The independent news provider for the global tissue business WORLD JANUARY / FEBRUARY 2014 **ARGENTINA** Tissue consumers primed and ready for an economic upturn

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Argentina illuminated by moonlight with the glow of cities shedding light on the exaggerated terrain. Elements of this image furnished by NASA.





January/February 2014

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By HELEN MORRIS
Tissue World, Editor

DON'T CRY FOR US IN ARGENTINA: 'TISSUE CULTURE' PRIMED AND READY FOR AN ECONOMIC UPTURN

ill manager Eric Taylor has a seemingly simple but extraordinarily demanding ethic known to anyone working successfully in industry: 'Each day we assess the problems ... otherwise known as opportunities.'

Taylor, the subject of our Day in the Life feature as boss at Cascades Tissue Group's North Carolina site, certainly has fewer problems – there are many reasons for that - than his equivalent in Argentina, where problems-known-as-opportunities are stacking up.

The threat of hyperinflation – 28% tissue value growth on the back on inflation in 2013 - government price controls on 500 key brands including all major bathroom tissue brands, a burgeoning hard-discounting model helped by that distorted market seeing the rise of private labels, dominant neighbours in Brazil and Mexico, the prospect of yet another financial crash in a decade and more history of economic turmoil ... by most indicators the reasons which led our Euromonitor report to suggest Argentina's tissue market is "fighting for survival."

Well, I have been – to use the time honoured phrase – on the ground in Buenos Aires and that's not how it looks from there.

We must beware the generalised analysis compared to individual performance. In fact, all tissue producers in Buenos Aires are at full capacity: at Celulosa Argentina and Papelera San Andrés de Giles the glass is very much half full and problems are being viewed by the Eric Taylor work ethic.

A worldwide decline in its primary business of printing and writing paper is prompting Celulosa Argentina to move into tissue. A new Voith TM will add 30,000tpy of quality tissue to a market which it maintains is showing "substantial growth".

Andrés Gagliardi heads up the sales department at Papelera San Andrés de Giles. He reports changing cultural attitudes that show significant promise: "A shift in incomes ... people becoming wealthier ... the middle class growing ... their consumption habits changing." The phenomenally useful kitchen roll is catching on: "Before, they didn't know about it. Now it's become a habit for many that they can't do without."

So that's the view from two mills within Argentina. There's a grim joke about the economy going the rounds there - at least it's not as bad as in Venezuela, where things are so bad the military has moved into toilet paper production.

Our analyses do recognise one central point. If the country were to re-balance its economy and incomes were to grow, then consumers are primed to offer up a huge area of growth.

Tissue World Americas 2014: Miami show preview

With its continuous growth, the tissue market in the Americas is offering huge potential to international exhibitors that are looking to develop their business and Tissue World Americas is the perfect place to cultivate new opportunities in the region.

Significantly, 2014 also marks the special launch of the brand-new Retail and Distributors Insight Forum. At the world's largest tissue trade show, retail and AfH tissue managers can now gain unique value-chain insight. The Tissue Retailers and Distributors Insight Forum (TRIF) will give tissue sourcing, category and business development managers unique insight and understanding of the \$80 billion tissue products category.

In this issue, TW previews the many new and longestablished companies that will be exhibiting and offering their latest input at the trade show.

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Stefano Santini: A brilliant and modest tissue pioneer, dynamic visionary, creative force, social politician... and punk rock band manager

Martin Bayliss, former editor of Tissue World magazine, pays a heartfelt tribute to Stefano Santini, who died at his home in Lucca, Italy.

tefano Santini, who died aged just 50 in a tragic accident at his home in August, was one of the pioneers of the modern tissue industry. He helped build Perini's marketing department into one of the most effective in the business, starting with the development of its house journal into the magazine it is today. He was also one of the brains behind the start of the Tissue World trade shows.

He was much more than just a successful manager, according to colleagues and his many friends. He was a talented linguist who spoke six languages. He was an accomplished musician, at home with the classics but in recent years also the lead singer and songwriter for a punk rock band. He was a voracious reader, with eclectic tastes and broad cultural interests. Above all, he was a person who "touched people's hearts," according to Tissue World's conference and operations manager Agnes Gehot.

"He was truly interested in people," she said, "a very bright guy but not full of himself. Extremely cultured and knowledgeable, constantly searching for new things, always on the move."

Stefano joined Perini's marketing department in the early 1980s straight from school. Immediately he made a huge impact on the growing company. Gabriele Meschi, a consultant to the company was immediately impressed by his intelligence and creativity. "He was the only person I ever met in my career who had such capacity."

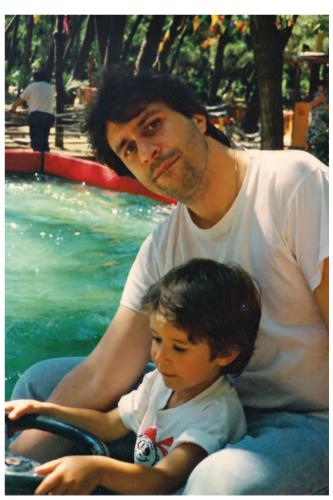
Company founder Fabio Perini said: "Stefano was a man full of energy, a dynamic presence who was liked by all. I especially remember his dedication to the development of the Perini Journal - but his contribution was not limited to this single achievement. He was a strong and lively creative force."

Ex-colleague Cristina Bernardini said: "Stefano has always been a kind of genius, the guy able to really think out of the box. He had a very eclectic culture and attitude. His open-minded attitude allowed him to get in touch and set partnerships with everybody and every country, a unique skill in the years when Perini was establishing and consolidating its global network. Stefano's ability to cut through cultural differences and understand different mentalities was an indisputable asset."

In 1983-84 Stefano's introduction of the latest graphic design and desktop publishing technology revolutionised Perini's promotional activities. Meschi added: "Management had faith in Stefano and gave him opportunities few 20-year-olds could dream of today."

"Stefano was a visionary," according to Marco Dell'Osso, who spent 10 years working alongside him at Perini. He repaid the company's confidence with clarity of thought, creativity and avant garde ideas. He also had the knack of working well with his colleagues - "an authentic person, professional but also generous and human."

One of the biggest tasks was managing the company's presence at trade shows. There was no dedicated tissue exhibition in the 1980s but the giant Drupa dedicated a hall to converting, including tissue. In 1990, Perini had a 100m2



'Stefano was a man full of energy, a dynamic presence who was liked by all.'

stand at the show and also organised a range of off-site activities which Stefano, by now marketing director, was responsible for.

Walter Tamarri, a colleague at Perini, said: "He was the reason I chose to work at Perini. I happened there 'by mistake.' My application was meant to reach another company. Stefano interviewed me for a potential job and the day after I was on a plane to Drupa 1990, completely unaware of what being part of the organisation of such a show meant! This kind of thing was typical in those years. Interested, curious people did new projects, fearlessly."

That year, Drupa ejected converting from the printing event and created Papro; a specialised exhibition that included tissue. They decided to hold it in 1991, too soon for many exhibitors - and it still did not give tissue its independence from the broader converting business.

Stefano approached Hugh O'Brian, then with PPI and now Tissue World conference chairman, and together they hatched the idea for what was to become Tissue World. The two worked together to set up the first exhibition, held in Nice in 1993.

Under Stefano's management, Perini adopted a low profile with respect to Tissue World. "There was no attempt to dominate," O'Brian said, but instead unstinting support with the company offering its mailing lists and free advertising in Perini Journal to spread the word. The show was a success and, O'Brian says, "Stefano was always proud of his role in creating Tissue World."

Of all his colleagues, Tamarri was perhaps closest to him: "I worked with Stefano for eight years and he was a good person. For me, it's not possible to split the Stefano Santini professional figure from Stefano Santini friend. He taught me everything I know professionally. He was a great pro with a constant, steadfast desire to always do and try something new. Without Stefano, the PR & Communications office at Fabio Perini would never have been built up.

"I am still tied to him. He was a person above everyone and everything else."

Tech. Vantage International's Charles Yip said: "He appeared to me like an artist who wished to make every piece a masterpiece. He was an easy going and flexible man who it was a pleasure to work with. His spirit will always blend with Perini Journal even though he left there a long time."

