

TISSUE WORLD

Miami

Trade Show & Conference

Miami Beach Convention Center,
Miami Beach, Florida, USA
www.tissueworld.com/miami

Conference Theme

WHEN BEST IN CLASS ISN'T GOOD ENOUGH

Identifying Hidden Dynamics to
Optimize Business Performance

CONFERENCE GUIDE

Conference

MARCH 20 – 23

Trade Show

MARCH 21 – 23

CELEBRATING 25 YEARS

Portfolio

TISSUE WORLD

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TWM
TISSUE WORLD MAGAZINE

TISSUE WORLD

Miami

WELCOME TO TISSUE WORLD MIAMI CONFERENCE

CELEBRATING
25 YEARS

Dear Tissue Industry Professional,

Since the first edition of Tissue World in Miami in 2002, we have worked to grow the event into a genuine focal point for the industry.

This year was a moment to reflect on what the event needed to deliver to keep its place as the key gathering of Tissue professionals in North America.

We are proud to present a new approach to the conference. I believe this, in combination with over 200 exhibiting companies, provides you with a unique platform for learning and business exchange.

MARCH 21

Business and Management Day

Interdependencies in today's global market are driving us towards a knowledge based economy. To understand interdependencies, we need to compare expertise from our mature industry with fast moving trends influencing the wider economy. Combining and connecting the complex web of interactions, from shifts in global trade and trends, to tissue market forces, to core operations inside production facilities, our re-formatted program will provide expert insight to help shape business strategy. Following a morning of thought-provoking presentations, an afternoon of Deep Dive Sessions will provide an interactive forum for detailed examination of key topics raised, and the interdependencies between them.

MARCH 20

Yankee Operations Workshop: Continuous Improvement

In a highly competitive market where step-change improvements in processes are typically no longer possible, small steps of continuous improvement are more important than ever. An expert panel focused on continuous improvement will discuss such ideas as Yankee safety, Yankee performance, crown optimization, Yankees' interaction with its technical environment and the various benefits of Yankee coating products.

MARCH 22 - 23

Technical Sessions 1 - 7

Industry peers will present best practices, address challenges and provide solutions to tissue paper production through on-point and tangible presentations. Participants will gain competitive advantages and leave each technical session with a deeper understanding and new, actionable ideas about product quality, operational efficiency, energy savings, fibers, Industry 4.0, converting, chemicals, sustainability and regulatory updates.

Sincerely,
Agnes Gehot



Agnes Gehot
Deputy Event Director
Tissue World

With special thanks to the Advisory Board

The Tissue World Advisory Board is compiled from experts in the tissue industry. These experts work with the Tissue World Miami team to ensure the quality and relevance of the conference content by providing their guidance and expertise.



Patrick Boateng
Leader - Global Sourcing
The Kroger Co., USA



Mario A. García Franco
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Steve Edwards
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John Holton
Application Engineer
BTG Americas Inc., USA



CONFERENCE ROOM

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password is case-sensitive

MARCH 20

Yankee Operations Workshop: Continuous Improvement

1:00 pm - 5:00 pm

12:00 pm	Registration and Welcome Coffee
1:00 pm	Opening remarks by session moderator: John Holton , Application Engineer, BTG Americas Inc., USA
1:10 pm	Yankee steam system optimization: Mike Soucy , President, Kadant Johnson Systems, USA
1:35 pm	Energy optimization of the Yankee dryer hood: Alfredo Sarli , Technical Sales Manager, Air Systems – NA, Voith Paper Inc., USA
2:00 pm	Yankee press load verification: Dan Ludden , Tissue Services Manager, BTG Americas, Inc., USA
2:25 pm	Panel Q&A
2:45 pm	Coffee Break
3:15 pm	Crown optimization: Clive Butler , Product Manager for Yankee Dryer, A.Celli Paper, UK
3:40 pm	Seeing the bigger picture – the Yankee and its environment: Michael Jesse , Product Manager Steel Yankee Dryer, ANDRITZ AG, Austria
4:05 pm	Widening the operating window in premium quality Tissue grades: Jerome J. Banaszynski , Strategic Marketing Manager, Tissue & Towel, Solenis LLC, USA
4:30 pm	Panel Q&A
5:00 pm	Closing remarks

MARCH 21

Business and Management Day When Best in Class isn't Good Enough Identifying Hidden Dynamics to Optimize Business Performance 8:30 am - 5:00 pm

7:30 am	Registration and Welcome Coffee
8:30 am	Opening address: Optimizing Business Performance in the New Economy: Michael Jackson , Global Professional Speaker, South Africa
	Opening remarks by Content Advisor: Colm Clarke , Partner, Exempla Management & Consulting, Belgium
8:50 am	A New NAFTA: What's Next? Suzanne Blanchet , Strategic Advisor, Canada
9:15 am	China's Industrial Strategy: Outlook and Implications: Rodger Baker , Vice President of Strategic Analysis, Stratfor, USA
9:40 am	Tackling Water Scarcity with Big Data: Julie Lindley , Marketing Director, Nalco, An Ecolab Company, USA
10:05 am	Consumer Tissue in North America: Operating in a Market Ruled by Fundamentals: Svetlana Uduslivaia , Head of Industry Research, Euromonitor International, USA
10:30 am	Coffee Break
11:00 am	Supply Side Dynamics: Esko Uutela , Principal, RISI, Germany
11:25 am	Consumer Trends: What's in Store for 2018 and Beyond: Jordan Rost , VP, Consumer Insights, Nielsen, USA
11:50 am	Today's Retail Realities: What Does It Take to Compete? Patrick Boateng , Leader – Global Sourcing, The Kroger Co., USA
12:15 pm	Wrap up and introduction to Deep Dive Sessions
12:30 pm	Lunch Break (provided in restaurant - Exhibition Hall)
1:45 pm	Deep Dive 1: Global Trade Shifts- Sourcing and Supply Chain Impacts Moderator: Jonathan Roberts , Partner, Pryor Roberts Communications, UK Panelists: Donna Harman , President and CEO, American Forest & Paper Association (AF&PA), USA; Suzanne Blanchet , Strategic Advisor, Canada; Rodger Baker , Vice President of Strategic Analysis, Stratfor, USA; Esko Uutela , Principal, RISI, Germany
2:35 pm	Deep Dive 2: Big Data, Big Impacts? Moderator: Stéphane Rousseau , Vice-President, Services and Major Projects, Cascades Tissue Group, Canada Panelists: Julie Lindley , Marketing Director, Nalco, An Ecolab Company, USA; Kent Nika , Sales Manager, Valmet; Dr. Sudipta Dasmohapatra , Director, Masters in Statistical Science, Duke University, USA
3:25 pm	Coffee Break
3:45 pm	Deep Dive 3: They Want It All and They Want It Now – Customers in Focus Moderator: Michael Jackson , Global Professional Speaker, South Africa Panelists: Patrick Boateng , Leader - Global Sourcing, The Kroger Co., USA; Shaw Shahery , President/CEO, Convermat, USA; Jordan Rost , VP, Consumer Insights, Nielsen, USA
4:35 pm	Wrap up, introduction to Technical Sessions
7:00 pm	Tissue World Miami 2018 Gala Dinner and Awards Presentations.

