top priority," said Martin Roschkowski, president at Mesago Messe Frankfurt GmbH. "The decision was not an easy one for us, nor is it for other trade fair organisers worldwide, who are facing similar challenges due to the current situation."

Gerrit Lund, chairman of Zellcheming eV, added: "As much as we regret the cancellation of this year's exhibition, we look to the future with confidence – better times will come again.

"Within the association, we would like to use the time ahead to develop ideas and work intensively on new concepts for the association and the event. We are already looking forward to seeing you all again at the Zellcheming-Expo 2021."

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Relaunch in Bologna for Fabio Perini

Italy's Fabio Perini has relaunched its Bologna facility with a focus on research and development, Industry 4.0 opportunities, 'green' products and packaging under the Casmatic brand.

The Lucca-based tissue converting machinery manufacturer is hiring more engineers for its research and development programme into primary and secondary packaging, says Francesco De Luca, the Bologna facility's general manager.

Customer service is also a focus, he says: "We have optimised the Expert On Line service by providing customers with a 12-hour, daily, remote assistance service available 365 days a year, in order to be more timely in responding to customer requests and facilitate their work.

Fabio Perini's stylish facility in Bologna, Italy

"Thanks to this team it will also be possible, in a few months, to extend the services offered by the Tissue Performance Centre of the converting division of Lucca to Bologna, to collect and analyse customer data remotely, provide them with information on the status of the machines and suggest improvements aimed at maximising production efficiency," De Luca says.

Francesco De Luca, general manager of Fabio Perini in Bologna

Commenting on the Casmatic brand, De Luca says: "Casmatic is a renowned brand in the industry and we have always worked to improve technology in a strategic field such as packaging. We were among the first to present a completely biodegradable and resistant packaging and we are working on further solutions in this direction that we will introduce in the coming months."

Slip in demand for uncoated white paper

As with a number of paper makers in the US, Packaging Corporation of America (PCA) is planning to idle one of its two uncoated white paper mills for two months from May.

A decline in demand from schools and offices, and an accompanying increase in inventories, is behind the decision. It will remove about 70,000 tons of capacity, representing a 13 per cent share of the US market.

Affected is the mill at Jackson, Alabama, which has two paper making lines and associated sheeting lines. Production will continue at PCA's other white paper mill, Boise Paper at International Falls, Minnesota.

Elsewhere in Minnesota, other paper mills were responding to slipping demand. At Sappi's mill in Cloquet, rotating layoffs were introduced "to balance our product supply with demand".

"The temporary layoffs will be on a rotational basis, affecting employees for between one and two weeks at a time," said Olga Karagiannis, spokeswoman for Sappi North America.

In Grand Rapids, the UPM Blandin mill has shut down for an indefinite period.

"The global response to the coronavirus pandemic has led to an overall slowdown of the economy," general manager Scott Juidici said. "We are taking short-term measures to respond to market conditions. We rely on our global network of modern paper mills to meet customer demand."

At Duluth's Verso mill, which employs about 240 people, business is continuing.

"Verso continues to operate the Duluth Mill in order to serve in our role as a critical infrastructure manufacturer and to meet the ongoing needs of our customers, including those in other critical infrastructure sectors," said company spokeswoman Shawn Hall.

Face mask converting line developed by Andritz

An automatic, high-speed face mask converting line for the production of disposable face masks has been developed by Andritz Diatec.

In the first configuration, the converting line had the capability to produce masks for surgical/medical applications while other mask types – like N95/FFP2 – are currently being evaluated.

The new Andritz D-Tech Face Mask line produces and laminates three or more layers of fabrics (spunbond, meltblown, thermo-bonded nonwovens and others) and ensures highest quality and hygiene standards. It comprises unwinding and guiding units for nonwoven webs, cutting and positioning devices for the metal nose bar, an edge welding and cutting unit, a 90-deg rotation process, as well as positioning and welding of the ear loop elastics.

The line has a speed of up to 110 m/min and is able to produce up to 750,000 face masks per day. There are also different packaging options available: products can be packed in bags by an automatic flow wrapping machine or in cardboard boxes by an automatic cartoner.

Learn about the imminent EU emission control regulations

With new European Union emission control regulations due to be enacted, many paper making mills could find that they will be inoperable without changes.

At the end of April air pollution control experts Lodge Cottrell hosted a free webinar to help businesses navigate these new changes.

Even without the coronavirus pandemic, poor air quality is one of the biggest causes of premature deaths across the globe. Once the current crisis is over, poor air quality will resume its role as a major killer.

According to the World Health Organization, 'Air pollution kills an estimated seven million people worldwide every year'. Lodge Cottrell, part of KC GreenHoldings and which claims to be the oldest industrial air pollution control company in the world, hosted the webinar to help industrial businesses further reduce the amount of airborne pollution they emit into the atmosphere.

"Policy makers are well aware of the effects of poor air quality and are introducing stricter regulations to reduce the emission of airborne pollutants," says the company. "Lower limits under the Industrial Emissions Directive (IED) of the EU are being set for the most harmful and environmentally damaging chemicals, namely particulates (dust), NOx (nitrogen oxides) and SOx (sulphur oxides)."

Maurice Bottomley, business development manager at Lodge Cottrell, said: "It is obvious that many businesses are just not prepared for the changes in regulations and have no idea if and how they need to modify their plants to continue operating."

The webinar, the first in a series, was titled 'Meeting Airborne Emission Requirements Whilst Maintaining Productivity', and covered key issues including: The changes to the airborne emission regulations; what technologies can be employed to meet these changes; and some recent case studies regarding the transition.

More information from Maurice Bottomley by email at mbo@lodgecottrell.com

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Launch of the European alliance for a Green Recovery

The paper industry in Europe has supported a move by the European Parliament to launch an alliance for a 'green recovery'.

The Confederation of European paper industries (Cepi) has joined 180 political decision-makers, business leaders, trade unions, NGOs, and think tanks who have come together to create the alliance to support the initiative of Pascal Canfin, chair of the environment committee at the European Parliament.

In the face of the coronavirus crisis, Ministers from 11 countries, 79 cross-party MEPs from 17 Member States, 37 chief executives, 28 business associations representing 10 sectors, trade union confederation representing members from 90 national trade union organisations and 10 trade union federations, seven NGOs and six think tanks, have committed to working together to create, support and implement solutions to prepare Europe's economies for the world of tomorrow.

What is the first pan-European call for mobilisation on post-crisis green investment packages is hoped will work to build the recovery and transformation plans that, as Cepi said in a statement will "enshrine the fight against climate change and biodiversity as a key pillar of the economic strategy".

Cepi continued: "Sharing the belief that the economic recovery will only come with massive investments to protect and create jobs and to support all companies, regions and sectors that have suffered from the economy coming to a sudden halt, the alliance commits to contribute to the post-crisis investment decisions needed to reboot and reboost our economy.

"Covid-19 will not make climate change and nature degradation go away. The fight against this crisis will not be won without a solid economic response. The alliance commits to participate in the fight and the victory of these two battles simultaneously, and by doing so, being stronger together."

● Cepi has also paid tribute paper industry employees who have continued to guarantee production and transporters who have help deliver products in Europe.

Director general of Cepi Jori Ringman said: "Thanks to our 180,000 direct employees, the great majority of paper mills are running in the EU: paper industry staff are making sure that citizens have access to the hygiene, health and food supplies they need during this COVID-19 crisis.

"Our industry is also supporting the fight against COVID-19 by producing masks, materials for test kits or filters for respiratory devices. All forces need to be united to produce in Europe for Europe the much needed healthcare and medical goods.

"With our tribute video #togetheragainstcoronavirus, we would like to thank our employees for their determination and commitment; we wish to honour the efforts of our staff and are very proud of the solutions that we can bring to EU citizens in these exceptional circumstances."

The sector comprises more than 420,000 enterprises (20 per cent of the total EU manufacturing sector), 3.5 million direct employees (10 per cent of the total workforce in manufacture) and generates an annual turnover of €520 billion, 3 per cent of EU GDP.

Special home delivery boxes designed by DS Smith

With demand increasing for packaging to contain emergency provisions for the most vulnerable during lockdown, DS Smith worked closely with food retailers across Europe to design, develop and produce new boxes.

In addition to providing critical support to keep goods moving and replenish shelves as quickly as possible, the focus at retailers changed to home delivery of goods. As more countries implement social distancing processes and enact new legislation, this service became essential to people facing coronavirus movement restrictions.

Stefano Rossi, chief executive of packaging at DS Smith

To combat this, DS Smith has developed special new boxes to be filled by food retailers and left on the doorstep.

As a result of social distancing and self-isolation guidelines, the boxes were designed to be stacked in delivery vans, picked up and dropped off to support the safety of everybody involved in the delivery process.

Stefano Rossi, chief executive of packaging at DS Smith, said: "I'm extremely proud of the whole team at DS Smith; their determination to support these initiatives meant that we delivered a new design in under 24 hours. This was subsequently prototyped, tested, manufactured and delivered in less than a week."

News in brief

● Valmet's 300th Paper Lab, an automated board and paper testing laboratory, is being supplied to Papierfabrik Palm's mill at Aalen-Neukochen in Germany. Three of the labs are being delivered to Palm, the other two going respectively to the Descartes mill in France and the Wörth mill, also in Germany.

The Paper Lab for the Aalen-Neukochen mill is additional to the PM5 containerboard machine being installed with mil-wide automation and services.

Pulp Paper & Logistics

Mondi converts line to make face mask components

Mondi's plant in Gronau, Germany, which makes materials used in hygiene products such baby diapers, adult incontinence pads and feminine care items, converted one of its manufacturing lines to make face mask components during the coronavirus pandemic.

The paper industry has been stepping up to meet demand for face masks

The paper and packaging manufacturer's line was adapted to make a three-layer, laminated strap that binds a stretchable plastic film between layers of soft, nonwoven material. The straps, which Mondi supplies to its mask-making customers on a reel, are then cut and attached to each side of a mask, which can loop comfortably over the user's ears to hold the mask in place.

This elastic material replaces a rubberised band that holds the mask to the face, thereby increasing operational speed of the machines in comparison to rubber, which is slower.

Dr Michael Trinkaus, director of R&D and application engineering for Mondi's Personal Care Components division, said: "Mondi Gronau is working to provide straps that will fit more than one billion nonwoven face masks. As there is increasing demand for such types of face masks, we are building up our capability to meet this demand. By producing this soft elastic strap, we are able to produce more volume to meet growing demand."

Mondi also operates a plant in Taicang, China, that laminates film made in Gronau to assemble nonwoven hygiene products similar to those manufactured in Germany. Demand was growing for more supplies from customers across Europe, prompting the Gronau plant to increase production of the material.