If this article has focused mainly on the early years of Stefano's career, it is above all because of the impact he had on the youthful tissue industry - not just on Perini but far more widely. As tissue matured, so the opportunities for truly radical thinking dwindled and the excitement faded. Increasingly, Stefano's enthusiasm for tissue marketing declined, though he had stints with Tronchetti and later Gambini.

He also continued to spend hours in Libreria Baroni, his favourite bookshop in Lucca, or just talking with friends. He devoted more time to his passion for music. A chance meeting with Cesar Paul Bigelow, 15 years his junior, led to

the creation of Cosa Nostra, an ironically-named punk rock band that had great success in the Lucca and broader Tuscan scene. "He was like a big brother to me," Bigelow said.

Politics also re-emerged as an important interest. In his early days he had been active with Radio Libere (free radio), and he moonlighted for many years as a DJ. He was bitterly disappointed that these anti-establishment radio stations, originally set up to challenge the state monopoly of broadcasting, had been taken over by big business. He was also "enraged at the injustice in our society and our city," according to Matteo Giordano, an organiser for the extreme left-wing Rifondazione Comunista.

"Stefano came up to me in 2007 and asked what he could do to help," Giordano said. He never became a party member



but he helped in opposing Lucca's right-wing government. "He was a social politician with high ideals. A noble soul, half punk, half Bohemian."

Giordano also appreciated Stefano's music and at the time of our conversation was organising a memorial concert financed by the sale of a CD of Cosa Nostra music, much of it written by Stefano.

His son, Daniele, now 21, is following in his father's footsteps as a musician, linguist and traveller and shares his eclectic approach to life. "He taught me English, Spanish and Portuguese. He took me to many places - I love travelling because of him. I'm very proud to be his son and I know he was proud of me too."

The two never played music together, though they talked about it just days before Stefano's untimely death in August. But Daniele recalls clearly the first time he heard his father sing. "I couldn't believe it was him singing. He sounded so professional."

Stefano Santini was a man of so many qualities it is impossible to encapsulate his all-too-short life in a few words. I personally knew him more by correspondence and reputation but although we met rarely, he always impressed me with his restless energy and originality. One thing unites all those that knew him, from whatever sphere of activity: his startling combination of brilliance and modesty, intellectual sharpness and personal warmth.

Ukraine

PJSC "VGP" STARTS UP GAMBINI LINE

Ukrainian tissue converter PJSC "VGP" has boosted its product offering after it successfully started up a Gambinisupplied production line.

The Right 550 line is capable of producing premium class products, 3-ply toilet paper and kitchen towels, medium and economy class products, 2-ply toilet paper, 2-ply point-to-point kitchen towels and 2-ply kitchen towels.

PJSC "VGP" said the choice of equipment was defined by pricequality ratio and line flexibility for quick product format change.

It said: "The product diversity, high speed and quick format change will let the company satisfy customer's demand at a favourable price in all the market shares at home and abroad maintaining high quality standards."

The Gambini line is distinguished by its component parts, including the embossing unit TOUCHMAX 40.80 and the point-to-point unit.

It also integrates equipment from



At the signing: (L-r) Carlo Berti, Gambini sales and marketing director and Illia Miretskyi, PJSC VGP CEO

other companies, i.e. Pulsar diverter REDS 4/8 TEV STEP5, TMC packing machines ZERO and QUATTRO, TRASCAR palletizer.

Gambini said: "TOUCHMAX is now the embosser which makes a real difference in the production process allowing a three minutes product changeover guaranteeing high level safety for the operators and high quality of the tissue roll products.

"TouchMax, with 5 steel embossing rolls always on board, is capable to produce up to six different products

by only entering the embossing roll configuration via HMI panel without replacing any steel embossing rolls, therefore allowing a real-time production scheduling."

PJSC "VGP" is one of Ukraine's leading converters and has been in operation since 1998.

Its brand portfolio includes toilet paper, facial tissue, kitchen towels and hankies under trademarks Ruta, Ruta Selecta, 100% paper, Servetta and Polotenechko.

The company also produces private label products for large retail chains.

Sweden

DUNI POSTPONES CLOSURE OF ONE OF ITS REXCELL PRODUCTION UNITS

Duni's Rexcell subsidiary has extended production of input materials for the hygiene products industry for another year.

The company said the move will "permit profitable operations until the production unit is closed".

Duni announced in February 2013 that it planned to close one of the three production units of its Rexcell Tissue and Airlaid subsidiary in Skåpafors, Sweden.

The unit manufactures and sells input materials for the hygiene products industry.

Rexcell expected operations to be fully phased out by the first quarter of 2014. In collaboration with the trade unions, Rexcell has now decided to extend the



Thomas Gustafsson, president and CEO of Duni

One of the Rexcell production units is now expected to be fully phased out by March 2015.

The subsidiary will still cut back on its production volumes and has issued notices of termination for 23 employees. Thomas Gustafsson, president and chief executive of Duni AB, said: "We will continue to manufacture input materials for hygiene products, while maintaining satisfactory profitability at the unit.

"The primary impact of the extension is that employees who are unaffected in the short run will have more time to retrain or find new jobs.

"Our decision to phase out production of input materials for the hygiene sector stands. Duni's strategy of focusing on our core business remains in place. Our future growth will stem from products that enhance the atmosphere around the set table.

"That is the focus that will yield the highest return for our shareholders going forward."

operations for another year.

Sweden

METSÄ TISSUE BOOSTS CAPACITY AT MARIESTAD MILL

Metsä Tissue will invest €10m in a new converting line at its Mariestad mill in Sweden.

The investment will increase the company's consumer tissue products capacity and strengthen its position in the European tissue market.

It will increase the Mariestad

mill's converting capacity by up to 80,000tpy.

Mark Watkins, senior vice president, tissue, Scandinavia, said: "Consumers' expectations on product quality are increasing all the time.

"The new converting line represents state-of-the-art tissue converting

technology, which means we can produce the softest tissue qualities on the market.

The new line, supplied by Futura, will start production in autumn 2014.

The investment also includes the extension of the warehouse facilities at Mariestad

Мехісо

FABRICA DE PAPEL SAN FRANCISCO STARTS UP ADVANTAGE NTT TISSUE LINE

The world's first Advantage NTT tissue line has been successfully started up at Fabrica De Papel San Francisco in Mexico.

Supplied by future Valmet, the new line is the tissue manufacturer's third tissue machine supplied by Metso's Pulp, Paper and Power business, the future Valmet.

It is operating at high speed producing premium quality tissue with high bulk and softness.

The scope of supply comprised a complete 2.6-m-wide Advantage NTT tissue machine equipped with an OptiFlo II TIS headbox, a Metso Yankee cylinder, an Advantage AirCap yankee hood, sheet control, tail threading equipment, an Advantage WetDust dust management system and an Advantage SoftReel reel.

The new tissue line will add another 30,000 tonnes per year of bathroom tissue, napkin and towel grades to Fabrica de Papel San Francisco's existing production.

Dario Palma y Meza Espinoza, director of operations at Fabrica de Papel San Francisco, said: "We are very excited about the successful start-up and the Advantage NTT technology has met our high expectations.

"We strongly believe that this flexible concept will change the way tissue will be produced in the future."

He added that so far, the company has tested a large number of different grades and basis weights in both plain



and textured mode, all with good result.

"We have actually set some production records with the new NTT concept," he said.

Jan Erikson, vice president, sales, Pulp, Paper and Power, Metso, said: "Our Advantage NTT concept gives a new more flexible option for producing premium quality tissue using less energy and fibre compared to traditional technology.

"We are very satisfied with our first start-up, efficiency and the quality of the products. This is a great milestone in our company's history."

The Advantage NTT concept is Metso's technology for producing premium quality textured tissue with high bulk and softness using less energy and fibre. The company said its unique flexibility makes it possible

to easily switch from production of conventional to textured tissue.

It can be operated by virgin or recycled fibre.

Fabrica De Papel San Francisco already operates two Advantage DCT tissue machines at their Mexicali facility, one of which started up in 2006 and the other in 2009.

The company's PM4 set a then world speed record of 2,160m/ min in 2009 and its PM5 achieved a record-breaking rapid start-up in 2009, reaching a production speed of 2,100=m/min only 12 days after start-up.