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MARCH 22

Technical Sessions

1 - 4

8:20 am - 5:10 pm

7:30 am	Registration and Welcome Coffee
8:20 am	Opening remarks by session moderator: Jonathan Roberts, Partner, Pryor Roberts Communications, UK
Technical Session 1 – Operational efficiency and energy savings	
8:30 am	When a vision comes true – the world’s most modern tissue pilot plant: Klaus Gissing, Vice President Tissue & Drying, ANDRITZ AG, Austria
8:50 am	Recent achievements in TAD technology: Stefano Marengo, R&D Director, Toscotec S.p.A., Italy
9:10 am	Maintenance director plan on deployment of new installations: Bruno Fabiano, Development Engineer, EGF Engineering, USA
9:30 am	The next level of environmental friendly Tissue production: Marcos Scheil Gonçalves, Sales & Application Manager, Voith Paper Máquinas e Equipamentos Ltda., Brazil
9:50 am	New opportunities in safety, quality, service to end users and profitability through integration & automation: William A. Nelson, President, Electric80 Inc. USA & Electric80 S de RL, Mexico
10:10 am	Different vacuum system concepts for new Tissue machines and rebuilds: Jussi Lahtinen, Sales Director, Runtech Systems Oy, Finland
10:30 am	Coffee Break
Technical Session 2 – Product quality improvements	
10:50 am	Tissue press section air and water balance: Andy Smiltneek, President, Growth Solutions Consultants LLC, USA
11:10 am	Enhanced process control through new advanced instrumentation: Frank J. Cunnane, Product Specialist, Cristini NA, Canada
11:30 am	Quality inspection machine – installation case history: Massimo Capisani, VP Operations, Pulsar America Inc., USA
11:50 am	The innovative winding concept for super soft Tissue: Mauro Della Santa, Sales Manager, Tecno Paper S.r.l., Italy
12:10 pm	Characterization of Tissue web non-uniformity and its impact on Tissue converting efficiency: Nina Deng, Scientist, Paper, Packaging and Consumer Products, FPIInnovations, Canada
12:30 pm	Lunch Break (provided in restaurant - Exhibition Hall)
Technical Session 3 – Fibers: innovations and properties	
1:30 pm	Innovative fibers for diversification of products: Joel J. Pawlak, Ph.D., Associate Professor, Director of Graduate Program, North Carolina State University, USA
1:50 pm	The effects on Tissue quality of softwood and hardwood pulp preparation: results from a pilot Tissue pilot PM trial: Paul Bicho, Manager – Optimization and Innovation, Canfor Pulp, Canada
2:10 pm	Recovered paper supply for Tissue manufacturing: Bill Moore, President, Moore & Associates, USA
2:30 pm	Understanding the effect of nanocellulose on hygiene Tissue properties: Dr. Ronalds Gonzalez MBA, Professor NCSU, Co-Director Tissue Pack Innovation Lab, North Carolina State University, USA
2:50 pm	Coffee Break
Technical Session 4 – Industry 4.0: data management, smart factory and digitalization	
3:10 pm	Value proposition for Industry 4.0: Pete Augustine, President, Fabio Perini North America, USA
3:30 pm	Dialogue with data: case study: Kent Nika, Sales Manager, Valmet
3:50 pm	The Yankee of the future today: a data analytics app for enhanced Yankee management: Ian Padley, Marketing and Applications Manager, BTG Eclépens S.A, UK
4:10 pm	Facing the future on a journey inside Industry 4.0 in the Tissue packaging: Mauro Cattani, Sales Director, TMC S.p.A, Italy
4:30 pm	Energy 4.0: enhance competitiveness by capturing all energy cost saving opportunities: Thomas W. Schulze, Market Development Manager, Solar Turbines, Switzerland
4:50 pm	Industry 4.0: journey inside the smart factory: Thomas Bentzler, Director of Sales – Paper & Tissue North America, A.Celli International Inc., USA
5:10 pm	Closing remarks
5:30 pm	Happy Hour (Exhibit Hall – Show Floor Tech Talk Stage) Join us for free flow beer and live music! Winners of the Lucky Draw and Tissue World magazine Mill Awards will also be announced during this time. Open to attendees for free.

MARCH 23

Technical Sessions

5 - 7

8:20 am - 12:20 pm

7:30 am	Registration and Welcome Coffee
8:20 am	Opening remarks by session moderator: Jonathan Roberts, Partner, Pryor Roberts Communications, UK
Technical Session 5 – Converting: improvements and optimization	
8:30 am	Converting for premium tissue in an Industry 4.0 era: Giovacchino Giurlani, Head of Technology and FuturaLab and member of the Futura Board of Management, Futura S.p.A., Italy
8:50 am	Dust control for Tissue production & converting improvements & optimization: Chris Kennington, Vice President, Ibis International, Inc., USA
9:10 am	Digital inkjet printing in-line for customized napkins: Claudio Semenza, Sales Director, OMET Americas Inc., USA
9:30 am	Sustainability opportunities related to converting adhesives: Randy Slezewski, Sr. Application Specialist, H.B. Fuller, USA
9:50 am	Coffee Break
Technical Session 6 – Chemicals: product quality and temporary wet strength	
10:20 am	Chloramine chemistry for the Tissue industry: Janet H. Woodward, Senior Technical Consultant, Buckman, USA
10:40 am	New alternative wet strength technology: Clayton Campbell, Global Tissue Business Development Senior Manager, Kemira Chemicals Inc., USA
11:00 am	Toilet Tissue paper disintegration literature review and laboratory work: David J. Castro, Staff Scientist, Nalco Water, An Ecolab Company, USA
Technical Session 7 – Sustainability, regulatory and best practices	
11:20 am	Sustainable Tissue products: a 360 view from market demand to cost savings: Shyam Ramrekha, Product Manager, UL Environment, USA
11:40 am	Regulatory Compliance... Did you do your DHA? Rick J. Klaus, Technical Sales, Osprey Corporation, USA
12:00 pm	Best practices for a safe and clean tissue machine room: Lawrence Yane, Sales Engineer, Enerquin Air Inc., Canada
12:20 pm	Closing remarks

YANKEE OPERATIONS WORKSHOP: CONTINUOUS IMPROVEMENT

March 20, 2018 – 1:00 pm - 5:00 pm

1:00 pm - 1:10 pm Opening remarks by session moderator John Holton, Application Engineer, BTG Americas Inc., USA

1:00 pm - 1:10 pm **Yankee Operations Workshop: Continuous Improvement**

The North American Tissue market continues to get ever more competitive. Our industry has matured to the point where step-change improvements in our processes are typically no longer a possibility. Therefore, we must consider small steps of continuous improvement to move processes and competitiveness forward. Each reduced break, each extra hour of blade life, each day of additional felt life, each unit of energy, each gram of extra absorbency and every meter per minute are more important now than ever. In this session, several such ideas will be presented and discussed by an expert panel focused on continuous improvement.

1:10 pm - 1:35 pm **Yankee steam system optimization**

Mike Soucy, President,
Kadant Johnson
Systems, USA

The Yankee is the heart of a Tissue machine. There are several Yankees presently operating below their peak performance. This is due to improperly sized steam system related components, undersized piping, or poor installation practices. Steam system issues can result in lower production rates and/or increased energy consumption. This presentation will review some of the critical steam system components used to optimize Yankee performance. It will include a case study with a comparison of before and after steam system performance from a production Tissue machine of a recent rebuild.