Corrugated industry meets in Munich next March

The corrugated and folding carton industry will be meeting at Europe's next exhibition dedicated to the sector, the fifth CCE International, being held in Munich from 9-11 March 2021.

Exhibits will cover the whole production chain, including raw materials, machinery, accessories and services, all aimed at optimising the production process and generating added value.

"Sustainability, versatility, printability and good transport protection have become essential aspects of packaging in terms of marketing and brand presence," says exhibition director Liljana Goszdziewski. "Also, the retail business is constantly accelerating, and there is a high demand for digitalised packaging and individualised products.

"Many conventional production methods have now reached their limits, so the corrugated and folding carton industry is heavily investing in bespoke product and processing solutions to update their production lines. Fast moving machinery, digital solutions, as well as a high level of automation and connectivity is needed to solve production problems in often delicate converting, printing, and finishing processes."

Open seminars will be held on all three days. Case studies, technical talks, and panel discussions will cover the latest trends and topics of the corrugated and cartonboard industry, such as digital solutions, printing methods, sustainability issues, quality control, value creation, and specific converting and finishing applications.

As in previous years, CCE International is being held alongside ICE Europe, covering the conversion of flexible, web-based materials, such as paper, film, foil and nonwovens.

Postponement for Tissue & Paper Bangkok show to September

Tissue & Paper Bangkok, which was originally scheduled to be staged in June 2020, will now be held at BITEC, Bangkok on 9-11 September 2020.

The rescheduled date is intended to provide a safe and secure environment conducive to business, networking and professional education for the paper, pulp, tissue and related industries.

More information from www.tissueworld.com/bangkok

Newfound security for a tissue maker

The drive system for the tissue machine was becoming increasingly difficult to maintain

Consolidation of the UK paper making industry has opened new opportunities for paper makers using aging equipment. Here's how Industrial Automation & Control and CP Automation future-proofed a surviving tissue business with crucial equipment upgrades

An old recycled-tissue mill was facing difficulties in 2019. Challenged by aging and problematic legacy equipment, a shrinking market and business uncertainty, times were tough.

The drive system for the tissue machine was becoming increasingly difficult to maintain. When the manufacturer of the drive system, Harland Simon, went into administration it became a problem that the tissue maker could no longer overlook. By keeping a drive system that was showing its age and no longer supported by the supplier, the business was leaving itself vulnerable.

The tissue maker called on systems integrator Industrial Automation & Control (IAC), which had provided engineering support for many years. However, finding a comprehensive solution would not be easy, given the business landscape and scarcity of cash flow.

IAC worked with the tight budget and determined the best way to replace the old drives while retaining the existing DCS system.

Opting for a retrofit approach to keep costs down, IAC had to extend the existing drive enclosures to make room for the new ABB drives and associated hardware.

But IAC then faced a further challenge. It became evident that the old drives relied on built-in power supply conditioning. These filters were just as old and problematic as the drive system they served. It was imperative that new power supply conditioning was added alongside the new ABB drives, but with the budget already stretched, IAC needed to bring in a power quality expert to try and keep costs down.

IAC called John Mitchell, global sales and marketing director at CP Automation, who visited the site and carried out an audit. He concluded that the old power supply conditioning was only performing to 50 per cent of its original capacity. Unless the tissue maker wanted to pay ongoing power factor penalty charges from the energy supplier for inefficient usage, they had no other choice but to source a new power quality filter.

The upgrade project was becoming much bigger than originally planned, because of the unforeseen power supply conditioning issue. Mitchell provided competitively-priced Block AC line chokes, SineTamer for transients and lightning protection, Comsys ADF filters for harmonic mitigation and reactive power compensation for the ABB DC drives.

At this point in the project, the tissue maker was acquired by a larger and more financially-stable paper hygiene products group. This proved to be exceptionally good timing for the tissue maker, as the buyers recognised the need to invest in the required equipment to move forward.

While the system was designed and hardware components purchased, there was a period of uncertainty, waiting for the installation date, and hoping that the old system would not fail.

"Installing new drives without power quality conditioning would have been a bad idea," explained Mitchell. "Drives generate harmful harmonics that get everywhere in the system, which cause transformers to overheat. The upfront cost of the harmonic filters will be more than covered by the ongoing saving in energy bills and longer lasting equipment.

Bob Coombes, deputy sales manager at IAC, also commented: "With the help of CP Automation, we were able to deliver a complete solution for our customer.

"Our customer made it clear that any break in production, to swap out the equipment had to be minimal. We planned all installation and commissioning tasks ahead of the shutdown which enabled the work to be completed efficiently.

"By utilising a team of our own technicians and engineers to remove redundant equipment, install new panels and commission the new drive system complemented by CP Automation who commissioned the filter system, migration to the new set up was a complete success."

The tissue maker is now in a much more secure position, using commonly-used parts that the industry is familiar with for repairs and maintenance. Furthermore, the effective power quality conditioning means the business won't be faced with further equipment replacements in the future, attributed to harmonic damage.

More information from CP Automation by email at john.mitchell@cpaltd.net

The new nature of automation

Unlike with a traditional control room, the 'control space' moves with users everywhere with their mobile devices

Photograpy: Kristian Broholm

Valmet's first digital automation system was introduced 40 years ago. The latest developments have been so revolutionary that now we are talking about the new nature of automation. Soili Städter reports

Valmet DNA is an automation and information platform for process control. In 2018, Valmet was first on the market to introduce web-based DNA Dashboards that visualised plant key performance indicators, providing users with an opportunity to access the information with mobile devices outside the traditional control room.

Last year, the renewal continued with the introduction of a new web-based Valmet DNA User Interface (DNA UI). The new user interface offers the users personalised information whenever, wherever and however they want it, while extending the use of the automation system to more users and roles.

Peter Hölzl, Valmet's programme director, has been leading the development project. "DNA UI, the new interface, plays a central role in process automation. First, we have to understand the user's work and then enable the individual to communicate collaboratively. We've worked with our customers to understand their needs and wishes, and plenty of new features have been developed to meet the technical and personnel demands of the future," Hölzl explains.

Right data in the right place

Each process in paper making involves a huge amount of data which has to be precisely controlled by the operators. The flow of historical, real-time and predicted data from each process, equipment and other systems can quickly become overwhelming, because more data is available for them to consider and analyse.

Process information is also needed outside the control room. From logistics and the laboratory to the boardroom, the entire site community needs specific information about the process, but the right kind is not always easily available. At the same time, the ways of working are increasingly mobile. With DNA UI you don't have to stay in the control room to be on top of the situation.

From control room to control space

Since information can also be received outside the traditional control room, Valmet talks about "control space". It moves with the users everywhere they go, and mobile devices can be used to perform the necessary control, monitoring and reporting tasks. Control space empowers users and enables collaboration.

The control room set-up is transformed into a more transparent operation. Displays are arranged according to hierarchy levels, starting with the overview, then showing the operator's primary page during a normal working day. At the next level, details about the process or sub-process are presented. The final level presents detailed information about equipment and controls, interlocking and more.

Hölzl explains: "All in all, DNA UI makes work more collaborative. Customers can now utilise an innovative interface to make their business more effective. In this renewed user interface, we've really thought about people, their tasks and responsibilities, communication and ergonomics. DNA UI can easily be used in our existing installations, but also at completely new sites."

The control room set-up is transformed into a more transparent operation. Displays are arranged according to hierarchy levels, starting with the overview

Benefits of DNA UI

- Better efficiency and control
- Fast operations with touch screens
- Increased situational awareness
- Trust in the system and an immediate understanding of what it shows
- Cooperation with the plant/mill community
- Empowerment to modify the user interface to match the user's preferences
- Advanced cybersecurity

Personalised user profiles

"There are several features that make our new user interface attractive. It's web-based, and no installation is required. With the help of web-based technology, you can use the interface wherever you want, whenever you want – and whatever device you want," says Petri Tiihonen, manager at Valmet's automation product management.

Personalised user profiles and access control, as well as personalised pages and contents, enable effective work, but also give responsibility to the right people. Information is shared based on their requirements. This also leads to greater security protection. Certain areas are restricted, with user rights based on roles.

The control space presents challenges to cybersecurity, which has therefore been considered during development work. The DNA UI cybersecurity capabilities continue to build on the decades of cybersecurity development within Valmet DNA. Developers trained in security have worked with cybersecurity experts to ensure that security is ingrained in the design process.

As Tiihonen says: "Users are provided with personalised information for decision making. As a result, they are better aware of situations and able to make quick decisions. The intuitive UI also enables fluent collaboration with colleagues and customers."

At the forefront of digital evolution

Valmet has been at the forefront of developing digital solutions for its customers since the 1960s. In 1979, it took a giant leap forward by becoming the second company in the world to launch a distributed control system (DCS). It was then already possible to integrate various machinery control systems into the DCS. This technology has been continuously renewed and further developed. It is now called Valmet DNA.

The advanced DCS built a solid foundation for Valmet's digital development that is now continuing in the era of the Industrial Internet. The next step in digitalisation has been to improve the visibility and profitability of the operations of a plant or mill by analysing and utilising data even more extensively for the customer's benefit.

Keen and green

Millennials have become a driving force for the Circular Economy. Sam Jones, sustainability manager at DS Smith, explains their significance for the paper making industry

As the incomes of millennials – those born between 1980 and 1996 – increase, so does the impact they are having on brands and, consequently, the pressure for sustainability that comes with their demands.

And if brands want to survive, they will need to adapt to the green attitudes of millennials – those consumers born between 1965 and 1980 – and their spending habits. Millennials have created a seismic change in attitudes towards sustainability and social justice and their influence cannot be underestimated – especially as they continue to use a variety of effective methods to shape a more sustainable and circular economy.

Millennials know how to talk

Millennials treat products that are detrimental to the environment with an understandable ruthlessness: they are far less tolerant of them. And, they don't just vote with their wallets; they also use their voice to tell the world about their views.

A huge share of voice is commanded by millennials on social media platforms which they have used to lead heated conversations against brands which continue to slip up on the basics, such as using single-use plastics, non-recyclable material, sourcing paper from unsustainable forestry practices and needlessly over-packaging their goods.

Brands that pave the way for sustainability and who proactively commit to social causes will not be overlooked in the consumer lens. Although, they must do it in an authentic and credible way – those who attempt to greenwash or fool consumers with unsustainable practices will likely see their brand trust damaged in the future.

The sustainable shopper

We have officially entered the era of the value-driven consumer. Gone are the days when purchasing decisions are based on "is this product good for me" but instead, "is it good for the planet?".