Fabrica de Papel San Francisco now operates five tissue production lines and converting facilities delivering tissue products for the Mexican and US market.

Мехісо

K-C DE MÉXICO ANNOUNCES NEW TISSUE PM

The Mexican arm of the global paper producer Kimberly-Clark, Kimberly-Clark de México (KCM) announced the second quarter of 2014 as the scheduled startup date for its new tissue paper machine to be installed in Querétaro, central Mexico.

Even though the details of the project have not been confirmed by KCM, market sources said it is comprised of an Advantage DCT 200 tissue paper machine supplied by Metso, with a capacity of about 65,000tpy to be installed at KCM's Bajío mill, located in the Mexican city of San Juan del Río, Querétaro state.

KCM currently operates three paper machines at the Bajío site, which has a production capacity of approximately 210,000tpy of tissue paper.

Brazil

BRAZIL'S TISSUE PRODUCER SANTHER POSTS THIRD QUARTER REVENUE IMPROVEMENT OF 7.5%

Brazilian tissue paper producer Santher's financial results for the third quarter of 2013 showed revenues 7.5% higher over the same period of 2012, at Real 304 million (\$130.9 million).

'During the first nine months of the year, Santher's revenues hit Real 867.7 million, a 12% increase over results posted for the same period of 2012.' The company's EBITDA also boosted 37.6% to Real 35.5 million. The improved results, alongside an 8.6% decrease in net debt to Real 450.6 million, took the company's leverage (net debt/EBITDA ratio) down to 3.7x.

During the first nine months of the year, Santher's revenues hit Real 867.7 million, a 12% increase over results posted for the same period of 2012.

These results, according to the company, are mainly due to increased sales volume and higher average prices, which in turn were influenced by both individual price increases and the sale of products with greater added value.

News from RISI (www.risiinfo.com)

Spain

DOMTAR TO ACQUIRE INDAS

Domtar is to expand its personal care business in Europe with the acquisition of Spanish branded adult incontinence products Laboratorios Indas (Indas).

Domtar said the move is "a critical step" to building a pan-European business.

Domtar will acquire all the outstanding capital stock for €285m and the business is expected to have approximately €140m of debt, net of cash, at closing.

The net debt is expected to be reduced by the collection of approximately €25m of past due accounts receivable before yearend or early 2014, resulting in an enterprise value of €400m.

The majority of the debt will be repaid by Domtar in connection with the closing of the transaction.

John Williams, president and chief executive of Domtar, said: "The acquisition of Indas advances our transformation into a leader in personal care, an attractive market segment that is an important growth engine for Domtar.

"With the addition of the new business, Domtar will become one of the leading adult incontinence products manufacturers in Europe, providing the critical mass upon which to build a pan-European business.

"As a result of this transaction, we are substantially closer to achieving our previously stated goal of generating at least \$300 million of EBITDA from fibre based consumer products by 2017."

Michael Fagan, senior vicepresident, personal care, added: "Indas is a leading marketer of adult incontinence care products in Spain with its IncoPack and Indasec® line of products, and we are pleased to be adding these prominent brands to our portfolio."

With a primarily branded product

offering, Indas has a leading market position across a number of adult incontinence segments in Spain including heavy incontinence and underpads as well as branded light incontinence.

Indas distributes its products in three main channels: pharmacies, hospitals and retail.

It operates a manufacturing facility in Toledo, Spain.

Javier Martin, chief executive of Laboratorios Indas, said: "The acquisition by Domtar is a great outcome for our customers and our employees.

"Domtar is a strategic long-term owner who is committed to growth in personal care and they will give us access to the resources and the technology to accelerate our growth plans and be successful."

The closing of the transaction is expected by year-end 2013, subject to customary closing conditions.



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Spain

SCA TO FOCUS PRODUCTION IN SPAIN ON ALLO AND VALLS TISSUE MILLS, CARMONA CONVERTING FACILITY SLATED FOR CLOSURE

SCA has announced its intention to focus its production in Spain on its plants in Valls, Tarragona and Allo, Navarre.

As a result, the firm intends to close its Carmona facility near Seville and to transfer the site's converting activities to Allo.

Moreover, the converting activities of SCA's Mediona mill near Barcelona will also be moved to Allo, while tissue production there will continue.

According to SCA, the planned measures aim to secure its short- and long-term competitiveness in Spain and to set the stage for future growth. "(The Allo and Valls facilities) are the best suited mills due to their technical standards, they have the best geographical locations and [give] SCA the possibility to grow the plants in the future." SCA said in a statement.

SCA's Allo mill has a production capacity of 160,000tpy of tissue on three machines, while the Valls

site can manufacture some 120,000 tonnes/yr on two PMs. The firm's La Riba facility in Tarragona, which is part of the Valls mill and churns out around 45,000tpy on two machines, is not affected by the planned measures.

Regarding the planned stop of converting activities at Mediona and the closure of the Carmona plant, SCA said that the converting operations at Mediona are not economically viable due to high costs and the facility's inability to expand.

"Carmona is not efficient since Allo's converting capacity is significantly underused," the firm said.

SCA added that the planned closure of the Carmona plant will affect 24 employees.

The company has entered into negotiations with worker representatives in order to minimise the impact on the employees. SCA expects the consultation period to last up to 50 days.

"We are looking into possibilities to accommodate relocation of some of the affected employees to other mills in Spain.

"Our intention is to finalise the negotiation process by the end of the year and continue to implement the changes during 2014," a spokesperson told PPI Europe.

José Ramón Iracheta, SCA country manager Spain, said: "We are fully aware of the impact that this decision will have on our employees at Mediona and Carmona.

"This is not a measure we have undertaken lightly; on the contrary, it follows a thorough analysis and consideration of the best possible way to secure our business continuity and future in Spain.

"We are confident that this process will allow us to strengthen our business here in Spain."

News from RISI (www.risiinfo.com)

China

APP CHINA STARTS UP SIX TISSUE MACHINES, ADDING NEW CAPACITY OF 200,000TPY TO HAINAN

APP China has stayed on course with its plans for tissue paper expansion, bringing six tissue machines online at its Haikou mill on the Chinese island of Hainan.

The new units have a combined capacity of 200,000tpy.

These units include two 60,000tpy A Celli machines, PMs 23 and 24, which each having a width of 5.6m and a design speed of 2,400m/min, and four 2.8m wide machines assembled by APP China's subsidiary, Jinshun Machinery.

Each has an individual capacity of 20,000tpy, according to a company spokesman.

The smaller Jinshun units feature headboxes, 16-feet yankee dryers and

hoods imported from Europe, while the remaining parts of the machine were sourced in China to keep costs down.

"These four machines are the upgraded versions that Jinshun managed to build using the knowledge and experience it had gained from assembling similar types of tissue production lines previously. They are designed to be operated at a higher speed," said the contact.

With a maximum speed of 1,800m/ min, these units are capable of running at 1,600m/min soon after startup.

All six PMs came on stream following the commissioning of two 60,000tpy, 5.6m wide A Celli units earlier this year at the Haikou complex.

Prior to that, the facility housed 12

tissue machines with a combined capacity of 288,000tpy.

With the eight PMs being commissioned this year, the mill will have twenty tissue machines with a total capacity of 608,000tpy.

And there are more machines to come. In APP China's plan, a further ten 60,000tpy A Celli machines and eight Jinshun units will be added to the complex by the end of 2015.

If the 18 PMs come online as planned, they will boost the total tissue capacity at the mill to a whopping 1.368 million tpy.

The tissue machines are integrated with the plant's 1.8 million tpy bleached hardwood kraft pulp line.

News from RISI (www.risiinfo.com)

China/Indonesia

APP PLANS FIVE MORE LARGE TISSUE MACHINES FOR MILLS IN CHINA AND INDONESIA; MAY BE TOP GLOBAL PRODUCER IN 2015

Asia Pulp and Paper (APP) has modified its ongoing tissue paper capacity expansion plans in China and Indonesia, aiming to erect five more large machines there that each have a capacity of 60,000tpy.

The firm initiated the ambitious tissue expansion scheme late last year.