1:35 pm - 2:00 pm **Energy optimization of the Yankee dryer hood:**

Alfredo Sarli, Technical
Sales Manager Air Systems
– NA, Voith Paper Inc., USA

With energy consumption being of prime importance in keeping operating costs optimized there are a number of design considerations at the Yankee dryer hood which can have a significant impact. Hood design considerations include optimum nozzle spacing along with the use of peripheral exhaust and dynamic seals such as air knives. Optimized nozzle geometry is an important consideration along with insuring uniform air flow. Field audits also show that maximizing exhaust humidity can have the largest impact on natural gas consumption at the burners and therefore directly impact bottom-line savings. In addition, recovering heat from the hood exhaust flow stream can have an important impact on energy savings with the use of the newly developed heat recovery steam generator systems. Finally the debate over parallel versus cascading air systems will be addressed with regards to the most economical way to operate the hood's process air system. Each of these points above will be explained with supporting calculations and case study examples.

2:00 pm - 2:25 pm **Yankee press load verification**

Dan Ludden, Tissue
Services Manager, BTG
Americas, Inc., USA

There is normally a limit on the maximum linear load which can be applied to the Yankee dryer, around 500pli. This is important because: Yankee press load is a key element of the Yankee derate curve, which tells us how much internal steam pressure and how much linear press load the Yankee dryer is rated for. Beyond safety, the press load is important because the suction press roll is the most important dewatering point on a Tissue machine. Operating at the highest uniform load allowable is important to energy cost and the reduction of greenhouse gases. Until recently, there were no efficient means of measuring press load, so Tissue producers loaded the press to a calculated load curve, which might be 10, 20, or 30 years old without any idea of the actual load. Now, systems to directly measure the press load are being introduced to our industry. This is a significant safety enhancement and a technical advance. This paper will discuss a press load verification method which is both faster and more accurate than measurement systems currently being utilized, saving both machine downtime and improving the result.

2:25 pm - 2:45 pm **Panel Q&A**

2:45 pm - 3:15 pm **Coffee Break**

3:15 pm - 3:40 pm

Clive Butler, Product Manager for Yankee Dryer, A.Celli Paper, UK

Crown optimization

A poor moisture profile will cause over-drying on some areas of the web; this is wasting energy and on drying limited machines, wasting machine capacity. An optimized crown system will improve the moisture profile hence reducing energy requirements, increasing machine capacity and reduce Yankee surface wear. Understanding the reasons for crowing the Yankee and pressure rolls and the parameters used in the complex calculation can assist papermakers to troubleshoot moisture profile problems related to crowns. This paper gives an overview of the reasons for, the important parameters and some common problems associated with crowing. An array of tools are available to aid in the investigating process are listed with some examples of how they have been used to solve problems.

3:40 pm - 4:05 pm

Michael Jesse, Product Manager Steel Yankee Dryer, ANDRITZ AG, Austria

Seeing the bigger picture – the Yankee and its environment

Over the past couple of years Yankees, and thereof especially steel Yankees, have become a decisive component within the Tissue production process. They are not only the heart of the Tissue machine, being one of the major cost drivers, they are also an influential player when talking about energy efficiency and end product quality.

As Tissue production is a very complex process it is of utmost importance to “see the bigger picture”: the Yankee should not be seen as an isolated component but rather as an interactor with its technical environment. To analyze a Yankee’s performance, to improve its efficiency and to extend its life-cycle, the whole drying system – steam- or gas-heated hood, re-evaporation, press configuration – has to be taken into consideration.

This speech aims at presenting the Yankee and its interaction within this environment, highlighting decisive criteria for Tissue producers regarding energy efficiency and end product quality, as well as showing some of the latest examples of the world’s largest steel Yankees (e.g. Carta Fabril, 22 ft.) and Yankee service.

4:05 pm - 4:30 pm

Jerome J. Banaszynski, Strategic Marketing Manager Tissue & Towel, Solenis LLC, USA

Widening the operating window in premium quality Tissue grades

North American Tissue producers are facing increased competition due to changing market trends. An increase in capacity, new retail channels and the growth of private label and having creating a challenge for existing operations in both LDC and structured sheet. Market potential is higher and margin is better on premium quality products.

The production of products with premium quality is more difficult to achieve, especially while remaining cost competitive. Balancing end properties with the operating window at the Yankee can cause holes, picks, breaks, short doctor blade life and issues with edge build-up.

Solenis has developed a series of robust Yankee coating products which maintain machine runnability and Tissue quality in spite of shifting operating conditions. Doctorability, edge control and coating uniformity are the key deliverables of the Solenis program.

Three new case histories in North American bath production will be reviewed that document the results of the new CS Series products. Benefit cases are explored for both virgin and recycled producers with different machine designs and system flows.

4:30 pm - 4:50 pm Panel Q&A

4:50 pm - 5:00 pm Closing Remarks

BUSINESS & MANAGEMENT DAY

When Best in Class isn't Good Enough

Identifying Hidden Dynamics to Optimize Business Performance

March 21, 2018 – 08:30 am - 5:00 pm

8:30 pm - 8:50 pm **Opening Address on Business Change by Michael Jackson, Global Professional Speaker, South Africa**
Opening Remarks by Content Advisor Colm Clarke, Partner, Consultancy Exempla Management & Consulting, Belgium

8:50 am - 9:15 am **A New NAFTA - What's Next?**

Suzanne Blanchet,
Strategic Advisor, Canada

With complex multilateral trade negotiations following unpredictable timelines, this session will bring attendees up to speed on the latest status and outlook on the NAFTA renegotiations. In particular, we will examine potential supply-chain impacts, areas of volatility, who the winners and losers might be, and how businesses can navigate the changes.

Also in focus will be the nature of negotiation process and the approaches taken by each government – should we expect reconciliation or retaliation? Lastly, how might consumer attitudes change as a result of the new deal.

9:15 am - 9:40 am **China's Industrial Strategy – Outlook and Implications**

Rodger Baker, Vice
President of Strategic
Analysis, Stratfor, USA

President Xi Jinping has presented his ambitious vision for "China's Dream", but what will it mean for businesses in the rest of the world trading with China? This presentation will focus on China's industrial strategy, highlighting the elements business leaders should be aware of when looking at supply-chains, buying from, and selling to, China. We will also look at how China's strategy may manifest itself in short to medium-term policy shifts.

9:40 am - 10:05 am **Tackling Water Scarcity with Big Data**

Julie Lindley, Marketing
Director, NALCO Water,
An Ecolab Company, USA

Demand for fresh water is expected to exceed available water supplies by 40% by 2030. Water scarcity has been identified by business leaders as a top global risk. Industrial growth in a water-constrained world requires us to shift mind-sets and practices from water as a consumable good to a recyclable asset. Industry needs to evolve to a more holistic approach to water management, maximizing the potential of water from single application use to reuse between applications to recycling water to achieve zero discharge. The technology exists today to support this transformation. With data and insights, we can inform water management solutions to allow for cost-effective reuse and recycling while ensuring operational reliability. Julie Lindley will share how Ecolab is leveraging Microsoft's global expertise and its Azure cloud platform to harness the power of big data. She'll share how the company is aggregating and analyzing billions of data points fed from Ecolab sensors in thousands of plants, to establish world-class operational benchmarks, leverage best practices and accelerate how industries worldwide tackle water scarcity, improve water quality and increase operational performance.

10:05 am - 10:30 am **Consumer Tissue in North America: Operating in a Market Ruled by Fundamentals**

Svetlana Uduslivaia,
Head of Industry
Research, Euromonitor
International, USA

While the global retail consumer tissue market shows an estimated unmet potential in excess of 15 million tonnes, or US\$44 billion, the lion's share of this potential is found in developing markets. North America, on the other hand, with a highly saturated market and limited unmet potential, is mainly driven by fundamentals like population and GDP per capita growth.