Millennials want to know if the paper they use is recycled, if the plastic use is necessary and if the volume of greenhouse gasses produced justified. This is especially true amongst millennials who have championed the idea of sharing more. The rapid rise of the ethical consumer has urged companies to build and convey, and win the hearts of the eco-conscious consumer, but how should they do it?

Clever packaging for example, can aid the circular economy concept by enabling the re-use of packs already in the supply cycle. As seen with Ted Baker, the brand developed a completely recyclable pack, with the aim of reusing 20 per cent of these boxes annually. This way, companies can help the environment and show customers that they care.

Millennials put their money where their mouth is

Millennials are the largest demographic in the workforce and cannot be ignored – they are willing to put their money where their beliefs are. As such, the products, and services they purchase need to match their expectations.

To ensure eco-minded millennials continue to loosen their purse strings, brands need to offer them a deal on sustainability that appeals to their sustainable mentality. With the public discussion on the environment widespread, businesses are already rethinking how they can be savvier about the materials they use in their products. By maximising recyclability, brands can contribute to saving the planet, and keep their edge in the market.

Millennials will not shop until unsustainable packaging is dropped

It is clear that millennial attitudes are translating into how they buy their goods. The global rise of e-commerce means that companies have to rethink their packaging to ensure it is designed in a robust way to allow products to be delivered through a variety of channels.

As they review their packaging, brands are under constant scrutiny to ensure they get every aspect of their packaging right, including goods protection, sustainability, environmental and most recently, an exciting experience.

Unboxing videos have been the latest trend to gain prominence, proving extremely popular on a variety of channels. If brands can engage customers in these key moments of the purchasing process, and instil excitement from a recycled package, we're likely to see brands around the world follow suit in their effort to contribute to the overall customer experience in more sustainable ways.

What is the next step?

Millennials are catalysing positive change by placing the onus on brands, packaging companies, and recycling authorities to unite in the adoption of tougher environmental regulations.

However, sustainability is not the only factor driving millennials' purchase decisions – convenience also plays a huge part, and increasingly, brands are caught in a juggling act between sustainability whilst also trying to ensure goods are delivered quickly.

Thankfully, many brands have learnt to juggle these both with the help of packaging. Single-use, hard-to-recycle material is being substituted by more easily recyclable packaging like paper and cardboard – the latter boasting the highest recycling rate of any material, with 85 per cent being recycled across the EU. The adoption of these materials will enable firms to place sustainability and circularity into their business plans so that they can continue to supply millennials with always-on, same day, flexible delivery services.

It is vital that these positive steps towards sustainable packaging are firmed up through a holistic and collaborative approach from multiple stakeholders within government and industry. This will ensure meaningful progress will continue.

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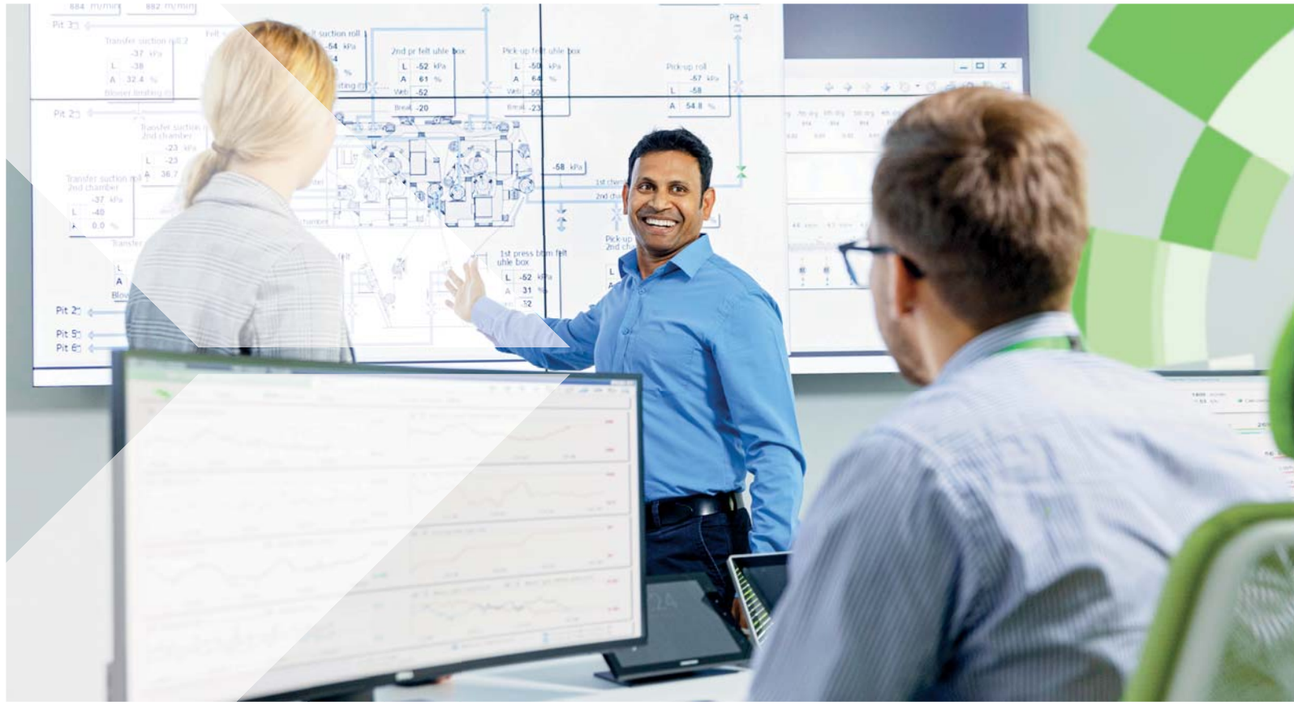

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Valmet FORWARD

Countering myths about automated paper testing

There's no good reason why a paper mill shouldn't be using automatic quality testing systems, argues pulp and paper expert Martin Fairbank PhD, who here debunks eight myths often used to maintain the status quo

Automated paper testing has been available to paper and board mills for several decades, and the mills that use such systems are reaping the benefits of faster process optimisation, improved quality compliance and reduced off-spec product.

Given the many positive outcomes of automated testing, it may be surprising that there are mills that have yet to invest in automated testing technology, particularly since modern systems are easier than ever to operate and provide unparalleled speed for confirming quality specifications.

Yet some mills are reluctant to forego traditional benchtop testing procedures due to misconceptions about automated testing. With insight from Jonas Andersson, who has more than 30 years of global pulp and paper industry experience specialised in testing and paper quality and is currently global product manager for automated paper testing at ABB, this article debunks some of the common myths and addresses some of the misconceptions about making the transition from manual to automatic testing.

Myth no1: Automated testing is too expensive

While automated paper testing systems have a higher initial cost than stand-alone instruments, mills achieve a good payback fairly rapidly through quality improvement and a reduction in rejects. Automated systems, as shown in Figure 1, are capable of testing up to ten times as many measurements in the same time as it takes for manual testing, delivers better accuracy and can automatically store and manage quality information.

The results generated by automated testing are instantly available remotely and if available, can be linked with other tools such as data historian systems to enable analysis of the impact of process adjustments. Reducing dependence on manual testing also frees up human resources to focus on quality improvement while reducing quality control costs. Paper mills focusing on Six-Sigma levels of quality achievement will benefit greatly from the increased volume and accuracy of paper quality data.

Myth no2: Paper mills need to upgrade to an advanced quality system in order to fully utilise all the test data automated testing provides.

Modern automated testing provides all the analytical tools needed to review paper quality and optimise production. Detailed cross-machine information makes it easier to maintain high quality across the width of the entire jumbo reel while ensuring all rolls delivered meet end-users' required specifications.

Built-in dashboards typically include tools to follow both short- and long-term quality trends and detect deviations so corrective actions can be taken. While results can be transmitted to other quality systems, the built-in data visualisation software includes the necessary functions for quality management, so it is not necessary to upgrade any other systems to see immediate value.

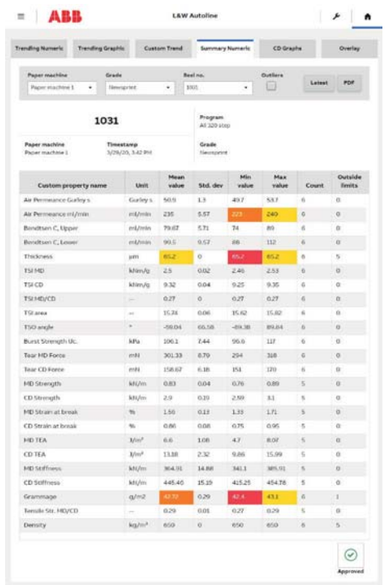

Figure 2: the dashboard data

Myth no3: Automated testers give different results than stand-alone testing equipment

Since the dawn of automated testing, equipment manufacturers have striven to use the same measurement principles as the benchtop instruments, following ISO procedures and calibrated to the same standards. No correlation is required when an automated testing module uses identical components as the benchtop instruments, thus providing identical test results.

Myth no4: Detailed cross-machine sample testing is not necessary and too expensive

Manual testers typically take measurements at only three positions across the machine and the process can be adjusted using these measurements. Automated systems, however, can make more frequent measurements, for example, every 30 cm across a 10 metre-wide machine, in the same time or less, as shown in Figure 2.

This not only gives a more accurate average, but constantly provides profile information that can be used to verify online sensors and adjust the cross-machine profile of parameters such as moisture, basis weight, thickness and gloss. Without accurate measurements, these parameters cannot be controlled, and quality suffers. To achieve this manually, more resources and more budget are needed, whereas with automated testing, no extra labour or material costs are required to obtain this increased testing frequency as well as detailed CD profiles.

Myth no5: Operation of an automated tester requires extensive training to operate and maintain

The latest automated testing systems are simple to operate, requiring the minimum of training. For example, with ABB's newest L&W Autoline

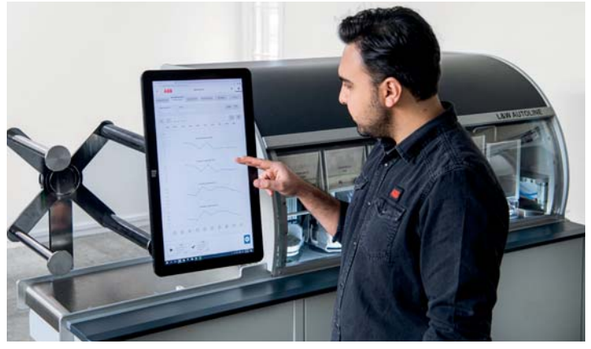

Figure 1: An automated paper testing system from L&W Autoline in use

Figure 3: Automated paper testing systems that enable modules to be serviced while in operation ensure minimum impact to quality testing and continuous operation

the intuitive touchscreen interface and trouble-free paper feeding systems further reduce operator involvement compared with previous generations.