It was unveiled that 42 machines would be installed at its facilities in China and 15 units in Indonesia.

These 57 machines, which include 41 large 60,000tpy units and 16 medium-sized 27,000tpy PMs, represent a combined capacity of 2.892 million tpy.

With the five additional large PMs added, the total planned increase in capacity is now 3.192 million tpy.

All 62 machines are planned to come on stream by 2016.

At that point APP's total tissue capacity will skyrocket to 4.548 million tpy, towering over the current top global tissue producer Kimberly-Clark (K-C), whose capacity is projected to reach 3.864 million tpy in 2016 according to the RISI World Tissue Capacity Report 2013.

APP's planned tissue capacity in 2016 would also surpass that of SCA Hygiene Products, presently the second largest tissue producer in the world but also poised to surpass K-C.

The Swedish producer's tissue capacity is forecast to hit 4.474 million tpy that year with its acquisition of the Chinese manufacturer Vinda International.

And Vinda is set to boost its total tissue capacity to 1 million tpy by 2015.

Initially when APP laid out the aggressive growth blueprint, doubts were raised about its viability in terms of construction and market conditions.

Pundits questioned the wisdom of building so many machines in such a tight timeframe and expecting the market to absorb so much new capacity.

An APP senior executive told RISI that the firm has been constantly evaluating the situation and made adjustments to take into account factors unforeseeable when the project kicked off a year ago.

The review has led to its decision to rework the plan.

But instead of simply cutting the number of planned machines, APP has now decided to build more.

APP's affiliate APP China has chosen the spacious Suzhou facility in the southeastern province of Jiangsu to build nine large PMs, alongside three units of the same size that had already been planned

Former changes includes the cancelation of eight large PMs in China – six at its Haikou complex and two at the Xinmin mill – while adding an extra thirteen units of the same type – nine at the Suzhou facility and two at the Xiaogan mill in China, as well as two at a greenfield site in South Sumatra in Indonesia, where APP is building a two million tpy bleached hardwood kraft pulp plant.

The contact explained that the high cost of shipping parent rolls from the Haikou facility on China's southernmost island of Hainan to the company's inland converting plant

across the country is the main reason behind its scale-down.

Other factors like limited space and inhouse pulp availability were also taken into consideration.

As for the reduction at the Xinmin site, which is located in the country's northeastern province of Liaoning, the company found that sales from the mill since its first large PM came online early this year have been slow, showing poor demand in the region.

As a result, it cut the planned additional machines for the plant from three to one. It is slated to be commissioned at the end of next year.

To make up for the shortfall resulting from the PM cancelations, APP's affiliate APP China has chosen the spacious Suzhou facility in the southeastern province of Jiangsu to build nine large PMs, alongside three units of the same size that had already been planned.

These 12 new PMs are scheduled to start up in the next two years.

The Xiaogan site in the central-north province of Hubei already houses two large PMs, with another two units slated to start up next year.

The new machines there are planned to come online by 2015.

The original plan for the rest of the machines at other mills in China has not changed. Four medium-sized PMs produced by Jinshun Paper Machinery, APP China's own subsidiary, will go up at the new site in Yaan city and two large units will go up at another greenfield plant in Suining city. Both sites are in the southwestern province of Sichuan.

However, APP China has not finalised the plan to install two large PMs at the Ningbo facility in Zhejiang province, which is operated by its cartonboard subsidiary Ningbo APP. The firm is mulling over changing the location of the two units from Ningbo to the Dagang mill in Zhenjiang city, Jiangsu province, which is owned by its fine paper subsidiary Gold East Paper.

Top Chinese producer: So far, out of the 62 tissue PMs planned, APP has brought eight online, all of them at the Haikou complex.

These machines comprise four A Celli 60,000tpy PMs and four 27,000tpy units assembled by Jinshun Paper Machinery.

Their commissioning has taken APP China's total tissue capacity from 772,000tpy to 1.12 million tpy, leapfrogging Hengan International to become China's top tissue maker.

Hengan owns several mills in the country with a total capacity of 910,000tpv.

There are still 12 machines to be erected at APP China's Haikou facility, including four large PMs and eight medium-sized units, with startup scheduled before the end of 2015.

Farther afield in Indonesia, APP is pushing forward with its plans to build 15 large tissue PMs at its two mills there – 14 at the Perawang site in North Sumatra and one at the Jumbi plant in Central Sumatra.

The startup of the first of the 14 PMs at the Perawang mill was originally scheduled for this month.

But the project hit a snag due to construction delays and its commissioning has been pushed back to early next year, according to the APP executive.

At the South Sumatra site where APP is working on the construction of infrastructure for the massive pulp line, the two large tissue machines in planning look set to be commissioned in 2016.

APP has planned an eventual total tissue capacity of half a million tpy for this mill

News from RISI (www.risiinfo.com)

China

SHANDONG CHENMING TO BUILD BSK PULP LINE IN HUBEI, CHINA

Shandong Chenming Paper Holdings is planning to build a 300,000tpy bleached softwood kraft (BSK) pulp line at a greenfield mill in Huanggang city, Hubei province.

A total of 216,500 ha of plantations will be established in Huanggang to secure woodchip supply for the fibre line.

A contact from Shandong Chenming confirmed construction will kick off next February.

Both the fibre line and plantation projects have been in the cards since 2008 when Shandong Chenming

A total of 216,500ha of plantations will be established in Huanggang to secure woodchip supply for the fibre line

established a wholly owned subsidiary called Huanggang Chenming Pulp and Paper in the region.

The projects were greenlit in January 2012 by China's Ministry of Environmental Protection.

The firm decided to accelerate the pulp line and plantation projects recently when it officially announced an investment of RMB 4.78 billion (\$780 million) in the schemes.

Other details are not available at the moment.

More investment in Zhanjiang: Shandong Chenming is also planning more paper and board capacity at its mill in Zhanjiang city, Guangdong province.

In late September, the firm said that it will build two PMs at the site, which currently houses a 650,000tpy uncoated fine paper PM and a 700,000tpy bleached hardwood kraft (BHK) pulp line

It aims to build a new 180,000tpy board PM there, mainly making cupstock, and a 190,000tpy printing and writing (P&W) paper unit.

A Shandong Chenming contact said that the P&W paper unit will be the machine it bought from Yanbian Shixian Bailu Papermaking earlier this year.

The PM used to produce newsprint at a rate of 180,000tpy. Shandong Chenming aims to rebuild it to produce low grammage P&W paper grades.

The Metso Paper machine has a width of 6.35m and a design speed of 1,600m/min.

In terms of the cupstock PM, no specific details have been released. The firm said that it has not reached any agreements on equipment purchases. No timelines are available for the two PMs.

Tissue PM at Wuhan coming: Shandong Chenming will start up a new 60,000tpy tissue PM by the end of this month at its mill in Wuhan city, Hubei province.

The unit, supplied by Metso Paper, will have a width of 5.6m and a design speed of 2,000m/min.

News from RISI (www.risiinfo.com)

SCA SECURES OWNERSHIP SHARE IN VINDA

SCA has secured an ownership share of 56.33% in the Chinese tissue manufacturer Vinda, signifying that the terms for completion of the offer have been met.

The company announced on 9 September that it was planning to make a cash offer for Vinda, China's third largest tissue manufacturer.

Prior to the publication of the offer, SCA held approximately 21.7% of the shares in Vinda.

China/Indonesia

SOPANUSA TO BUILD TWO TISSUE/MG PAPER MACHINES

Indonesia's Sopanusa Tissue & Packaging Saranasukses is set to bring two tissue machines on stream.

They will double the total tissue capacity at its mill in Mojokerto city, about 55 km east from East Java's capital of Surabaya.

The two virgin fibre-based units, each having a capacity of 100tpd or 25,200tpy, according to the company, will be operated by Sopanusa's subsidiary Sun Paper Source.

One of them being erected at the subsidiary's facility, PM1, is near completion.

Voith Paper provided the 2.75m wide crescent former unit, which will have a design speed of 1,800m/min and

feature a 16-ft Yankee dryer.

PM1 was initially planned to be commissioned in November. But the startup has been pushed back to December due to a slight delay in equipment delivery, said a spokeswoman for Sopanusa.