Whilst population and GDP fall outside of the industry's influence, understanding the dynamics of incomes, spending power, and population trends, can interpret the challenges ahead and identify opportunities for targeted market reach and product development.

continued...

This presentation will focus on:

1. Growth drivers in consumer tissue in North America, with specific emphasis on the impact of GDP per capita and population growth.
2. Income trends in the context of the retail environment and product development, including success stories in value-added innovation, retail dynamics including the entry of discounters, and the future of private label in North America (will it ever reach the level of Western Europe?), consumer motivators behind the shift to online retail (based on Euromonitor surveys) and e-commerce strategies.
3. Demographic shifts in North America and future opportunities in targeted consumer communication and innovation, including the much talked about Millennials – who they are, further segmentation within this age group, their preferences and aspirations.

10:30 am - 11:00 am Coffee Break

11:00 am - 11:25 am Supply Side Dynamics

Esko Uutela, Principal, RISI,
Germany

Supply side volatility, whether driven by resource scarcity, or shifts in global trade flows, is often identified as one of the manufacturer's most demanding challenges. This presentation will cover the latest updates in key areas such as the scarcity of recycled fibers, alternatives to wood pulps, and the status of imports to North American markets.

11:25 am - 11:50 am What's in Store: 2018 and Beyond

Jordan Rost, VP Consumer
Insights, Nielsen, USA

It's been a year of eye-opening change for U.S. fast-moving consumer goods (FMCG) manufacturers and retailers. Consumers are shopping across a wider array of channels and e-commerce is taking a bigger piece of the pie. Shoppers are looking at all of the products they buy with more scrutiny and an eye towards transparency and sustainability. Across fast-moving consumer goods, nowhere are these forces converging more than with tissue and paper buying. To get to tomorrow, you can't just repeat what got you to today. So, how do you plan for tomorrow? In this session we'll discuss:

- What does the growth of e-commerce mean for tissue and paper?
- What motivates consumers to buy in-store vs. online and one brand vs. another?
- How does the brand landscape differ online vs. in-store?
- How does the transparency-minded consumer shop for tissue and paper?

11:50 am - 12:15 am Today's Retail Realities – What Does it Take to Compete?

Patrick Boateng,
Leader – Global Sourcing,
The Kroger Co., USA

The sky-high expectations of today's consumer have created a revolution in the retail industry, driving changes at an unrelenting pace.

As consumers want it all, and want their needs met right now, the challenge facing retailers is how to position their business to offer a seamless experience and connect with customers in person and online.

This presentation will focus on how manufacturers and suppliers in the tissue paper industry can engage their retail customer by providing additional value - not only in terms of price but also great convenience and exceptional customer service.

We will use examples of "When Best in Class Wasn't Good Enough", to illustrate the full value chain retailers consider when making key purchasing decisions.

12:30 pm - 1:45 pm Lunch Break (served in the Restaurant - Exhibit Hall)

BUSINESS & MANAGEMENT DAY CONTINUED

When Best in Class isn't Good Enough

Identifying Hidden Dynamics to Optimize Business Performance

March 21, 2018 – 08:30 am - 5:00 pm

1:45 pm - 2:35 pm

Deep Dive 1: Global Trade Shifts - Sourcing and Supply Chain Impacts

Having learned more on the national interests driving global trade negotiations, and having seen how some of these policies manifest themselves as sourcing and supply-chain headaches for the Tissue industry, this session is designed to dig into the issues that matter most when it comes to business planning and forecasting.

We will look at potential impacts across the Tissue value chain, which business or supply chain models are most exposed, and how these issues matter for different market segments.

Moderator:

Jonathan Roberts, *Partner*, Pryor Roberts Communications, UK

Panelists:

Donna Harman, *President and CEO*, American Forest & Paper Association (AF&PA), USA;

Suzanne Blanchet, *Strategic Advisor*, Canada;

Rodger Baker, *Vice President of Strategic Analysis*, Stratfor, USA;

Esko Uutela, *Principal*, RISI, Germany.

2:35 pm - 3:25 pm

Deep Dive 2: Big Data, Big Impacts?

With Tissue mills already embracing the latest manufacturing technology, and high degrees of automation is leveraging Big Data the next step in finding the additional efficiencies and performance improvements manufacturers crave?

This session will explore:

- State of today: what is already up and running? How has success been measured? What are the challenges and issues that have been encountered?
- What's next: short – medium term outlook – what is (or should be) possible? Are there barriers to implementing the phase of innovation?
- New business models and joint-ventures that reach outside the production facility to other stakeholders – such as the Ecolab – Microsoft collaboration, and Valmet's Industrial Internet partners Tieto and Kemira.

In addition to the technical and process benefits, we will examine management considerations, for example, looking at new business models – what does this mean in terms of the new services to exploit or questions of data ownership that these innovations bring with them.

Moderator:

Stéphane Rousseau, *Vice-President*, Services and Major Projects, Cascades Tissue Group, Canada

Panelists:

Julie Lindley, *Marketing Director*, Nalco, An Ecolab Company, USA;

Kent Nika, *Sales Manager*, Valmet;

Dr. Sudipta Dasmohapatra, *Director, Masters in Statistical Science*, Duke University, USA.

3:25 pm - 3:45 pm

Coffee Break

TECHNICAL SESSION 1

March 22, 2018 – 8:20 am - 10:30 am

8:20 am - 8:30 am Opening remarks by session moderator Jonathan Roberts, Partner, Pryor Roberts Communications, UK

TECHNICAL SESSION 1 – OPERATIONAL EFFICIENCY AND ENERGY SAVINGS

8:30 am - 8:50 am When a vision comes true – the world's most modern tissue pilot plant

Klaus Gissing, Vice
President Tissue & Drying,
ANDRITZ AG, Austria

Over the past couple of years the Tissue business has been characterized by severe competition and cost pressure. Tissue producers face several challenges, new and/or innovative solutions are rare and if there are any one seldom gets the chance to test them in advance.

ANDRITZ has reacted to these challenges and is proud to present – for the first time at an exhibition – its latest development, a Tissue Innovation and Application Center, the PrimeLineTIAC. The center, erected at the headquarters in Graz (Austria) features the latest Tissue technology – from stock preparation to the Tissue machine, pumps and automation – focusing on energy-efficient and high-quality Tissue production. Tissue producers, pulp producers, suppliers to the Tissue industry and R&D institutes can book the center for trials and networking.

The Tissue machine is totally unique. It has the utmost flexibility and features numerous configurations to test the production of dry-crepe, textured and structured (TAD) Tissue. A conventional CrescentFormer, a vertical Crescent Former (new ANDRITZ AG patented product), a C-Wrap Former, a shoe press, a steel Yankee, and TAD modules with different drying options are available for Tissue trials.

8:50 am - 9:10 am Recent achievements in TAD technology

Stefano Marengo,
R&D Director,
Toscotec S.p.A., Italy

Structured Tissue processes are nowadays entering an increasingly close connection with the request for premium paper quality and the need for reduced energy demand. Through Air Drying (TAD) is the main process for producing structured paper for Tissue and towel grades, and although the quality is far more superior to conventional processes, the energy is still high compared to standard dry crepe technologies. The TAD process develops functional properties by molding the fiber mat into a structured fabric (TAD fabric). The resulting structured Tissue product will have higher bulk and absorption due to air passing through the sheet forming a sheet with differentiated density areas. Although newer hybrid technologies have been recently introduced on the market, structured Tissue technology still represents the reference process for the production of premium quality Tissue. Latest developments in TAD process technology design can reduce the energy demand of the production maintaining unchanged the final quality targets, by means of energy recovery, reduced energy losses, and improved dewatering. Water consumption can also be reduced by means of optimized water systems and fiber recovery units.