Once a paper sample is fed into the device, testing starts by touching the screen, with results automatically collected and organised into reports that are available mill-wide, as shown in Figure 2. Maintenance procedures are very similar to those of the benchtop instruments when they use the same measurement principles.

Myth no6: Testing feedback time is not critical

Many people think that having rapid feedback of test results is not critical because the quality data is only used for quality assurance, and not for quality and process optimisation. Standard testing procedures require conditioning of the paper for up to several hours before testing.

But if operators receive quality information within 15 minutes of a turnup, they can avoid production outside quality limits and the expense of rejecting paper.

An automated paper tester such as ABB's L&W Autoline takes a machine-width strip of paper from a finished reel of paper and conducts a range of tests cross-direction positions within about 10 minutes, providing rapid feedback to operations. This avoids multiple steps in manual testing, such as sample preparation, sample conditioning, manually entering values, calculations, compiling data and comparing to quality specs.

Myth no7: It is hard to service equipment running 24/7

Automated paper testing equipment runs 24 hours a day and seven days a week, and it's important to keep it running smoothly. Users typically have a service agreement to take care of equipment maintenance that they can't handle themselves.

Mills seeking to implement automated testing should be confident that their chosen equipment supplier has a reliable, worldwide network of service representatives to handle this requirement and this maintenance can be non-interruptive to the system, allowing continuity of quality testing as show in Figure 3.

Myth no8: Automated testing equipment will not meet our specific requirements

The latest automated testing equipment is highly customisable, meeting the needs of mills of all sizes and with different levels of testing requirements.

Building on the legacy of almost 50 years of automatic paper testing, ABB's L&W Autoline has been continuously improved in terms of efficiency, testing capabilities, scalability and ease of use. New modules have been developed to provide testing of many different types of paper, from fine paper to board. Each L&W Autoline is scalable and customisable, in that the testing modules to be included are selected by the users to match their needs in a system that is now available in two sizes. If needs change, the modules are "plug-and-play" – easily swapped in and out of the system.

The latest Autoline can even start testing a second sample before a first sample is finished, which can save up to 20 per cent of overall testing time. The data collection system manages all the results coming from each of the individual testing modules and matches them up with the cross-machine position and sample number. The equipment also queues samples, so that a user does not need to be present to start testing of the next sample as soon as the equipment is available.

Debunking myths with facts: 30 years of automated testing at Stora Enso's Langerbrugge mill

Stora Enso's paper mill at Langerbrugge in Belgium makes recycled newsprint and super-calendered paper, and has relied on the L&W Autoline for the majority of its lab testing since the 1990s. It first purchased the equipment to minimise the need for manual testing, reduce the number of instruments needed and obtain cross-machine profile data in order to optimise quality requirements. In 2019, the mill upgraded its Autoline equipment.

"Thirty years of experience with L&W Autoline made it an easy decision to proceed with a new generation last year," says Monique Gistelinck, technology manager at the mill. "We rely on the Autoline to deliver high uptime and trustworthy results. It is unthinkable nowadays to work without this system."

Overcoming misconceptions for higher quality achievements

For today's paper and packaging mills, the costs of implementing automated testing are outweighed by its multiple benefits. With a typical return on investment of less than two years achievable through detailed quality reports and faster process optimisation, more mills should be ready to make this transition. Ensuring a competitive edge comes from the comprehensive, accurate and rapid test results that are easily achieved with automated paper testing.

Pulp Paper & Logistics

No need for guarantees

The Kyiv mill's press section with (left to right) Aleksandr Yakovina (PJSC Kyiv), Georg-Michael Sautter (ANDRITZ), Aleksandr Kravchenko (PJSC Kyiv) and Vitaly Solovyov (PJSC Kyiv)

An upgrade by ANDRITZ of the BM1 cardboard machine at the Kyiv cardboard mill in Ukraine was turned round much quicker than expected. PPL reports

"We didn't need guarantee runs." So says Aleksandr Yakovina, quality director at the PJSC Kyiv Cardboard and Paper Mill, where he started working on BM1 three decades ago.

Kyiv's BM1 is a 37-year-old machine, one of four identical board lines built during the Soviet era: two in Russia, and two in Ukraine. With a working width of 4.2 metres, BM1 produces white-top liner and white-lined chipboard (GD2 and GD3) in a basis weight range of 125-420 gsm, combining with the mill's BM2 to turn out up to 240,000 tonnes per year of packaging paper and board.

The mill at Obukhiv, a little south of Kyiv, sells these products to almost 30 countries in Central and Eastern Europe, Asia and Latin America, with customers including Unilever, Nestlé, and McDonald's.

Problems solved

"We are trying to continue modernising step-by-step to reflect market requirements – for example, BM1 is starting to produce lots of products in low grammages (150-200 gsm) for flexographic printing," Yakovina says.

In this respect, the upgrade to the press section in early 2019, as Yakovina continues, "has improved all of the low grammages, as well as enabling us to make lighter-weight grades in the 150-180 gsm range."

What is perhaps most remarkable about Yakovina's claim that guarantee runs were unnecessary is that this was not an easy project.

Says Aleksandr Kravchenko, the mill's chief technical officer: "It was a tough start-up." The mill planned a 21-day shutdown for the project (from last paper to first paper), with three of those days set aside for the start-up.

As Yakovina explains, "There are problems to be solved in every start-up," and, in this case, that meant "we eliminated some threading issues in the press section and into the dryers".

Georg-Michael Sautter, senior director sales for Paper & Board at ANDRITZ, says, "What I remember most was that during the installation we had meetings every morning and the team leader came to me calmly, gave me a notebook and pen, and said 'Write that down [Sautter's recommendations] and I will communicate it to our specialists.' Every morning, we solved some issues."

Indeed, Yakovina confirms this. "We solved all of the problems and started up on schedule," he says. And the machine achieved the contracted values for dryness, bulk, and smoothness right away.

Kyiv's BM1 produces white-top liner and white-lined chipboard

You've got to have faith

Sautter points out, "Normally, it takes six or seven months to acceptance." But in this case, the expert with more than 30 years of industry experience says, "It only took three."

Which brings us back to Yakovina saying there was no need for guarantee runs. He explains why: "We saw that all the contract values were being achieved in normal operation, so we didn't need to do a warranty test run. This is rare."

Vitaly Solovyov, chief of cardboard production at Kyiv, adds, "This depends on the supplier's experience."

And the Kyiv team had seen plenty of evidence of ANDRITZ's experience. Before going ahead with this upgrade, they twice visited one of the identical BMs: at Naberezhnye Chelny in Russia as well as Reno de Medici in Arnsberg, Germany and the Iggesund mill at Workington in the UK.

It's complicated

That led to the green light for this project, which cost several million

May/June 2020

This PrimeCal Hard hard-nip calender provided a consistent CD caliper profile and bulk control, along with a smoother surface finish

euros. While there may not have been any world firsts involved, that is not to say that there were no points of technological interest.

Sautter notes: "The press section wasn't simple. Look at the space and the height. Plus, we used bigger rolls and new sheet-feeding technology – the project was a real challenge. The tough part is that you're going into an existing plant – you have to take account of all the parts that are already there. It's much harder than building it new."

This part of the upgrade involved ANDRITZ moving the existing 1982 press from the second to a newly-created third position, while installing a new PrimePress X shoe press in the original second position, between the two original presses. The special shoe design delivers gentle dewatering and preserves bulk, while reducing steam consumption and cleaning time.

Besides that, "The shoe press has some unique features," explains Sautter, which include "a patented solution that doesn't cause belt wear, so the belt doesn't need to be moved to prevent wear."

Aleksander Yakovina, quality director at PJSC Kyiv: "All of the preparatory work and project realization was really good, with a high-level quality of work and experienced people"

Georg-Michael Sautter, senior sales director for Paper & Board at ANDRITZ: "This is the first step in a whole modernization concept. The aim was to reduce energy consumption and we succeeded"

But the key point of this upgrade was reduced energy consumption – steam use in BM1's rebuilt press section is now down by 20 per cent. The upgrade was future-orientated, as Yakovina points out, "This is the first step in a whole modernisation concept. The aim was to reduce energy consumption and we succeeded. Now, if we raise the capacity of the machine in the future, we will use less energy."

On that subject, the press section upgrade has increased the potential speed of that part of the machine to 800 m/min, and the next bottleneck is the seven-stage mould cylinder former section, which is currently maxed out at 450 m/min. The short-term aim is to install an eighth vacuum former, so the machine will be able to run less mass per former, and therefore raise the running speed. This was expected in February 2020. The mill then planned to rebuild the whole wire section into a Fourdrinier section in a later investment.

In contrast to all the planned and completed changes in the wet end, the Soviet-designed dryer section will not be re-designed. It uses 95 cast-steel cylinders arranged in eight groups, with 93 drying and two cooling. Although these have all been running since the mill's start-up in 1982, there are no plans to replace these, as Sautter explains, "Steel cylinders can last for over a century." However, the steam and condensate system will likely be upgraded at some stage in the future.

Calendar date

In the calender section, ANDRITZ installed a new PrimeCal Hard hard-nip calender to provide a consistent CD caliper profile, bulk control, and a smoother surface finish.

Yakovina explains that the resulting consistent board geometry is key for flexographic printing. And the 200 deg C calender also had a target of delivering roughness in a range of 2.5-3.0 pps (Parker Print Surf), especially on low grammages. Sautter says, "There was nothing unusual in the calender, but we delivered it, installed it, it ran and it achieved its smoothness targets – it worked."

Also part of the upgrade by ANDRITZ was an extension of the automation system on BM1. Although Sautter admits this is a normal part of any major upgrade, Yakovina adds that in this case, it "helped us to achieve stable quality".

Vitaly Solovyov, cardboard production chief at PJSC Kyiv

History lessons

Besides the techno-industrial aspects of this project, both ANDRITZ and the Kyiv mill's team are very focused on people.

Yakovina says, "The most interesting thing for me was when ANDRITZ told us its history during the negotiations. I like very much that ANDRITZ honours its history. For example, if you go to different departments, ANDRITZ seems to keep hold of all of its knowledge and pass it on to new people from generation to generation."

Which is key to good communication, as Yakovina continues, "An important factor is to have the appropriate technical personnel to solve technical problems. I have worked on many modernisations and, frankly, there is no company or project that doesn't have some sort of issue. The question is, how do they communicate and help us solve it? If problems arise, ANDRITZ doesn't leave us alone; they give us advice. Every time there is good communication. In the end, everyone was satisfied."

Solovyov adds, "All of the preparatory work and project realisation was good, with a high-level quality of work and experienced people. If there were any questions, they got solved very fast. It's not difficult when everyone is experienced.