She indicated that output on the machine will be tissue and machine-glazed (MG) paper, which can be converted into napkins or other finished products used in delicate goods packaging.

The other unit, PM2, came from Metsä Tissue's mill in Poland.

Sopanusa has signed up PMP Group to rebuild the second-hand machine. Startup is scheduled for April next year. PM2 was probably the sole 25,000tpy machine at the Konstancin-Jeziorna plant near Warsaw, which Metsä Tissue closed and sold to a wastewater treatment specialist Saur Konstancja in 2012, according to sister publication PPI Europe.

Metsä Tissue also shut a smaller 10,000tpy tissue machine at its Krapkowice mill in southwestern Poland in the same year.

Sopanusa currently operates six machines making tissue and MG paper with a total capacity of 54,000tpy at the Mojokerto site.

Around 80% of its output is for export to more than 60 countries.

News from RISI (www.risiinfo.com)

Global

METSO'S PULP, PAPER AND POWER BUSINESS REBRANDS

Metso's Pulp, Paper and Power business has rebranded as Valmet Corporation.

Valmet will focus on developing and supplying technology and services primarily to industries that use bio-based raw materials. The company said: "Valmet's mission is to convert renewable resources into sustainable results.

"The Valmet organisation is designed to serve the customers in the best possible way. Our three business lines, Services, Pulp & Energy and Paper, will focus on developing competitive technologies and services globally.

"Valmet and Metso will continue to work closely together to offer winning automation solutions and services."

Jukka Viinanen was elected chairman of the board, Mikael von Frenckell as vice chairman, and the following as board members: Erkki Pehu-Lehtonen, Pia Rudengren, Friederike Helfer, Pekka Lundmark, and Rogério Ziviani.

Romania

METALICPLAS BOOSTS CAPACITY

Romania's Metalicplas has started-up a turn-key project tissue line at its Dej mill.

The new PM1 tissue machine has an operating speed of 1,600m/min, with 2,850mm trim width at reel and production capacity of 82tpd.



The scope of supply includes a singlelayer headbox and single suction press configuration, 3.6m diameter cast iron Yankee Dryer and an M.D.S. last generation energy saving gas heated hood.

Stock preparation, approach flow system, winder, machine auxiliaries, water treatment, electrification and control system complete the scope of supply.

With erection and installation works accomplished in a record time of three months from the laying of

soleplates, trials and start-up activities went smoothly and the machine was already producing good quality tissue paper reaching 90% of the tissue line capacity in under two weeks.

Full capacity was achieved at the end of September.

The company already operates a 2.5m trim, 20,000tpy Over Meccanica tissue machine at its Pehart Tec facility in Petresti.

Metalicplas is part of Romanian industrial group MG Tec Group.



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Algeria

FADERCO EXPANDS WITH NEW LINE

Algeria's Faderco is to boost its capacity after it signed for a complete tissue line for an undisclosed sum.

Supplied by Metso's pulp, paper and power business, Valmet, the order also includes an automation solution for machine, process and quality controls.

The tissue line will be installed on Faderco's new site at Setif and start-up is planned for the second quarter of 2015.

The value of the order will not be disclosed.

The tissue production line will have a design capacity of around 30,000tpy of high-quality facial, toilet and towel grades.

The raw material for the new lines will be virgin fibre.

Metso's scope of delivery will comprise of one complete tissue



Staff at the signing: the tissue production line will have a design capacity of around 30,000tpy

production line featuring stock preparation systems and an Advantage DCT 100+ tissue machine.

The machine is equipped with an OptiFlo headbox, a Metso Yankee cylinder, an Advantage AirCap, an Advantage WetDust dust system and an Advantage SoftReel A reel.

The stock preparation line consists of

OptiSlush pulper, OptiFiner conical refiners and deflaker and OptiScreen screens.

Faderco was founded in 1986 and produces baby diapers, adult diapers and paper products.

The company exports products to other countries in Northwest Africa and sub-Sahara.

Italy

EUROVAST BOOSTS PRODUCTION CAPACITY



Italian company Eurovast has boosted its production capacity by 30,000tpy after it invested in a tissue machine for its Cartiera della Basilica Lugliano-Bagni di Lucca plant.

Toscotec will supply the MODULO-PLUS crescent former which has a double press configuration and Steel Yankee dryer TT SYD-3200MM.

It has a maximum speed of 1500m/ min and will start production in the first quarter of 2014.

Eurovast is a limited liability company managed by the Romano family and

headed up by entrepreneur Vincenzo Romano.

It has been working in the tissue market since the beginning of the 1990s. The company currently has a production capacity of 70,000tpy with a total plant surface area of 36,000m2.

China/Indonesia

WEPA CASSINO STARTS UP SMART-EMT YANKEE HOOD

Wepa Cassino has started up a new SMART-eMT Yankee Hood complete with Air system and Heat Recovery.

Supplied by Milltech, the Luccabased supplier of advanced solutions for drying to the tissue and paper industry, the investment allows Wepa to achieve "significant improvements in production and consumption".

The SMART-eMT Yankee Hood uses

multiple heat recovery stages to recover exhaust energy.

According to Milltech, this means the Cassino mill can now optimise its production cycle and achieve a real improvement in paper quality, while decreasing energy consumption and environmental impact. Wepa Cassino is located close to Rome and is part of Wepa Group. The mill produces 60,000tpy.



Japan

JAPAN'S SHIN-EI PAPER TO INSTALL TWO TMS

Shin-Ei Paper has invested in two tissue machines with Steel Yankees that will be used to produce high-quality tissue from recycled fibre.

Scheduled to start up at the start of 2015 at the company's Fuji city site, the new PrimeLineCOMPACT machines will be supplied by Andritz.

They are designed for speeds of 1,800m/min with paper widths of 2.8m

They will be equipped with PrimeDry Steel Yankees to achieve high drying capacity at minimal energy costs.

Satoshi Kurosaki, President of Shin-Ei Paper, said: "Doh-Ei Paper, one of our group's companies, replaced a cast iron Yankee with an Andritz Steel Yankee in 2012.

"As promised, higher drying capacity and energy savings were achieved. During the tender phase for the two new tissue machines, we had a lot of constructive discussions with Andritz engineers and they proposed various possibilities to improve the production efficiency."

North America

WAUSAU PAPER DIVERSIFIES WITH TM START-UP

Wausau Paper has diversified its product offering after it started up a Voith ATMOS tissue machine.

The move increases the company's premium tissue production by 70,000tpy and enables the business to branch out into a wider spectrum of product categories.

It made the investment in response to customer demand for conventional and premium AfH products in the north American market.

The machine was installed at the company's plant in Harrodsburg, Kentucky.

It is designed to operate in conventional Crescent Former mode and in ATMOS mode and will enable Wausau to increase its installed tissue production capacity.

The 5.5m machine will produce premium and ultra-premium tissue papers using up to 100% recycled fibre.

It is also said to consume up to 60% less energy when compared to similar existing technologies.

Installation also includes complete stock preparation with the new IntensaPulper and the new Pluralis refiner disc for less energy consumption. For the tissue machine Voith delivered a MasterJet Pro T one-layer headbox with the ModuleJet automatic dilution system, a cast-iron Yankee with an 18 ft. (5.4m) diameter, and a high performance hood to withstand temperatures of up to 510 °C.



Russia

ARKHANGELSK TO BUILD A 100,000TPY TISSUE MILL NEAR MOSCOW

Russia's Arkhangelsk pulp and paper mill (APPM) is set to build a new tissue mill in Vorsino, in the Kaluga region, some 90 km southwest of Moscow.

The total cost of the project is around Rouble 5bn, according to the Russian news agency Itar-Tass.

The new plant will be managed by APPM's subsidiary Arkhbum Tissue Group.

In October last year, the company had planned to sign a contract with an unnamed supplier for the delivery of a 2.8m wide tissue machine.

The unit's planned capacity would be 100tpd. The investment is scheduled for completion in 2015.

Over 2016-2017, APPM plans to install a second tissue machine in Vorsino. The 2.8m wide PM would produce some 200tpd, raising the plant's total capacity to some 100,000tpy.

The two PMs will use Arkhangelsk's virgin pulp as raw material.