9:10 am - 9:30 am Recent achievements in TAD technology

Bruno Fabiano,
Development Engineer,
EGF Engineering, USA

The Maintenance Master Plan aims to qualify the maintenance processes, optimizing costs and losses, identifying opportunities for gains and generating systemic results. Engefaz created and implemented the Plan in the Klabin Papéis PUMA Project, which was inaugurated in the city of Ortigueira, PR - Brazil, with an investment of 2 billion USD, capacity to produce 1.5 million tons of pulp and to generate 277MW of Electric Power. Composed of five blocks (Organizational Management, Infrastructure, Routine Management, Improvement Management, Downtime Management), the Maintenance Master Plan was implemented through three major phases of development: Implementation of the Plan and preparation of the Maintenance Management Manual; Audit the operation of maintenance and application processes of the MGM; Elaboration of Technical Working Instructions for Factory Certification in national and international standards. With the adopted strategies, among them the Master Plan, the plant obtained a record in the sector, with Extra-Prime pulp quality. Met the expected targets of volume and quality of production and performance parameters.

9:30 am - 9:50 am

Marcos Scheil Gonçalves,
Sales & Application
Manager, Voith Paper
Máquinas e Equipamentos
Ltda., Brazil

The next level of environmental friendly Tissue production

Tissue paper needs excellent properties like softness, absorbency, strength and bulk, and has to be environmental friendly manufactured.

Voith Paper has developed the new technology called TissueLev that can be applied for a first class environmental friendly tissue production. Besides the extensive set of trials at the Voith pilot facility in São Paulo, fine tuning the technology, on April 2016 an existing Tissue machine in Europe has been rebuilt and equipped with TissueLev technology. One month after the 1st machine has been upgraded, a second machine, in the same customer, has also implemented this important technology.

Due to the new Voith TissueLev technology, both machines operate in higher speed level, increase from 1500 m/min (4921 fpm) to 1800 m/min (5905 fpm) which is the drive limit. Besides of the expressive production increase, with the TissueLev technology has also achieved significant quality improvement that allows customer reduce fiber consumption and therefore reduce operational cost.

The TissueLev results: Less fibers, more caliper, better tensile in MD and C and higher elongation.

9:50 am - 10:10 am

William A. Nelson,
President, Elettric80 Inc.
USA & Elettric80 S de RL,
Mexico

New opportunities in safety, quality, service to end users and profitability through integration & automation

Elettric80 will present new technologies to improve safety, quality, service and profitability derived by maximizing integration and automation into the design of Tissue production facilities.

We will use case studies to demonstrate how smart, scalable integration and automation throughout the Tissue production facility value chain helps optimize process, product quality and ROI.

In particular, safety improves by reducing interaction between humans and machines in the production area. Product quality increases through reduction of damage in storage and shipping. Time to market improves through increased precision, punctuality and traceability of deliveries.

This all leads to higher profit because of decreased waste, raw material savings, elimination of work interruptions and less covered building space.

10:10 am - 10:30 am

Jussi Lahtinen, Sales
Director, Runtech
Systems Oy, Finland

Different vacuum system concepts for new Tissue machines and rebuilds

Overall cost competitiveness is playing more and more important role in Tissue production. Due to the rising energy prices and cost of the fresh water the both minimum energy and water consumption, or better to say maximized energy efficiency and minimized water usage are getting more and more important for all Tissue producers.

Runtech Systems has developed very efficient new Ecopump technology for the Tissue machines vacuum systems. This technology is based on the variable speed turbo blowers and it can cut the energy costs of the Tissue machine vacuum system by some 30% to 70% compared to the more traditional technologies.

In addition, the blowers are totally water free and thus fresh water consumption of the whole Tissue machine would be decreased remarkably and at the same time the water handling and/or water treatment costs of the complete vacuum system would be zero.

Due to the fully adjustable speed of Ecopump turbo the vacuum system is very easy to optimize to meet the varying operational situation of the Tissue machines which is creating superior operational efficiency of the vacuum system compared to any other vacuum systems available.

10:30 am - 10:50 am Coffee Break

TECHNICAL SESSION 2

March 22, 2018 – 10:50 am - 12:30 pm

TECHNICAL SESSION 2 – PRODUCT QUALITY IMPROVEMENTS

10:50 am - 11:10 am Tissue press section air and water balance

Andy Smiltneek, President,
Growth Solutions
Consultants LLC, USA

The second largest user of energy in the paper machine is the vacuum system. The vacuum system is used to create a pressure lower than atmospheric in the pressure roll and uhle box so the machine room air can be pulled through the felt and box cover and pressure roll shell. This is done ultimately to remove the maximum amount of water from the sheet before the sheet hits the dryer. This paper takes a novel look at the water and air in the felt as it completes one traverse through the machine. It debunks a commonly held assumption about the pressure roll and equates the water removed in the uhle box to the water added in the forming section. It also discusses the characteristic difference between vacuum created by a turbo-blower and that created with a liquid ring pump with energy implications.

11:10 am - 11:30 am Enhanced process control through new advanced instrumentation

Frank J. Cunnane,
Product Specialist,
Cristini NA, Canada

During the last year, studies were introduced that showed process control benefits that can be realized on Tissue machines equipped with newly developed instruments with traversing permeability, watter content, and temperature measurement capabilities.

Case Study One is presented for a Tissue machine on which three heads are installed, one before the pressure roll to measure total sheet and felt moisture, one after the pressure roll but before the conditioning equipment, and a third unit for after the uhle boxes, to measure and reduce the total amount of vacuum required to dewater the pick-up felt.

Another crescent former case study utilized a similar 3-head set-up to examine start-up and felt conditioning strategies. Data from this study showed that there was a bimodal distribution of energy consumption that correlated to felt moisture and felt conditioning strategies. By utilizing the lower energy-using regime, a savings of 2.4% of total drying energy consumed, was captured.

Final case study information shows data gathered on specialized TAD and Transfer fabrics which enable operators to control fabric and sheet moisture levels for the optimum in process control and energy savings.

11:30 am - 11:50 am Quality inspection machine - installation case history

Massimo Capisani, VP
Operations, Pulsar America
Inc., USA

Quatis, quality inspection machine, is the result of the application of quality controls, based on vision systems, to the Tissue converting productive process.

This machine inspects the quality of Tissue wrapped (primary and secondary packaging) and un-wrapped (BR, KR industrial rolls and folded) products. The product inspection is 100% reliable as the machine analyses every single product and is performed by dedicated vision systems. The philosophy that inspired Pulsar is to develop a machine starting from producers' needs through respecting Tissue products special requirements.

In the presentation we will explain a case history of one of the first Quatis machines for unwrapped products installed. We considered a period of time of 6 months during which our dedicated engineers collected and analyzed real data, evaluating how non-compliant products could affect the whole converting line (jam, downtimes etc.).

11:50 am - 12:10 pm The innovative winding concept for super soft Tissue

Mauro Della Santa,
Sales Manager, Tecno Paper
S.r.l., Italy

The high deformability of both mother and finished reels creates problems in rewinding super soft high volume Tissue grades, if not properly handled.