"Normally, it takes six or seven months to acceptance. Here it only took three."

Kyiv Cardboard and Paper Mill at a glance

Kyiv Cardboard and Paper Mill produces 30 per cent of the paper products made in Ukraine. Recycled paper is the main raw material, with more than 1,550 tons processed each day.

The mill has three production lines:

- A cardboard plant for the production of coated and uncoated cardboard and containerboard, including paper for corrugated products with total output of 240,000 tons per year;
- A tissue plant for the production of tissue materials used for sanitary and hygiene products, as well as for the production of toilet paper, napkins, and paper towels with total output of 70,000 tons per year;
- A packaging plant for the production of corrugated containers and packaging, using state-of-the-art equipment with a total output of 300 million square metres per year.

Focus on total cost of ownership

Budget-priced components easily find their way into pulp and paper mills, but they often result in more frequent maintenance and downtime. Chain supplier Tsubaki suggests that premium products provide lower total cost of ownership in this case study. PPL reports

A paper mill is a demanding environment for power transmission components such as drive chain. The manufacturing process inevitably generates large amounts of abrasive dust particles in the air. This dust will contaminate chain lubricant and work its way into the chain's internals, leading to corrosion and increased wear.

Ultimately this will cause the chain to elongate and eventually fail completely. The continuous nature of paper production compounds these issues, as the high-duty requirements cause improperly specified chains to fail faster. A single unexpected failure can bring the whole production line to a standstill.

For a major European paper manufacturer, a mill in Austria was suffering from regular delays caused by chain failure – specifically the drive chain installed in the paper coil elevator. The heavy coils of paper at the site are moved by 10 elevators to different floors of the facility, ready to be cut and processed.

Chains from three different brands were being used on the elevators, none of which were robust enough to offer long service life. The use of three different chain types resulted in inconsistent wear, resulting in the drive becoming uneven. In addition to the general atmospheric challenges of the application area, the chains installed on the elevators were regularly subjected to very high shock loads, which were causing the side plates of the chains to crack.

While being cheaper to source, budget chain struggles to meet long-term requirements. Premature failure leads to plant downtime, which interrupts order schedules. Maintenance intervals are also shortened, increasing the frequency of repairs. As a result, despite offering initial savings, the total cost of ownership of an inferior chain is greatly increased.

Realising this, the mill's management approached Tsubaki to provide an improved chain. With more than a century of experience, Tsubaki is a key supplier of power transmission components to the paper industry, along with other sectors. A responsive service and a global engineering capability ensured that Tsubaki engineers were quickly on-site at the Austrian mill to carry out a thorough inspection.

After assessing the 10 elevators, Tsubaki specified its GT4 Winner chain. Designed to provide strength in high-wear environments, the chain boasts four key features that are designed to reduce wear and minimise chain elongation:

1: Lube-grooved (LG) bushes hold oil at the point of contact which provides an internal reservoir for lubricant where the chain needs it most (sizes RS16B – RS24B).

2: Seamless and perfectly cylindrical bushes result in both better contact between the pin and bush and improved lubricant retention.

3: Centre sink rivets – for easy disassembly – which are designed with markings to identify pin rotations caused by chain overloading (sizes RS08B - RS16B).

4: Ring Coined connection links allow the chain to be specified up to its full power rating; unlike the typical standard slip-fit connecting links used by competitors which are usually weaker than the base chain.

Tsubaki's GT4 Winner chain features grooved bushes to retain lubricant and centre sink rivets

The GT4 Winner was trialled on a single elevator at the Austrian mill to gauge performance and potential benefits. Increased strength ensured that the premium Tsubaki chain could withstand the shock loads inherent to the application comfortably, eliminating the issue of cracked plates. This also minimised elongation and the likelihood of premature failure, which consequently reduced maintenance requirements.

Longer service life, a decreased risk to uptime and reduced maintenance translated to a greatly improved TCO compared to the previous chains. The successful test period led to the GT4 Winner being installed on all 10 of the paper coil elevators.

A global manufacturer of pulp and paper products turned to Tsubaki to reduce total cost of ownership by specifying a premium chain

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MESSUKESKUS

The rewinder as an enabler

Tissue products have increasingly wide ranges of specifications, and these can be enhanced using rewinders before conversion. Valmet offers this explanation into why rewinders are a key part of the process. PPL reports

Converting tissue paper to finished products is not always as straightforward as it looks, especially if the final product has to be folded. Quite often a step between tissue machine and converting is needed. That's where the rewinder comes into play.

The mother reel coming from the tissue machine is the first stage of a long converting journey before the tissue paper ends up in the consumer market as toilet rolls, kitchen towels, napkins, handkerchiefs, or the like.

To convert tissue folded products and in many cases rolled products, the mother reels need to be combined, or slit, or slit and combined, depending of the characteristic of the finished converted product. To enable this, mother reels are processed through a tissue combiner/slit rewinder machine.

A rewinder is the toolbox that enables the tissue machine output to satisfy every consumer's need

The many roles of the rewinder

Paper mills that have a converting plant integrated into their organisation produce mother reels from the tissue machine. The rewinder combines and slits those for wholesale dealers and/or for their internal converting plant.

Those that do not have any converting plant will produce mother reels from the tissue machine and then combine and slit jumbos for wholesale dealers or converting companies.

Companies that only convert tissue rolls, folded and interfolded products, can buy already combined and slit rolls from a wholesale dealer or mother reels directly from the mills. If the strategy is to purchase mother reels, they can use a rewinder for combining and/or slitting reels according to their production needs.

Key requirements for rewinding

The challenge for the slitter rewinder is to produce a maximum number of combined and/or slit reels per day corresponding to a pre-defined specification such as the number of plies, number of slits and desired roll diameter. These combined and/or slit reels will be converted one more time by the converting plant (integrated or otherwise) to a finished tissue product to satisfy the market request.

Any converting action has influence on the paper characteristic produced at the tissue machine. The embossing process increases web thickness with a reduction in tensile, and an inaccurate tension control may have a negative effect on the percentage of crepe. The rewinder, even if frequently located in line with the tissue machine, could be considered the first step of the converting process and the rewinding challenge is to ensure that as much as possible of the original paper characteristics are preserved.

Another thing to take into consideration is the fact that converting machines have different efficiencies and machine availability compared to tissue machines. The production capacity, according the converting or market demand characteristics need to be calculated in advance to avoid any potential delay on tissue machine production.

When correctly configured, the rewinder is the toolbox that enables the tissue machine output to satisfy every tissue consumer's need throughout the whole production chain.

Future enabler

When selecting a rewinder, there are several key parameters that need to be considered to calculate correct production output by tonnage, number of plies, number of slits and desired roll diameter. Web width, basis weight, density and size of mother reel all have an impact on the production output.

Crepe ratio influences how many metres will be wound onto each roll while how many unwinding stands are required depends on how many plies are needed. More plies will consume more mother rolls from the tissue machine.

The number of slitters depends on the desired finished roll widths. Finished reel diameter range and core diameters are also important parameters for the output from the rewinder. If there is a need for enhanced smoothness in the end product, a calendar can be added as well as other features.

However, the most important thing is to select a rewinder that preserves the quality generated in the tissue machine with equipment that can adapt to any future needs that might arise in your business. Instead of a possible future bottleneck, the rewinder can be your future enabler.

More information from Andrea Coluccini, product sales manager, tissue rewinders, at Valmet. Email: andrea.coluccini@valmet.com

New generation quality management system from Valmet

A renewed IQ Quality Management System has been launched by Valmet for the pulp, tissue, paper, board, and converting industries.

The new system enables paper makers optimise quality from fibre to finished product, improving process performance and increasing savings.

The system utilises Valmet's latest innovations and expertise by integrating the quality management of the entire production process, making it a step towards an autonomous mill. The new capabilities of Valmet IQ increase the degree of automation and reduce the human role in the process.

"Valmet IQ extends from traditional quality controls to the retention and refining online optimisation with wet end analysers. The new moisture management solution optimises the drying process from the wire-former section through the press and dryer section to the end of the reel. It will stabilise the process and improve the performance even further," says Marko Toskala, director of quality management systems at Valmet.

The renewed Valmet IQ Quality Management System connects quality data from fibre to finished product and takes a step towards an autonomous mill

Valmet IQ comprises all the devices and applications needed to monitor and optimise both process performance and end-product quality: scanners, measurements, profilers, machine vision, and quality-control applications.

Designed for more demanding production environments, the scanners feature stainless-steel exterior, enhanced diagnostics, and a new flexible sensor platform.

Compatible with previous generations, the new Valmet IQ is also compatible with the recently-introduced web-based DNA User Interface, which guides the operators to focus on the situation-critical information and make the right decisions instantly, helping to optimise quality faster.

"Our customers have moved from reactive to data-driven quality management and witnessed significantly more stable production quality and decreased amount of broke. The automatic optimisation of the entire value-chain has increased the production performance while simultaneously saving raw materials, chemicals, and energy," Toskala continues.

More information from www.valmet.com/automation/quality-management/

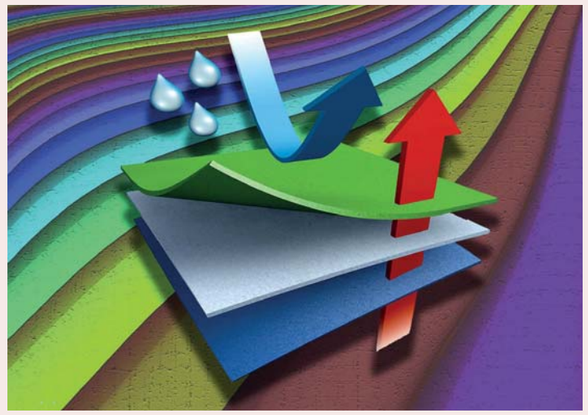
Defect measuring for paper coatings upgraded

A new range of systems for measuring the barrier resistance and wettability of coatings has been launched by UK-based Versaperm.

With 20 years of experience in the sector, Versaperm's range of dedicated systems is based around its permeability coatings equipment and sensor range.

Launched to meet a need for identifying coating defects such as foam streaks, pinholes and pits in the latest coatings, the systems are said to be fast, very accurate and easy to use.

Computerised control means that they require, at most, minimal training to produce results that are accurate to parts per million, or even parts per billion for some applications.



The physical characteristics of papers or card materials are primarily created by the coating's vapour permeability. Versaperm systems are capable of testing the vapour permeability of up to six coatings, samples, components or products at a time, sometimes in as little as 30 minutes.

The equipment can measure permeability not just with respect to water vapour but for almost any other gas or vapour. In addition to coatings it can be used to measure the permeability of films, laminates, foils and even finished cartons.