Apart from two tissue machines, the Vorsino plant will also feature converting lines.

This will be APPM's first full-cycle tissue production facility. The firm currently operates tissue converting lines for toilet paper production under the MyLova and Soffione brands at its newly-built Istra corrugated plant in the Moscow region.

APPM is part of Austria's Pulp Mill Holding (PMH). PMH also operates the Kiev paper and cardboard mill in Ukraine, which produces tissue, cartonboard and containerboard.

News from RISI (www.risiinfo.com)

Poland

METSÄ GROUP COMPLETES €55M POLISH INVESTMENT

Metsä Tissue has completed a €55m investment at its Krapkowic paper mill. The investment includes two new, state-of-the-art tissue paper machines, a new AfH product converting line as well as extending its converting and warehousing to new facilities.

The investment increases the mill's tissue production capacity up to 85,000tpy and converting capacity up to 50,00tpy.

Kari Jordan, president and chief executive, Metsä Group, said: "The renewed Krapkowice mill is the most modern tissue facility in Europe. "This investment is strategically important to Metsä Group as it strengthens our market position and competitiveness in the Polish tissue market. "Today's

consumers want sustainably manufactured, high-quality hygiene products. Our Polish mill meets these expectations extremely well."

The company is "seeking strong growth" in Poland and nearby markets where "the demand for new tissue products is increasing significantly". It has reduced the mill's CO2 emissions by 60%, reduced its NOx emissions by over 50% and "has virtually eliminated" SOx emissions. Due to major improvements in water usage and treatment, the amount of wastewater has also been reduced by 42%.

The Krapkowice mill produces Metsä Tissue's top brands Lambi, Mola and Katrin for consumer and AfH markets. The mill uses both virgin and recycled fibre.

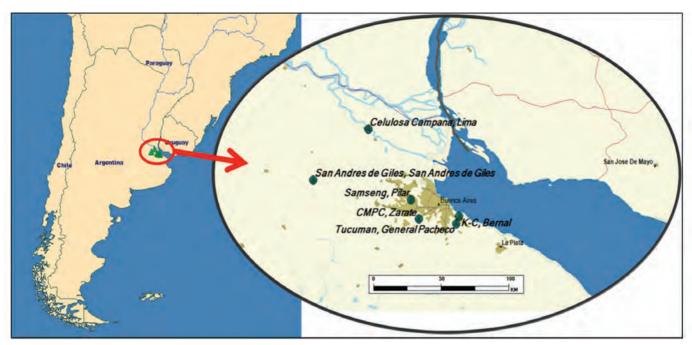
shortissues

Kemira has increased the price of its pulp and paper chemicals by up to 15%. The hike took affect in November 2013 on selected product lines between 5-15%. The company said the increase is a result of "increases in all major cost drivers including key feed stocks and raw material, energy and transport".

Tissue World 2013 Project
Survey additions: PMP's Henan
Hulijia Paper machine runs at
a speed of 1,200mpm. Voith's
Wausau ATMOS machine is a
new machine; SCA Mexico's
project from Voith is a shoe
press rebuild with no capacity
change, and Voith's CMPC
Talagante project is a rebuild
and so has no capacity change.

Södra Cell will open a European service center in Munich to help its sales organisation prepare to manage the expected increase in pulp volumes. The existing national offices will be phased out, but the sales directors will retain their respective key customer contacts and their geographic responsibilities.

Zhejiang Jingxing Paper clarification: The picture accompanying the "China's Zhejiang Jingxing Paper enters tissue market" article in the last issue concerned a previously announced deal. The company has ordered a new OptiConcept M container board production line from Metso (future Valmet). The new production line is targeted to produce high-quality containerboard grades out of 100 percent recycled raw materials. The start-up of the machine is scheduled for 2014.



Map 1 T&T operating mill locations in Argentina.

Argentina: modest, locally focused T&T business

By Bill Burns, senior consultant, Fisher International

rgentina's economy has suffered from repeated crises, deficits, high inflation, mounting debt, and capital moving out of the country. Rich in natural resources, Argentina has a well-developed and diversified industrial base. Agriculture is somewhat limited because less than 15% of the land is arable; most of it is used for cash crops and, thanks to vast grasslands, beef cattle. Both paper making in general and Towel & Tissue (T&T) production are limited. Argentina is 32nd in worldwide T&T production and fourth in Latin America. The growth rate of T&T production in Argentina somewhat reflects, but also lags behind, the country's economy. In 2002 the economy bottomed out. GDP then grew annually over the next six years, fueled by excellent international financial conditions and growth-focused fiscal policies. From 2007 to 2008 growth slowed and the following year, the world economy fell into recession. In 2010 the economy came back strong but has slowed since. The 10 year T&T growth trend was mostly flat, lagging behind the economy, until 2008 when there was a notable two-year increase in capacity. Growth has flattened out again since 2010. By comparison, during this same 10 year period, the remainder of Latin American T&T growth was on a steady incline (Figure 1) even through the world economic recession years.

Argentine T&T mills are geographically concentrated in the area around

'Argentina ranks fourth in capacity among T&T producers in Latin America'

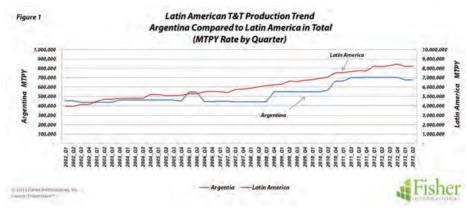


Figure 1 Trend plot for T&T production in the Latin America and Argentina from 2002 to 2013.

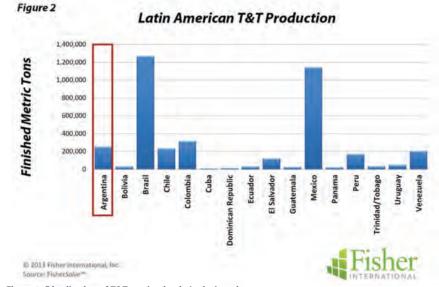


Figure 2 Distribution of T&T production in Latin America.



Figure 3 Distribution of T&T paper machines in Latin America.

country report: Argentina

Buenos Aires (Map 1). Argentina ranks fourth in capacity among T&T producers in Latin America (Figure 2). Argentina also ranks fourth (tied with Venezuela) in the number of operating machines (Figure 3). T&T machines in Latin America vary from narrow two-metre machines to six metres. Machines in Argentina are typical in terms of the trim range for the region, with the average being 3.0 metres (Figure 4). Mill production in Argentina is average compared to other producing countries in Latin America at approximately 40,000 MT/ Yr, as is the technical age of Argentine machines at about 18 years (Figure 5).

Argentina's cost position in the Latin American T&T market is centred between the two largest producing countries, Brazil and Mexico. Argentina has a higher dependence on purchased pulp than the largest low cost country but lower labour and energy costs on average compared to the higher cost countries (Figure 6). Fibre mix in Argentine mills is 48% market Kraft pulp, with the remaining being recycled (Figure 7). Recycled fibre is present in most Latin American countries, with some using 100% Recycled. Integrated recycled fibre provides some smaller producing countries an advantage over the purchased fibre consumed by larger

'Argentina's cost position in the Latin American T&T market is centred between the two largest producing countries, Brazil and Mexico."

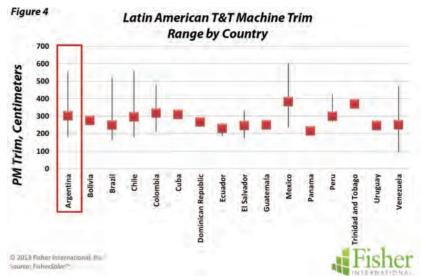


Figure 4 Distribution of T&T paper machine trims in Latin America.

Figure 5

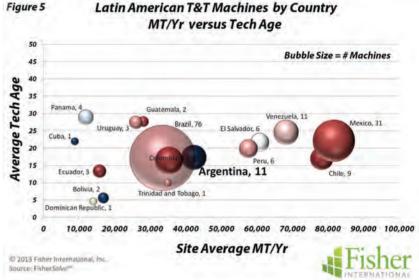


Figure 5 Technical age and production volume comparisons for the Latin American T&T paper mills.