Tecno Paper has developed, and patented, rewinding solutions purposely dedicated to such "difficult to wind" products. They avoid the super soft reels are permanently deformed and the loss of bulk is huge.

The main features of the TP-Soft Touch Unwinder are two large diameter carbon fiber rolls (driving rolls) - independently driven by variable speed motors, sustaining the reel and giving it the rotation movement - and a center drive assist, still with variable speed motors, that nullifies the rotation inertia, thus avoiding any torsion effect in the structure of the reel. The accurate relieving movement is obtained by an electromechanical system.

Benefits offered by the innovative winding concept TP-Soft Touch: Reels (mother and finished) fully supported during all the process by full width driving rolls, nullification of all the inertia forces thanks to addition of center drive at unwinder, high precision NIP control thanks to special hydraulic or electromechanical relieving systems, both working in "Closed Loop" mode, with feedback from load cells, high operation efficiency, minimized bulk loss and integration with TP-Win 4.0 e TP-Service.

12:10 pm - 12:30 pm Characterization of Tissue web non-uniformity and its impact on Tissue converting efficiency

Nina Deng, Scientist,
Paper, Packaging and
Consumer Products,
FPIInnovations, Canada

Tissue converting efficiency is relatively low (40-70%) compared to Tissue machine efficiency (>90%).

Low Tissue converting efficiency is a huge bottleneck. It represents a large potential improvement area for overall Tissue manufacturing efficiency. In addition to the poor operation practices, maintenance issues and equipment failures, uniformity and variability of Tissue webs play an important role in determining the converting efficiency. To address this, we have applied a concept called "strength uniformity" which was developed for predicting the pressroom runnability of lightweight paper in the pressroom to quantify the strength uniformity of Tissue. The strength uniformity, "m factor" can be obtained from the Weibull distribution of measured base sheet strength. The higher the m value, the better the Tissue base sheet uniformity, which results in improved converting efficiency. Further work was carried out to better understand the impact of different Tissue making unit operations on strength uniformity, including:

1. Benchmarking the strength uniformity of Tissue samples from different Tissue machines
2. Quantifying the strength variation across the Tissue machine
3. Examining the effect of key factors (such as basis weight variation, creping, calendering etc.) on Tissue strength uniformity.

These results will provide some insights into how to improve strength uniformity through improving Tissue operation and some case studies will also be presented.

12:30 pm - 1:30 pm Lunch Break

TECHNICAL SESSION 3

March 22, 2018 – 1:30 pm - 2:50 pm

TECHNICAL SESSION 3 – FIBERS: INNOVATIONS AND PROPERTIES

1:30 pm - 1:50 pm

Joel J. Pawlak, Ph.D.,
Associate Professor,
Director of Graduate
Program, North Carolina
State University, USA

Innovative fibers for diversification of products

Traditionally, the use of man-made fibers in Tissue making operations has been limited by a number of factors including integration with existing Tissue making processes, and the associated loss of strength due to the poor bonding. This talk presents a novel approach to engineering fibers for improved softness. It compares currently existing tissue making fibers with a novel man-made fiber that shows improved softness and strength. The scientific background for the engineering of these is presented along with a number of examples using commercial available fiber from Eastman Chemical. This design and use of these fibers allows for unprecedented levels of softness and strength in traditional dry crepe Tissue making operations. It also allows for the market expansion of materials formed using traditional dry crepe machines in the wet-wipes space.

1:50 pm - 2:10 pm

Paul Bicho, Manager
- Optimization and
Innovation, Canfor
Pulp, Canada

The effects on Tissue quality of softwood and hardwood pulp preparation: results from a pilot Tissue pilot PM trial

Canfor Pulp supplies high quality Northern bleached softwood Kraft pulps (NBSK) to the Tissue industry. We support our Tissue customers on a technical level through trials on the Pilot Tissue Machine at the Voith Tissue Innovation Center in Sao Paulo and through research at our Innovation Centre. We have contrasted the effects of co-refining NBSK and eucalyptus pulps with the refining of the NBSK alone followed by mixing with the unrefined eucalyptus pulp. These two furnishes were run on the pilot Tissue paper machine under the same conditions. Stratified 2-layer forming was used with the unrefined eucalyptus pulp in the top layer and an NBSK/eucalyptus mix in the bottom layer. We also ran a single layer headbox simulation with a homogeneous co-refined furnish which is still common in industry. We confirmed that the co-refined furnish gave Tissue base sheets with lower bulk and softness than the separately refined furnish scenario, at the same strength. The higher freeness (CSF) of the NBSK refined furnish also improved energy efficiency. Refining the NBSK separately gives better Tissue quality than low intensity co-refining of NBSK/eucalyptus furnishes. Low intensity co-refining can be a good option for those who cannot refine separately traditional dry crepe machines in the wet-wipes space.

2:10 pm - 2:30 pm

Bill Moore, President,
Moore & Associates, USA

Recovered paper supply for Tissue manufacturing

There are a number of changes occurring in the available supply of recovered paper, a key raw material for the Tissue sector for manufacturing Tissue and towel products throughout the world. The following areas of interest will be covered in this presentation:

- Worldwide and Americas supply and demand of recovered office papers, the primary recovered paper grades used in Tissue production;
- The major issue of the declining use of printing and writing papers by the world's developed economies producing constraints on the supply of recovered fibers for deinking. This includes the use of paper in offices, the document destruction business, and printing scrap production.
- Contaminant issues in the recovered paper grades used for Tissue production;
- An outlook on future pricing of the primary Tissue/toweling grades, Sorted Office Papers, White Ledgers, and Coated Book Stock;
- Alternative recovered paper sources for use in Tissue making.

TECHNICAL SESSION 4

March 22, 2018 – 3:10 pm - 5:10 pm

TECHNICAL SESSION 4 – INDUSTRY 4.0: DATA MANAGEMENT, SMART FACTORY AND DIGITALIZATION

3:10 pm - 3:30 pm

Value proposition for Industry 4.0

Pete Augustine,
President, Fabio Perini
North America, USA

In the era of Industry 4.0, managing the entire production process becomes the true added value for the Tissue industry as a whole. Being able to define and map out a complete line to manufacture the finished product means fully understanding customers' production needs. Fabio Perini is the only company in the world capable of producing complete lines integrating converting and packaging, hence creating the product and the process together with the customer in order to optimize efficiency, reduce costs and maximize the quality of the finished product. The challenge Fabio Perini faces is to complete its existing portfolio of offers and solutions with digital elements, integrating them in the new Industry 4.0 environment with the aim of increasing customer's performance. Fabio Perini decided to interpret this challenge and the process change needed for Industry 4.0 through the Digital Tissue™ vision. The concept of Digital Tissue™ has been our guiding light also in the recent innovations that Fabio Perini has brought to the market, such as Constellation, Catalyst, All-In-One, Trolley One-touch and Weareable: Smart solutions already available as concrete answers to converting, packaging and service demands.

3:30 pm - 3:50 pm

Dialogue with data: case study

Kent Nika, Sales Manager,
Valmet

In recent years, we have seen how large volumes of data are considered as mean of increasing the performance and efficiency in various industries. Some call it "big data", others "industrial internet".

The use of industrial internet in the Tissue world has been used for many years bringing valuable insights. The amount of high quality data we can analyze and evaluate is increasing rapidly, giving us powerful knowledge and tools to increase performance. Or is it?

The big challenge is how to make sense of all information and transform it into applied knowledge, to transfer result of process analysis into recommendations that brings real value to me as a Tissue producer. It's what we can do with the data that matters, not the data itself.