More information from Versaperm Ltd, 10 Rawcliffe House, Howarth Road, Maidenhead, Berkshire SL6 1AP, UK. Tel: 44 1628 777668. Web: www.versaperm.com

Real-time monitoring keeps tissue lines operational in time of crisis

As the tissue industry in Italy revives following the strictest coronavirus lockdown in Europe, Lucca-based Fabio Perini reminds its customers that its real-time monitoring of tissue production and conversion lines continue with augmented reality and a team of online experts.

"In these days of emergency," says chief executive Oswaldo Cruz Junior, "Fabio Perini is able to offer concrete and effective support to its customers, to guarantee their operational continuity: we have in place already an outstanding infrastructure for remote connectivity and we can count on our global presence and on the know-how of all our teams around the world."

The Tissue Performance Center is a state-of-the-art technical environment where experienced technicians, with the support of data scientists, collect and analyse customer data to provide information on the status of their machines and suggest improvements to maximise the overall equipment effectiveness.

A direct connection to the customers' machines makes the Tissue Performance Center's work proactive by predicting potential downtime. Periodically, the customer also receives a 'medical record' which identifies what improvements can be implemented.

"At Fabio Perini we have more than 10 people who provide assistance to over 60 customers who are sharing with us the data of 1,000 machines," says global customer service director Gianfranco Agnusdei. "Whenever we find anomalies, we immediately contact our customers, help them identify the causes, find appropriate solutions and thus reduce costly downtime. In the future we could also offer a predictive maintenance service: this will allow us to anticipate and thus further improve performance."

Winding capacity boosted by doubling up and auto roll changes

The newly-launched TwinDrive double unwinder has extended Voith's portfolio, and significantly boosts winding capacity.

Developed specifically for paper makers demanding the highest efficiencies, the TwinDrive builds on the VariFlex Performance winder, with a set change time of less than 25 seconds, and SmoothRun, with an active drum damping system that minimises vibration.

Winding capacity of the TwinDrive is said to be up to 20 per cent higher than conventional systems, achieved by an additional unwind position and fully-automated jumbo roll changes.

Depending on customer requirements, the paper web is connected automatically with a FlyingSplice or ButtSplice system, providing time savings that result in higher production.

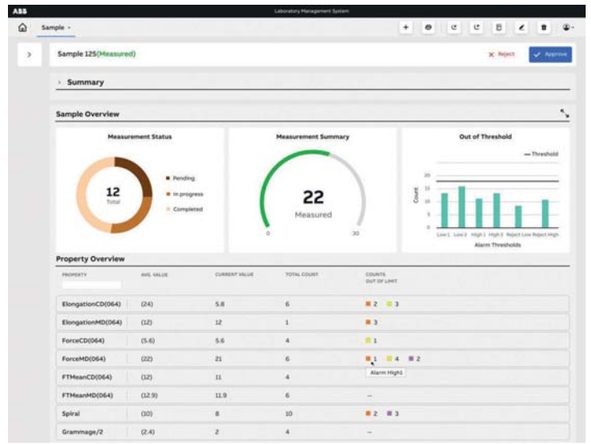
"The new TwinDrive double unwind enables us to make yet another important contribution to achieving an even more efficient and sustainable paper manufacturing process," says Matthias Wohlfahrt, product manager at Voith Paper. "This innovative system allows our partners and customers to benefit from high production capacities that make an important contribution to the overall efficiency of the plant. This applies to new facilities and also, in particular, to rebuilds if the existing winder is being operated at the limits of its capacity and has previously prevented an increase in production."

More information from www.voith.com/TwinDrive.

Rapid analysis of paper testing lab information

The latest automated data acquisition and laboratory reporting system from ABB is said to offer pulp and paper manufacturers rapid analysis of lab quality information, with reliable data storage, management and reporting.

Purpose built for paper testing laboratories, the scalable, web-based L&W Lab Management System replaces ABB and other legacy systems, halves procedure times, and tailors reporting to users' specific workflow preferences.



The system collects, analyses and reports on information from lab instruments, as well as ABB's L&W Autoline automated paper testing system. It compares up to four paper properties and plots trends against previous batches. With instruments connected directly through a local area network, information is immediately accessible through any web-browser equipped device, with a dashboard that shows sample data, trends, historical references and key performance indicators. This eliminates the need for desktop PCs to be connected to each instrument.

"Our new system is purpose-built for how labs operate," says Per Sandstrom, head of lab and process testing measurements for ABB pulp and paper. "It will significantly reduce the manual work and IT infrastructure which is typical for lab operations in many mills. This is a tool that will help production and quality managers to immediately see and act upon a lab's quality information to improve profit potential, which is our goal for all ABB customers."

Results generated by the L&W Lab Management System can be exported as xml files to external mill-wide systems. Reports generated can also be integrated with the ABB Quality Data Management system and/or the ABB Ability Manufacturing Execution System to enable lab information to be included with other key process indicators.

Innovation award for laser roll cleaner

A roll cleaner used by printers and converters in the paper industry has earned an innovation award for Paper Converting Machine Company (PCMC), part of the Barry-Wehmiller group.

It's the second successive such award for PCMC, which specialises in the design and manufacture of converting machinery for the tissue, nonwovens, package-printing and bag-converting industries.

The 2020 FTA Technical Innovation Award was presented during a Virtual FORUM for PCMC's newly launched Meridian Elite laser anilox roll cleaner.

The patented cleaner is said to eliminate hot spots and offers the fastest cleaning cycles in the industry, making the device more efficient for printers and converters. It also uses a cloud-based database: after a roll is cleaned, the information is logged into the roll inventory database and can be accessed locally or in the cloud using an interactive roll reporting dashboard.

For more than 20 years, the FTA Technical Innovation Award has recognised the most innovative and impactful technologies for the ever-evolving package printing and converting industry. Winners include innovative technologies that utilise the flexographic process or have been designed specifically to enhance flexographic printing.

"We are beyond excited to receive an FTA Technical Innovation Award once again," said Rodney Pennings, PCMC's sales director for printing, coating and laminating. "Our laser team has worked extremely hard to develop the Meridian Elite over the past year. It is an innovation that we are very proud of, and we appreciate the accolades within the package printing industry."

Productivity increased at Kuwait mill following a dryer rebuild

Capacity has been increased and energy consumption reduced on Gulf Paper Manufacturing's PM1 packaging grade machine following a rebuild of the dryer by Toscotec.

One of three production lines at the Mina Abdullah paper mill in Kuwait, PM1 produces mainly fluting medium, test liner and white top liner, using 100 per cent recycled paper.

Ghaleb Al Hadhrami, Gulf Paper Manufacturing's projects and development manager, explained the reasons behind the dryer rebuild: "First and foremost, we aimed to increase production. Secondly, we wanted to improve the quality of the fluting and test liner we were manufacturing. Thirdly, we wanted to reduce downtime and maintenance costs to a minimum. And finally, we wished to do a major upgrade of PM1 in order to equip it with state-of-the-art technology."

Gulf Paper's Ghaleb Al Hadhrami: equipping state-of-the-art technology

Gulf Paper Manufacturing achieved three goals, says Al Hadhrami: "First, in terms of time schedule, the machine downtime was implemented precisely according to the GANTT project timetable that Toscotec provided at the beginning. In the end, PM1 was started up ahead of schedule.

"Second, in terms of our targets, within two months from start-up, the production increased by 15 per cent and we expect to achieve an increase of over 20 per cent within the next few months after removing the stock preparation bottlenecks we currently have.

"Third, the dryer section efficiency we achieved with the new TT SteelDryers and the steam and condensate removal system is higher than we predicted."

Founded in 1978, Gulf Paper Manufacturing now operates two mills, the other being the Ameer Paper Mill in Jebel Ali, Dubai. Capacity is 70,000 tons a year with 70 per cent of that exported to Gulf Cooperation Council countries.

New tissue line starts up in Mexico

A new 100 tons-per-day tissue machine has been started up by Grupo Corporativo Papelera (GCP) in Mexico.

The iDeal 2000S machine was built by Italy's A.Celli with a web width of 2.65 metres, a working speed of 2,000 metres per minute, a 16-ft forged Yankee, and is operated with an Extreme Automation DCS System.

The DCS system enables the machine to be monitored autonomously with remote assistance from A.Celli technicians.

"The A.Celli team showed great flexibility, managing to complete a highly customised project on an engineering and assembly level," says a representative of GCP.

"Despite the very critical global conditions and with the extraordinary support and expertise of the Grupo Corporativo Papelera's staff, the A.Celli team did not lose concentration, being able to manage the paper to the pope and make the first reel a few hours after start up."

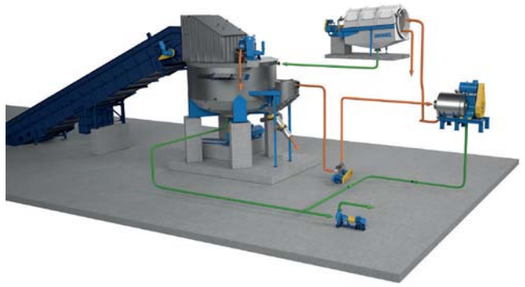
New corrugated medium line for UPPC in the Philippines

United Pulp and Paper (UPPC) is having a line installed by Andritz for the production of corrugated medium at its Calumpit mill, near Bulacan in the Philippines.

The new line will process old corrugated cardboard (OCC) and have a design capacity of 870 admt/d when it starts up as scheduled in the fourth quarter of 2020.

The pulping system comprises a FibreSolve FSR pulper with FibreGuard detrashing system. The layout of the detrashing system features an elevated FibreGuard detrasher above the drum screen, type FibreWashDrum, to ensure easy and efficient reject removal. Fractionators and fine screens will be equipped with newly-developed PrimeRotors to remove stickies efficiently and at lower energy consumption compared to conventional rotor types.

UPPC's parent company Siam Kraft Industry has already had two complete new lines and rebuilt several OCC systems installed through Andritz (China) Ltd.



Paper making lines ordered for Sun Paper's Beihai mill

A fine paper making line with stock preparation, an extensive scope of automation and a recovery boiler is being supplied by Valmet to China's Sun Paper as part of the greenfield mill project at Beihai announced in July 2019.

The PM1 high-capacity paper line is being designed to produce high-quality wood-free uncoated paper (WFU) grades. Both the line and the recovery boiler – designed for high power and low environmental impact – are expected to start up in 2021 in a project worth around €140 million. At another Sun Paper site, a stock preparation line is being supplied.

To be constructed in two phases over five years, the new mill at Beihai will eventually have a total pulp and paper capacity of 3.5 million tonnes a year.