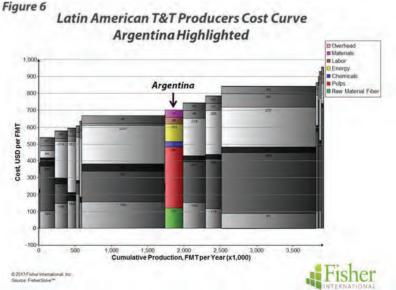


Figure 6 Latin American country level cost curve for T&T production with Argentina highlighted.

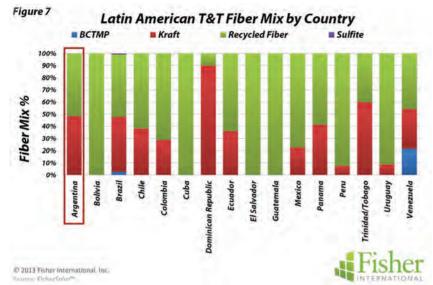


Figure 7 Fiber mix comparison for Latin American T&T producing countries.

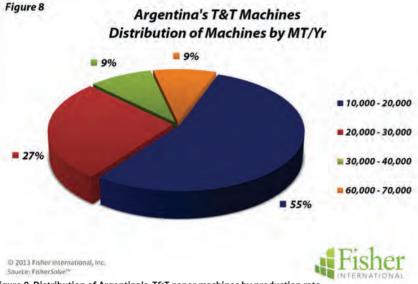


Figure 8 Distribution of Argentina's T&T paper machines by production rate.

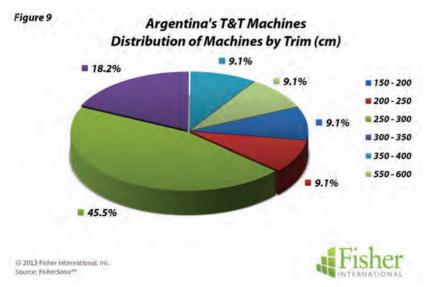


Figure 9 Distribution of Argentina's T&T paper machines by trim class.

producing countries like Brazil.

Argentine T&T machine production rates are dominated by small machines producing less than 40,000 MT/Yr. Only 27% of the machines are producing in the 40,000 – 70,000 MT/Yr range (Figure 8). Machine trims are narrow with about 80% of the machines being less than 3.5 meters (Figure 9). Less than 20% of the machines are wider, falling in the 3.5 - 5.5 metre class.

Machine speeds tend to be on the slow side with more than half of the machines below 1,500 mpm (Figure 10). Only 27% fall in the upper range of 1,500-2,500mpm. On the international scale, capacity-wise, Argentine machines bias below the average with a large proportion in the group of low-capacity machines. The age of Argentina's machines has a wide dispersion, with more machines below the average than above (Figure 11). The T&T business in Argentina is predominately local in ownership with nearly 70% being headquartered in Argentina (Figure 12).

Argentina in numbers

32ndPosition in worldwide T&T production

3 mAverage trim range of tissue machines

70%
T&T business under local ownership

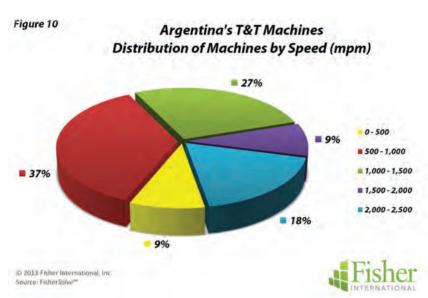


Figure 10 Distribution of Argentina's T&T paper machines by speed class.



Figure 11 Dispersion of Argentina's T&T paper machines against worldwide average production and age.

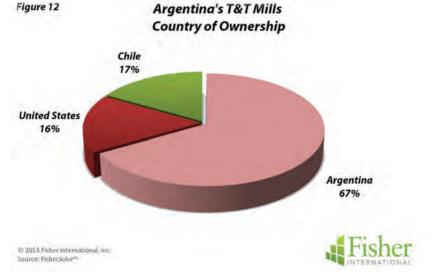


Figure 12 Distribution of Argentina's mills by country of corporation ownership.

The source for market data and analysis in this article is FisherSolve™. Data tables behind Figures 1 - 12 can be obtained from Fisher International. Email requests to info@fisheri.com.

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Argentina: the impact of inflation and price controls on tissue

The threat of hyperinflation is fuelling expectations of Argentina experiencing yet another financial crash. Euromonitor International's Ian Bell finds a market fighting for survival.

rgentina continues to exhibit very strong value growth across almost all FMCG categories, with retail tissue being no exception, set to register 28% value growth in 2013. While such strong double-digit growth is enough to make even the Chinese market blush, this can be largely, if not completely, attributed to rampant inflation rather than any renaissance in the tissue industry. Such are the levels of inflation experienced in Argentina and similarly afflicted Venezuela that both, although small demographically and economically when compared to regional powerhouse Brazil, are influencing Latin American value growth patterns as a whole.

In preparing this piece and talking to local contacts in Argentina, it is clear that high inflation, the threat of hyperinflation and the general expectation that the country is heading for yet another crash is the only story.

TISSUE VOLUMES STALL

Moving away from value analysis and towards more reliable volume data, in 2013 tissue consumption in Argentina remains at around 3.2kg per person, a figure that has changed little over the last five years. It is an indication that the current inflation problems have meant that categories such as tissue have stalled as consumers look to maintain their levels of consumption in

most cases but have little prospect of increasing them.

Over in Brazil where in spite of a recent slowdown economic fortunes have remained far more favourable, per capita sales have risen to 4kg in 2013. This is notable given that Argentinian consumers registered volume consumption some 15-20% higher back in 2000. Such is the influence of economic issues on tissue consumption

'Tissue consumption in Argentina remains at around 3.2kg per person. It is an indication that the current inflation problems have meant that categories such as tissue have stalled as consumers look to maintain their levels of consumption.'

that Argentina has been left behind by the developing regional superpower. That said, if the country were to rebalance its economy and incomes were to grow, then there remains a large opportunity in additional volume just to get per capita consumption up to the regional average.

HYPERINFLATION LOOMS

In 2013, Argentina finds itself once more in a familiar place. While official figures suggest 10-11% inflation is typical, this is misleading and underreports the precarious situation in which many consumers find themselves. According to the country's national statistics office INDEC, the average income of the lowest 30% of the population increased by 231% over 2007-2012, while a broader assessment of real inflation indicates something approaching 280%. This is an illustration of how incomes have been under pressure among the consumer group the tissue industry would normally be looking at to drive consumption and therefore volumes. This has not happened in Argentina and the tissue market has stalled as a consequence, only growing by 1% in volume terms in 2013.

RETAIL CHANGE AND PRIVATE LABEL

With all the negative economic

TISSUE IN ARGENTINA IN 2013

11%

3.2kg

28%

1%

Value share of private label products

Tissue consumption per person

Retail tissue value growth

Tissue market growth in volume terms

pressure on consumers there has been a notable shift in approach to purchasing tissue. Sales in supermarkets and hypermarkets, which have typically dominated the Argentinian market thanks to retailers' efforts to find convenient locations. have been on the wane. It is no surprise from a European perspective that pressure on spending has fostered

the perfect environment for the

'Pressure on spending has fostered the perfect environment for the hard discounter model to move into Argentina, offering consumers no-frills products at low prices."

hard discounter model to move into Argentina, offering consumers no-frills products at low prices.

These no-frill products are also more often than not private label lines and consumers have latched on to private label as the most effective way of tapping into reasonably-priced tissue during the current economic malaise. Private label commands an 11% value share in Argentina in 2013, up from just 2% five years earlier and way ahead of the reported regional average of 4%.

Price controls prove a failure?

The proliferation of private label has also been driven by retailers' own considerations. Grocery prices have largely been controlled by the national government via a policy enacted back in 2007. General price controls were further strengthened in 2012, with 500 key brands, agreed with retailers, listed as being under price control. All major bathroom tissue brands have been included on the list including Higienol. Elite and Scott.