This case will show how big data can be analyzed for short term trouble shooting. But also for insights which lead to better decisions and long term strategic activities to improve productivity for a Tissue production line.

3:50 pm - 4:10 pm

The Yankee of the future today: a data analytics app for enhanced Yankee management

Ian Padley, Marketing and
Applications Manager, BTG
Eclépens S.A, UK

The efficient operation of a Yankee dryer can be compromised by a number of issues all impacting the quality of the Tissue machine output, the productivity of that asset and its reliability. Modern Tissue machines have a wealth of sensors and instruments, reporting into a DCS or QCS, but the critical information is not compiled into a user friendly format to easily assess Yankee performance. Moreover, critical information on Yankee coating condition and crepe blade vibration is less often recorded, let alone aggregated and visualized.

This paper will look at how a modular application, using the very latest in data aggregation and visualization technology, can give the operator an intuitive dashboard set or 'scorecard' to monitor real time Yankee performance with some unique KPI's displayed in real time. Case histories will show how the diagnosis of operational issues is expedited by the smart algorithms and domain expertise scripted into the underlying data management platform, enhancing all aspects of Yankee performance for a positive economic impact for the user.

4:10 pm - 4:30 pm

Mauro Cattani, Sales
Director, TMC S.p.A, Italy

Facing the future on a journey inside Industry 4.0 in the Tissue packaging

TMC continues on its rewarding journey inside Industry 4.0 and develops innovative service solutions to improve production processes, changing from traditional product related services to customer centric business related services.

TMC presents the first real machine analytics platform in Tissue packaging, unlocking data and revealing business intelligence that customers can use to make an impact. Beyond words what really matters are results. Capabilities like proactive real time monitoring and anomaly detection, machine health status, condition based maintenance and automated predictive analytics are already successfully used as timely advice and intelligence to staff on site.

An independent structure has been created inside TMC Group, dedicated to design and deploy smart powerful tools securing competitiveness to TMC customers. Moreover a dedicated expert team, the TMC iCenter, provides accurate proof of how machines are performing and studies tailor made solutions, a major benefit for end users looking to keep their costs down and their overall efficiencies up high.

4:30 pm - 4:50 pm

Thomas W. Schulze,
Market Development
Manager, Solar Turbines,
Switzerland

Energy 4.0: enhance competitiveness by capturing all energy cost saving opportunities

Energy is a large part of the product cost and Solar Turbines cogeneration plants are already helping its customers to reduce this share. Typically running their combined heat and power plant, our customers are asking the following question: How can I do more? How can I integrate my heat and power production following production loads, tariffs variations, incentives and load sharing opportunities in order to maximize cost saving and enhance my competitiveness? Can I be more competitive taking advantage of the information now available with Industry 4.0? In this presentation, Solar Turbines will expose a new product, which aims to optimize the cogeneration plant management by the full integration into the production system by monitoring of external and internal parameters leveraging advantages of Industry 4.0 looking to keep their costs down and their overall efficiencies up high.

4:50 pm - 5:10 pm

Thomas Bentzler, Director
of Sales -Paper & Tissue
North America, A.Celli
International Inc., USA

Industry 4.0: journey inside the smart factory

The main goal of the new technologies proposed by Industry 4.0 is to manage production optimization with a view towards effectiveness and efficiency. These technologies find particular application in reducing waste, rejects, defects and costs, with the aim of obtaining the best results in terms of innovation, reliability, quality and optimization of investments.

To improve product efficiency and quality, it is necessary to first identify defects. To this end, A.Celli Paper has developed and applied the DMS (Defect Management System) on its machines. DMS is a system that integrates all the information received on the entire production cycle. And what's more, in the smart factory developed by A.Celli, data are traced by RFID (Radio Frequency Identification) devices that well exceed the strong limitations of previous systems. The entire reel handling and transfer process within the facilities, too, up to the automatic warehouse, follows the logical process of the plant through AGVs (Automated Guided Vehicle).

Innovation and digitalization of products and services are the flywheel for companies in pursuit of growth and competitiveness. A.Celli Group is poised to guarantee all this through a strong R&D activity focused on offering leading-edge technological solutions, time after time.

5:10 pm

Closing remarks by session moderator

5:30 pm

Happy Hour

TECHNICAL SESSION 5

March 23, 2018 – 8:20 am - 9:50 am

8:20 am - 8:30 am Opening remarks by session moderator Jonathan Roberts, Partner, Pryor Roberts Communications, UK

TECHNICAL SESSION 5 – CONVERTING: IMPROVEMENTS AND OPTIMIZATION

8:30 am - 8:50 am Converting for premium tissue in an Industry 4.0 era

Giovacchino Giurlani,
Head of Technology and
FuturaLab and member
of the Futura Board of
Management, Futura, Italy

The preference in the Americas for premium tissue including TAD is, if anything, becoming stronger. The priorities for converting are therefore to preserve bulk, softness and absorbency and to optimise the efficiency with which these high added-value products are made.

This has been an important part of Futura's recent innovation activity as it develops converting solutions which are part of an integrated, Industry 4.0 tissue production process.

Innovations presented include: a unique automatic reel handling system which is safer, more effective and less dependent on manpower; a new embossing configuration for extreme definition to preserve and emphasize bulk; dust control which minimizes downtime therefore maximizes overall equipment effectiveness (OEE); rewinding which breaks new ground in automation; and leadership in Industry 4.0 integration.

The result is a better-quality product, made more efficiently, plus the opportunity to exceed market expectations. Because advanced technology brings new product development opportunities.

8:50 am - 9:10 am Dust control for Tissue production & converting improvements & optimization

Chris Kennington,
Vice President, Ibis
International, Inc., USA

This presentation will highlight the benefits of dust and fiber control as it relates to optimizing the process of Tissue manufacturing with emphasis on the dry end of the process. The initial focus will be on improved quality of the product. Additional issues will involve worker comfort and safety as well risk assessments for fire and explosion.

Having identified the areas for optimization, the presentation will explore the points of dust generation in a typical Tissue production area. Following the location of points of generation, we will present the technology to capture, convey and filter this particulate (dust). The presentation will then present some of the technology commercially available to filter the process air and exhaust clean purified air back to the production area and/or to the atmosphere. Details on the level of filtration efficiency will be covered as well as many of the current safety design features in today's systems: How dust control can help optimize tissue production & tissue converting, an Overview Of Typical Dust Generation Points, discuss The Technology To Capture & Contain Dust, present The Different Types Of Equipment And Technical Support Available, list sources of regulations, guidelines etc. relating to tissue dust control and list testing facilities for dust analysis.

9:10 am - 9:30 am

Claudio Semenza,
Sales Director, OMET
Americas Inc., USA

Digital inkjet printing in-line for customized napkins

The request for customized product has become more and more important in Tissue market in the last few years. The possibility of printing customized napkins, with any possible subject, without additional costs and waste of time especially with short runs, opens a new era in the napkins market: this 'direct-print' system erases changeover time and costs and gives free access to creativity and innovation, enabling the impression of images with variable data with no limits.

This system is particularly interesting to converters who supply napkins to restaurants, companies, or even printers selling to private purchasers through the Web. It allows the production of different or special napkins with serial codes, QR codes, Wi-Fi access credentials, daily menus or a family picture.

Its high-technology mechanism works in a very intuitive way: a PC installed on the side of the group receives the documents graphics and processes them according to the parameters chosen by the operator. All the producer needs are the PDF files with the images to be printed and the job is ready to go. It can print with a maximum speed of 200 m/min. (656 ft./min.).