The project for the line comprises stock preparation to parent roll handling and two winders with related air, chemical and process systems, and start-up packages for spare parts, consumables and paper machine clothing.

Illustration of the Valmet Recovery Boiler to be delivered to Sun Paper's new Beihai pulp and paper mill.

The stock preparation includes stock lines for softwood, hardwood and bleached chemi-thermomechanical pulp (BCTMP), broke collection, stock mixing and an approach flow system.

The 11.15-metre wide (wire) machine will produce wood free uncoated paper grades in the basis weight range of 50-100 g/sqm. The design speed of the machine is 1,800 m/min, and it will produce 500,000 tonnes of paper a year.

A subsidiary of Shandong Sun Holdings Group, Sun Paper has two mills in China with around four million tonnes/year (tpy) of paper and board capacity and 1.3 million tpy of wood pulp capacity. The company also operates a mill in Laos with a 300,000 tpy dissolving pulp line and a 400,000 tpy recycled pulp line.

Fei Da, recovery island project manager at Sun Paper, commented: "Our overall target of the project is to build a world-class mill. We wanted to choose advanced and reliable technology that is safe to operate. We chose Valmet based on the good cooperation in our previous projects. Valmet also met our targets well."

Jussi Mäntyniemi, vice president of the recovery business unit at Valmet, added: "With our proven boiler technology, we were able to meet our customer's tight requirements for high efficiency and low emissions. In this project we will utilise our global network, with a major part of the project management, manufacturing and purchases to be done locally in China and engineering in other Valmet locations."

Key technologies agreed for Metsä Fibre's Kemi bioproduct mill

A preliminary agreement has been signed by Valmet to provide key technologies for Metsä Fibre's planned Kemi bioproduct mill in Finland.

Plans are for the mill to have an annual pulp production capacity of 1.5 million tonnes along with various other bio-products when it starts up at the beginning of 2023. Metsä Fibre will make a decision on the project during the autumn of 2020.

The scope of the Valmet order covers all main process islands and automation systems and will have a value of around €375m.

"We have set high environmental, material and energy efficiency targets for the Kemi bioproduct mill," says Ismo Nousiainen, chief executive of Metsä Fibre. "Valmet has been able to offer us the technology to reach these targets. Our good and long cooperation with Valmet creates a good foundation for a successful execution of this mill project and for the high performance of the bioproduct mill throughout its whole lifecycle."

Pasi Laine, chief executive of Valmet, added: "During our long cooperation with Metsä Group and thanks to our successful innovative technology delivery to the Äänekoski bioproduct mill, we have been able to build a strong relationship that has formed an excellent basis for our cooperation also in this new planned project."

According to the agreement, Valmet will deliver the full production process from wood handling to ready pulp bales, as well as automation system for the whole mill including features from Valmet's Industrial Internet systems. Additionally, the project would include a smaller rebuild of the existing pulp mill.

"The mill will feature leading process technology and the most advanced automation systems including the latest developments in our continuous cooking technology, to reach excellent energy efficiency, high end-product quality and high environmental performance," says Bertel Karlstedt, president of pulp and energy business at Valmet.

"In addition, with our wash press technology, we provide a solution to manage low effluent flows and chemical oxygen demand levels."

Paper machine rebuild for Mopak mill in Turkey

Turkey's Mopak Kağıt Karton is having the PM3 paper machine at its Dalaman mill rebuilt by Andritz to provide more flexibility and a wider range of products.

The rebuild, which is the first part of a multi-stage project, will increase the mill's capacity to 500,000 tons per year. Start-up is scheduled for the first quarter of 2021.

Production will be converted from coated board grades to lightweight coated and uncoated White Top Testliner with high strength and gloss values, as well as coated board and grey board, using 100 per cent or partial waste paper.

In addition, PM3 will be able to produce virgin pulp-based light/heavy coated and uncoated board as well as offset printing papers. The machine has a working width of 4.34 metres and a design speed of 600 metres per minute.

Managing director of Mopak Kağıt Karton Ruhi Molay says: "The upgraded PM3 offers us a new dimension. The rebuild will not only increase our capacity, but also our flexibility as we will be able to offer board grades for a broad range of applications."

The Mopak Group, which began paper production in 1926, is today one of the largest paper and cardboard manufacturers in the Middle East and the Balkans and a leading supplier to the Turkish paper and cardboard sector.

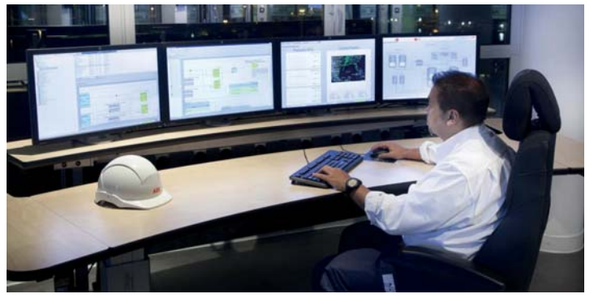
Automation and power control systems for New-Indy's Catawba Mill

Automation and power systems will be provided by ABB for New-Indy Containerboard's Project Columbia paper machine rebuild in South Carolina.

New-Indy Containerboard, a leading US supplier of high-quality recycled containerboard for the corrugated box industry, is rebuilding its PM3 paper machine at the Catawba Mill to diversify its product capabilities.

The new technology and equipment being installed by ABB comprises paper machine and winder machine drive systems, Ability System 800xA Quality Control System, Ability System 800xA Open Control System, L&W Autoline for automated paper testing, as well as process motors and power products equipment.

ABB says the integration of these systems will enable a single view of all production activities to ensure the highest levels of process efficiency, product quality, power stability and equipment reliability.



"The acquisition of the Catawba Mill and additional investment in its infrastructure will establish one of the most diverse and efficient mill operations in the industry," said Rick Hartman, operations chief at New-Indy Containerboard. "We are excited about the prospects for this mill and the opportunity to supply lightweight kraft linerboard to the industrial packaging marketplace. Our investment in the Catawba Mill will further strengthen our strategy to be the best company at serving the increasing needs of our customers."

Tissue rewinder upgrade at Kimberly Clark in Malaysia

The TM2 tissue line at the Kluang Johor Mill of Kimberly Clark Products Malaysia has been upgraded by Italy's A.Celli with a new off-line shaft puller and a new set of expandable spools, in combination with the upgrade of the rewinder slitting unit.

The upgrade follows an upgrade of the mill's TM1 rewinder and other tissue line equipment.

The TM2 project involved updating the core handling system downstream of the pope reel with an off-line shaft puller. An automated process, it enables the customer to improve and accelerate the shaft extraction from the mother roll and improve personnel safety. The rebuilding of the TM2 line was completed with the upgrade of the rewinder slitting section with a modern and efficient knives system.

Dewatering system for Frohnleiten mill uses latest technology

A dewatering system for the Refiner Mechanical Pulp (RMP) process at Mayr-Melnhof Karton's mill in Frohnleiten, Austria, is being supplied by Andritz, with start-up is scheduled for the fourth quarter of 2020.

The process will use a Vertical Screw Thickener (VST) in which pulp is fed in from the top and then compressed and dewatered as it moves downwards. The self-filling and gravity-assisted dewatering principle enables higher throughput and pulp dryness because the available screen area is fully used.

The system also comprises a dilution conveyor, MC pump including standpipe and a TurboMix agitator. Automation, instrumentation, engineering, mechanical installation, commissioning and start-up supervision are also part of the project.

At the Frohnleiten Mill, the RMP with freeness of 350ml is dewatered from an inlet consistency of 3.5 per cent to 25 per cent consistency at the discharge in one unit. The pulp is then stored at a consistency of 10 per cent in a new pulp storage tower that feeds the existing board machines.

The existing RMP system was supplied by Andritz in 1996 and processes a mixture of wood chips containing spruce, larch and fir as raw material for the mill's own board machines producing coated recycled board. Mayr-Melnhof Karton is the world's leading producer of coated recycled cartonboard.

Valmet project round up

Valmet is supplying paper making and automation systems to a number of its global customers.

- In the Republic of Korea, Valmet will deliver a new sizing section with a hard nip sizer to Asia Paper Manufacturing at Sihwa Mill. The main target for the rebuild of PM1 is to increase strength properties of produced container and gypsum board grades. The start-up of the rebuilt paper machine is scheduled for the second half of 2021.
- In India, Valmet will supply key board making technologies to Sri Andal Paper Mills for its new containerboard making line, located in Tamil Nadu.

"It was vitally important for us that the management-level relationship with Valmet was very good. Valmet has a strong reputation, and we trust that Valmet's technology will help us to reach our high-quality targets," says Palanisamy Subramaniam, managing director of Sri Andal.

The containerboard segment in India is quite fragmented and largely utilizes Asian technology for board making. Sri Andal is aiming at producing high-quality containerboard with tangible efficiency improvements to enhance its competitiveness.

- In China, Valmet will supply DNA automation systems to Shandong Sun Paper Industry. Two systems will be installed paper machines PM 39 and PM 40, enabling the lines to increase availability, production efficiency and optimise operation.

"Valmet's automation system is user-friendly, which allows our operators to easily run two new paper machines," says Wenchun Wu, project director at Sun Paper.

- In Finland, Valmet will supply automation technology to Stora Enso's Oulu Mill for the paper machine (PM7) grade conversion project.

"We have had a long-term cooperation with Valmet in Oulu since 1991 and we are pleased to continue working together in this strategic project. We also value Valmet's strong local presence here in Oulu," says Ari Saarnio, project director at Stora Enso.

Engineering services for pulp mill in Brazil awarded to Pöyry

Engineering consultancy Pöyry has been awarded a contract by LD Celulose SA for services during the construction of the new 500,000 tons per year dissolving pulp mill in Brazil.

The contract is for engineering, procurement and construction management (EPCM) for the balance of plant (BOP) at the mill, which represents an investment of US$1.3 billion for LD Celulose SA, a joint venture between Duratex and Lenzing group.

The services provided by Pöyry include interconnections between all process areas, turbo generators and steam distribution systems, the water cooling centre and other complementary systems.

The pulp mill will be built in Duratex's forest area in Triângulo Mineiro (MG), with all production going to export, and supplying Lenzing group's operations in Europe and Asia.

Luís Künzel, chief executive of LD Celulose SA, says that the mill will bring a positive socioeconomic impact throughout the region. "Our intention is to benefit the municipalities that comprise the hub, providing opportunities in various sectors," said Künzel. "We are committed to working with the best environmental practices, and Pöyry's expertise and ability to provide sustainable engineering solutions make it the ideal partner to lead this process, from the initial stages of the project."

Fábio Bellotti da Fonseca, president of Pöyry in Brazil, added: "We are very proud to have been awarded this important assignment, which reflects the solid evolution of this trusted partnership, and leading solutions for generations to come."

Expansion for JSC Yarpaper's recycled fibre line

Russian paper and cardboard maker JSC Yarpaper is having the recycled fibre line at its Yaroslavl mill extended by Voith.

The order includes BlueLine stock preparation components such as a protector system, HiClean HCL5 EcoMizer cleaner system, thickener EFK and several IntegraScreens for coarse screening, fractionation and fine screening.

The extension will increase the mill's output of recycled fibre to 270,000 BDT/day. It will also improve quality and stability of waste paper for Yarpaper's PM1 which produces testliner and fluting in the range of 90 to 160 gsm. Basic engineering, process pumps and site services will also be provided by Voith.

The protector system, based on InduraHiClean high consistency cleaners, will remove heavy contaminants in a two stage system. In the first stage, two cleaners are operating with a continuous reject flow into a sedimentation tank. Discharge of the contaminants is carried out with a heavy reject trap.

The remaining heavy contaminants are removed by a second stage cleaner, which is operating with an inlet stock consistency of around 1.3 per cent. Besides the heavy contaminants, smaller particles such as sand or stones are removed in a safe way. With the protector system, subsequent equipment in the process line will be protected from wear resulting in reliable and sustainable operation of the plant.

"By choosing Voith, one of the major process suppliers for the pulp and paper industry, we made sure that the ambitious project goals will be fully achieved," says Sergey Dotsenko, chief executive of JSC Yarpaper.

Founded in 2003, JSC Yarpaper specialises in paper and cardboard made from 100 per cent renewable raw materials, certified by the FSC. It has capacity to yearly make 55,000 tons of corrugated paper in the range of 100-140 g/sqm and cardboard test liner in the range of 110-150 g/sqm.

Orora renews board line maintenance agreement with Valmet

A multi-year Mill Maintenance Outsourcing (MMO) agreement has been renewed between Valmet and Orora Ltd that covers the B9 board making line at the Botany Mill in New South Wales, Australia.

Also signed is a performance agreement that covers clear and systematic production and maintenance improvements. Both agreements include Valmet Industrial Internet (VII) systems that provide a live link between customer and Valmet experts for process optimisation.

"Valmet is one of our key performance development partners, supporting B9's operation and improvement since the start up in 2012. We have worked collaboratively since then with progressive improvements and achievements in key areas such as productivity and cost reduction. This is the second renewal of our MMO and Performance Agreements and we look forward to further success in our cooperation with Valmet. Our objective is to ensure the B9 facility becomes an industry benchmark in all areas of efficiency and cost," says Craig Nicol, general manager of operations at the Botany Mill.

Speciality paper upgrade at UPM Nordland ramps up

UPM says that it is "ramping up" the conversion of its PM2 at Nordland in Germany from fine paper to speciality grades.

The conversion, announced in 2018, enables production of a wide range of products driven by sustainability, such as glassine, kraft and barrier papers. Designed capacity of Nordland PM2 is 110,000 tonnes.

"With the help of new capacity from UPM Nordland in Germany, we can support our customers' sustainability goals even better. UPM Specialty Papers can help replace non-renewable materials with recyclable solutions from sustainably managed forests," says Jaakko Nikkilä, executive vice president at UPM Specialty Papers.

"The new capacity from Nordland will further improve availability of our most recent innovations for labelling and packaging. Customers also have access to a stable supply of paper from UPM's extended network of world-class mills."

Reel and winding technology upgrade for Metsä Board's Kyro mill

Reel and winding technology and associated equipment have been ordered from Valmet for Metsä Board's Kyro mill in Finland.

After finalising the deal (from left): Ari Kiviranta, Mika Sainio, Jarno Lehtonen, Marko Heikkilä (all from Metsä Board), Marko Korpinen and Sami Anttilainen (both from Valmet)

As part of a rebuild, a new reel and winder with an automatic transfer rail connection will be installed to modernise the KK1 board machine. The start-up is scheduled for the second half of 2021.

With the new parts the 3.45m reel-width machine will have a design speed of 800 metres per minute for the production of folding boxboard grades with a basis weight range of 170-380 g/sqm.

"Metsä Board's Kyro mill produces high-quality coated folding boxboard and the new eco-barrier paperboard. We wanted to modernise the boardmaking finishing area and eliminate bottlenecks to meet the capacity needs of today and the future. Another important factor was reducing the risk of board caliber loss. Valmet's reeling and winding solutions have features that fit this purpose well," says Jarno Lehtonen, project manager at Metsä Board.

New line in Spain for 100% biodegradable wet wipes

Spanish paper maker Papel Aralar has ordered a new line for speciality paper production from Voith and nonwoven fabric expert Trützschler Nonwovens.

The PM5 has been developed as a joint project specifically for wet wipes with delivery planned for September 2020. The wet wipes will be plastic-free, flushable and biodegradable.

Voith will supply its HydroFormer, one of the main components of the new system, in which the suspension is heavily diluted to produce nonwoven materials made completely of cellulose, a renewable resource.

In addition to the HydroFormer, Voith will also supply the stock preparation system, a master reel, and the wet end process for the new system constructed in accordance with the Process Line Package (PLP). A comprehensive automation and control package is also included in the delivery.

Trützschler Nonwovens completes the production process with its AquaJet technology for spunlacing and a multi-drum dryer.

Papel Aralar is promoting its new range of wet wipes under the Araflush brand name. Founded in 1936 at Amezketa, the family-owned paper maker has four production lines.

New appointments at Stora Enso

Stora Enso has appointed new heads to its Wood Products and Packaging Solutions divisions.

David Ekberg was made executive vice president and head of Packaging Solutions from the beginning of April, while Lars Völkel becomes executive vice president and head of Wood Products from the beginning of July. Both will also be a member of Stora Enso's group leadership team.

Ekberg has been acting head of Packaging Solutions since last December and was previously head of Corrugated Nordics. Before joining Stora Enso in 2017, he held several leadership positions at Climeon and Ericsson.

Ekberg commented: "I am truly excited to take on this role to accelerate our Packaging Solutions business. Together with our customers and partners we will bring even more efficient and innovative renewable packaging solutions to the market. By replacing plastics and reducing carbon dioxide emissions we can do good for the planet and create superior shareholder value."

Lars Völkel, new head of Stora Enso's Wood Products division

Lars Völkel is currently at Ambibox GmbH, a renewable energy & electronic vehicle charging company in Germany. Previously he was chief executive at Swiss-based Franke Kitchen Systems, and chief executive of Poggenpohl at the European kitchen group Nobia. He has also held various managerial positions at Electrolux.

Stora Enso's chief executive Annica Bresky said: "Lars will bring us valuable commercial experience with his solid international background in leadership and experience in operations. I also appreciate his proven track record in business transformation, in leading businesses to profitable growth through business model innovation and digitalisation."

From the beginning of 2020 Stora Enso merged its containerboard business with the Consumer Board division, creating a new Packaging Materials division. The remaining business in Packaging Solutions, together with the recently created Formed Fiber unit, constitute a more focused Packaging Solutions division.

David Ekberg, new head of Stora Enso's Packaging Solutions division

Bengt Åkerblom wins this year's Arne Asplund award

The Arne Asplund Mechanical Pulping Award for 2020 has been granted to Bengt Åkerblom, from Vårby in Sweden, the owner and founder of Dametric AB.

The award is endowed every second year by The Arne Asplund Mechanical Pulping Award Foundation to promote the development of new technology for the manufacture of high-yield pulp.

Presentation of the award was planned for 9 June, at the International Mechanical Pulping Conference which is hosted by The University of British Columbia at Vancouver in Canada this year. This event has now been postponed and the prize will be presented on a later occasion.

Award winner Bengt Åkerblom

Åkerblom has devoted his professional life to developing, constructing and providing the pulp market with equipment for process measurement and control, particularly for the mechanical and chemi-mechanical pulping industry. He is the principal owner and chairman of Dametric, which produces and markets his various inventions.

Founded in 1985, the Arne Asplund Mechanical Pulping Award promotes the development of new technology for the manufacture of high-yield pulp, and commemorates the contributions made by Dr Arne Asplund to the pulp and paper industry worldwide.

Dedicated Service to Forestry Award for Martin Gale

Martin Gale, chairman of BSW Timber, was the winner of the Dedicated Service to Forestry Award at Confor's annual dinner held earlier this year in Edinburgh, Scotland.

The award, seen as the most prestigious in the forestry and wood processing industry, was presented by Fergus Ewing MSP, Cabinet Secretary for Rural Economy and Tourism in the Scottish Government.

After accepting the Award, a large wooden bowl hand-crafted by Angus Clyne, Gale said the industry had a very bright future because "wood was the raw material of the 21st century and the 21st century needs more trees".

A series of senior appointments followed after Martin was made Managing Director of Shotton Paper in 1998, the same year he joined the BSW Board as a Non-Executive Director.

Martin Gale awarded for service to the forestry industry

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Improve your press section efficiency!
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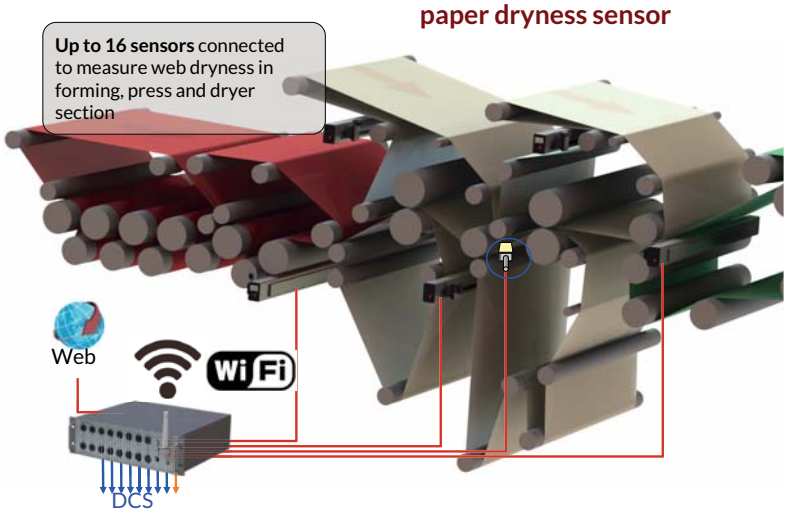
Using a **proprietary microwave technology**, it is developed to **overcome the typical limits of the NIR (near-infrared)** sensors.
SmartScan™ is available both for **fixed point positions or traversing web scan**.
To save hundred of thousands of Euros in energy costs, stop collecting samples, choose the safe accuracy of **SmartScan™** technology.



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