9:30 am - 9:50 am

Randy Slezewski, Sr.
Application Specialist,
H.B. Fuller, USA

Digital inkjet printing in-line for customized napkins

There are a number of opportunities for sustainability improvements related to converting adhesives. Sustainability improvements can help improve customer scorecards, obtain local utility incentives, achieve cost savings, increase productivity, and enhance the environmental responsibility of a company.

These improvements can be realized through reductions in utility usage, adhesive usage, fuel (shipping) costs, changes in chemistry, changes in application method, incorporating renewable resources, concentrated adhesives, productivity increases (asset utilization), adhesives capable of adapting to new products/process, or in combination.

The options presented here have all been proven in the Tissue market and incorporate both adhesives and application equipment. There are real-life examples that have provided, in some cases, nearly \$500,000 in savings or benefits at a single converting site.

9:50 am - 10:20 am Coffee Break

NOTES:

TECHNICAL SESSION 6

March 23, 2018 – 10:20 am - 11:20 am

MARCH 23

TECHNICAL SESSION 6 – CHEMICALS: PRODUCT QUALITY AND TEMPORARY WET STRENGTH

10:20 am - 10:40 am Chloramine chemistry for the Tissue industry

Janet H. Woodward, Senior
Technical Consultant,
Buckman, USA

Although chloramine chemistries have been utilized by public water systems since the 1930s, their use in the paper industry didn't become prevalent until the 1990s. When compared with traditional oxidants such as hypochlorous and hypobromous acids, chloramines are weak oxidants. Thus, they can be used throughout the paper-making process with little to no impact on other chemistries. They do not form trihalomethanes, a disinfection by-product. When compared with organic biocides and other oxidants, chloramines are superior in removing and preventing biofilm. Like the traditional oxidants, chloramines are impacted by reducing agents, e.g., bisulfite, and certain wet strengths, e.g., GPAMs. By determining the usage rates of these chemicals, a chloramine program can be designed for any Tissue or towel machine to provide the most economical and effective microbial control without impacting the process.

10:40 am - 11:00 am New alternative wet strength technology

Clayton Campbell
Global Tissue Business
Development Senior
Manager, Kemira Chemicals
Inc., USA

Newly developed, patent-pending Strength Activator technology allows the manufacturer to utilize GPAM chemistry in a wide pH process while maintaining high performance efficiency. This innovation allows manufacturers greater choice in determining the degree of temporary to permanent wet strength in the sheet. Now, TWS-GPAM technology offers manufacturers process efficiency benefits, as well as sheet strength enhancement options that previously were not available.

For example, commercial or away from home (AFH) towels historically use PWS-PAE resin as there has been no alternative chemistry that offers the manufacturers the required cost performance benefits until now. The act of wiping the hands or the face, for example, does not have to last more than 20 seconds. The consumer uses the towel and then it is immediately discarded. TWS-GPAM chemistry and its novel approach is now a cost-effective alternative to PWS-PAE resins. A case study will be provided for both Bath Tissue and AFH commercial towel.

11:00 am - 11:20 am Toilet Tissue paper disintegration literature review and laboratory work

David J. Castro, Staff
Scientist, Nalco Water,
An Ecolab Company, USA

The relatively recent appearance of 'flushable' retail items has motivated a new discussion in the media and technical forums around what makes an object disposable through sewer systems. Toilet Tissue paper has long been considered a safe material for disposal due to its fast disintegration dynamics and biodegradability. The first part of this article presents a brief literature overview of paper properties relevant to fast disintegration under wet and turbulent conditions. Two of these properties are fiber type, e.g., virgin versus recycled fiber, and wet end chemistries, e.g., permanent versus temporary wet strength. Test methods as a means to understand these properties are also discussed. The second part of this article focuses on recent laboratory results to test some of these conditions and highlight test method limitations and strengths. Some of this work consists of handsheet preparation under controlled conditions to test specific variables correlating to the literature review in the first part.

TECHNICAL SESSION 7

March 23, 2018 – 11:20 am - 12:20 pm

MARCH 23

TECHNICAL SESSION 7 – SUSTAINABILITY, REGULATORY AND BEST PRACTICES

11:20 am - 11:40 am Sustainable Tissue products: a 360 view from market demand to cost savings

Shyam Ramrekha,
Product Manager, UL
Environment, USA

For manufacturers of Tissue products, sustainability is an attribute that is of increasing importance from both a market demand standpoint as well as a cost-savings consideration. However, with so many aspects to sustainability, it can be challenging to know what criteria indicate a truly sustainable product.

In order to truly champion sustainability, it's important that manufacturers of Tissue products consider their impact from a lifecycle perspective: from design through manufacturer and disposal.

In this presentation, we'll help Tissue manufacturers consider their complete environmental footprint from end to end, providing a true evaluation of sustainability. We'll consider best practices for Tissue manufacturers and how the following sustainability attributes can also result in cost savings: Energy use and pollution level during production, reduced release of dangerous chemicals into water, increased landfill diversion, higher use of recycled content for reduced impact on natural resources, lower emissions of greenhouse gasses, reduction of air emissions for improved air quality and screening for toxicological risks to human health during exposures.

We'll also explore the growing demand for truly sustainable Tissue products worldwide and discuss how certification offers a competitive advantage in the marketplace.

11:40 am - 12:00 pm Regulatory compliance... Did you do your DHA?

Rick J. Klaus, Technical
Sales, Osprey
Corporation, USA

Managing Tissue operations is complex enough, but add in regulatory compliance and it becomes more complex. The issuance of NFPA 652 in North America and ATEX Guidelines in Europe have drawn more attention to dust control in Tissue operations. This paper will cover the Dust Hazard Analysis (DHA) requirements that need to be completed before the September 2018 deadline set by NFPA 652 to minimize dust fires and explosions. Additionally, it will compare the various organizations that plant environmental and safety engineers interface with during creation of a meaningful dust control program. Specific recommendations will be offered on recommended next steps to take regarding DHA compliance and dust control.

12:00 pm - 12:20 pm Best practices for a safe and clean tissue machine room

Lawrence Yane, Sales
Engineer, Enerquin
Air Inc., Canada

Many tissue mills have problems associated with dust and moisture in the machine room. Developing specific solutions to address these issues can be complex. Key strategies for retrofitting existing machine halls as well as design considerations for greenfield projects will be presented. These best practices will ensure good working conditions, minimize the risk of fires caused by dust and protect the machine hall from corrosion in Tissue manufacturing.

The primary purpose of heating and ventilation systems is to prevent condensation phenomena inside the building and ensure proper environmental conditions. While each tissue machine hall ventilation solution is unique, a successful ventilation system must meet the following key requirements:

- Maintain optimal conditions for operator safety and comfort
- Protect building and auxiliary equipment from corrosion and deterioration
- Minimize dust build-up
- Prevent dust combustion-related fires
- Reduce the amount of energy used by the system.

12:20 pm

Closing remarks by session moderator

EXHIBITION

March 21 Wednesday 10 am - 6 pm

March 22 Thursday 10 am - 6 pm

March 23 Friday 10 am - 4 pm

CONFERENCE

March 20 Tuesday 1 pm - 5 pm

March 21 Wednesday 8:30 am - 5 pm

March 22 Thursday 8:20 am - 5:10 pm

March 23 Friday 8:20 am - 12:20 pm

About Tissue World

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