Price controls in major chains such as Carrefour, Jumbo and Wal-Mart have encouraged retailers to look to private label and smaller brands not covered by price controls as a means of raising tissue prices. In addition, smaller brands and a plethora of new labels have helped retailers side-step supply problems which have been associated with major suppliers limiting production of priced-controlled brands as price controls have simply meant that there is little margin in much of the now listed tissue market.

Price controls have as a result only had a limited impact on the tissue market and have led to a certain degree of fragmentation in the retail environment and consumers' purchasing habits in order to find the lowest price products, which are ironically seeing the highest price increases, clearly a situation which cannot persist over the long term. Price controls are a short-term fix and with this particular fix not working and leading to shortages, widespread opinion suggests they may well be lifted sometime in early 2014.

ON THE BRIGHT SIDE - 'WE ARE NOT VFNF7UFI A'

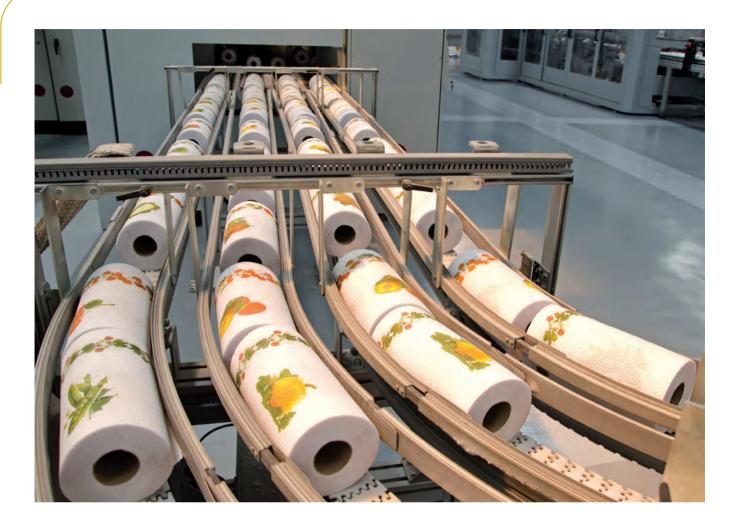
While things are bad, consumers have by all accounts tended to remain quite

sanguine as the situation is far worse in Venezuela, where shortages have forced the military to move into toilet paper production in 2013. That said, the pace at which the Venezuelan economy has seen inflation and then government control dominate an increasingly precarious position which has been seen to spiral out of control, is certainly a concern for Argentina which may once again find itself on the brink

'Price controls in major chains such as Carrefour, Jumbo and Wal-Mart have encouraged retailers to look to private label and smaller brands not covered by price controls as a means of raising tissue prices.'

before too long if current problems remain unchecked.

For many consumers, waiting for the crash has become something of a national pastime, with tissue consumers perhaps even being forced back to the bidet, the now little-used convenience still found in the corner of most Argentinian bathrooms. While it is typically rare for consumers to trade out of tissue, the situation in Argentina appears so precarious that for many this is becoming a very real prospect.



'No one knew what kitchen roll was – now it has become a habit'

Government cash incentives, a growing middle class, awareness of environmentally-friendly products, changing priorities... it all adds up to a dynamic future as the market catches up with Papelera San Andrés de Giles. A TW report.



Papelera San Andrés de Giles's mill in Argentina: "We have a 7% share in the Argentinean tissue market and we're looking to grow that. We want to have 10% by 2015."

he 90 minutes drive to Papelera San Andrés de Giles's (PSAG) family-run mill quickly leaves behind the hustle and bustle and colour of Buenos Aires and in its place are mile after mile of rural roads, farm land and flat fields.

That repetition is abruptly brought to an end when TW is greeted by Andrés Gagliardi, who heads up the sales department and is the grandson of the company's founder José Sassone, and also by plant manager Sebastian Schiaffino. There appears, as the next couple of hours reveal, to be every reason for their optimism.

The business was established in 1980, manufacturing toilet paper and toilet rolls and over the years has expanded its product offering while keeping a keen eye on market trends. It has grown organically through investing in high-tech technologies; a market strategy that it prioritises to this very day.

It now manufactures 18,000tpy of toilet paper and napkins, has its own brand, sells to the AfH market and also produces private label products for companies such as Walmart and Carrefour. Its business strategy is three-fold: sell jumbo rolls directly; supply jumbo rolls cut and sliced to companies such as Procter & Gamble; and sell them directly to the end consumer

Most recently, it has broadened its product offering to

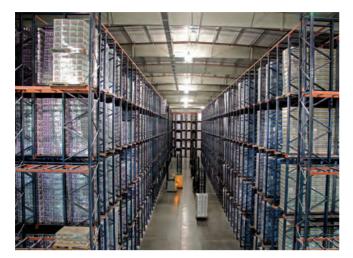
'We're the pioneers of printed tissue in Argentina. And now we're the only ones that can make it in six colours.' include handkerchiefs, which Gagliardi says is an area of the local tissue market that has seen a substantial increase in demand. Another growth area is environmental products. "It's one of the main reasons there's growth here," he adds. "The government has established a set of cash incentives to encourage people to consume more environmentally-friendly products. So we're definitely seeing an increase in demand for sustainable products that's coming from the actual consumer."

'We're seeing an increase in demand for 2-ply products, simply because people have more money now and are beginning to consume different sorts of products.'

Kitchen roll is also increasingly becoming a habit for Argentinean households. "We're seeing a shift in incomes, people are becoming wealthier and the middle class is growing and with that their consumption habits are changing. We're seeing more and more people trying kitchen roll, whereas before they didn't know about it. Now it's become a habit for many that they can't do without."

More no-frill products have also come onto the market, more often than not private label lines. At the end of 2013 the sector now commands an 11% value share in Argentina, up from just 2% five years earlier and way ahead of the reported regional average of 4%.

operations report



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Per capita, Gagliardi says that tissue demand was 5.5 kilos a few years ago, and now it's 7.5 kilos. "This is why we've invested in the Futura line and are looking to invest in the third converting line. We need to keep up with demand."

The Futura line was installed last year, and Schiaffino says the technology, JOI 012, is the first ever embosser to feature a steel marrying roll instead of the industry standard rubber roll. It will produce new products for the business, a kitchen towel and toilet tissue. "We're also doing four-colour printing with the Futura line," he says. "We're seeing an increase in demand for 2-ply products, simply because people have more money now and are beginning to consume different sorts of products."

The business is on the lookout for a third napkin line and it has plans to make the investment by 2015. "We are seeing a big increase in demand for napkin products in Argentina," Schiaffino says. "This demand has mostly come from some tissue production leaving the market here."

"Consumers are also asking for higher quality products," he adds. "And in the last five years we've seen an increase in demand for decorated tissue products. We're the pioneers of printed tissue in Argentina. We started 20 years ago printing on kitchen towels and napkins. Now, we are the only company that can make these products."

Quirks of the company's products also include 8m long three, two and one ply products. Gagliardi says the one ply market is a special market in Argentina and the company produces a lot of three rolls at 8 metres. Demand for two-ply tissue products is also increasing because people have more money to consume that sort of product and they see the difference between one and two ply and then don't want to go back to one ply. "Our 80m single ply is very successful, but consumers are asking for more quality. In the past five years, decorative tissue has also increased. We're the pioneers of printed tissue in Argentina. And now we're the only ones that can make it in six colours."

As for the country's location to Brazil, Gagliardi adds that the



The new Futura Tango Line that prints in 4 colours

tissue trends seen there aren't necessarily reflected in the Argentinian market. "We don't follow Brazilian trends, we're not competitive for Brazil. But we do export into Chile and Uruguay."

He adds that the company's strength is its technology. "We want to go forward focusing on technology, efficiency and high quality products. With this new machine, we want to grow all our products. We have a 7% share in the

'We want to go forward focusing on technology, efficiency and high quality products.'

Argentinean tissue market and we're looking to grow that. We want to have 10% by 2015. We have our new line and then the new converting line, as well as being the first and only mill that has a totally automatic stacking system which was supplied by Electric80 and is the first in the world in the tissue industry that has five floors.

"We will build a new production area also to house the new line. Our philosophy is to always move and develop across every aspect of our business. Our aim: to provide quality in the product through our technology. Technology is our vision."

FACTFILE - Papelera San Andrés de Giles

Location - San Andrés de Giles, Argentina

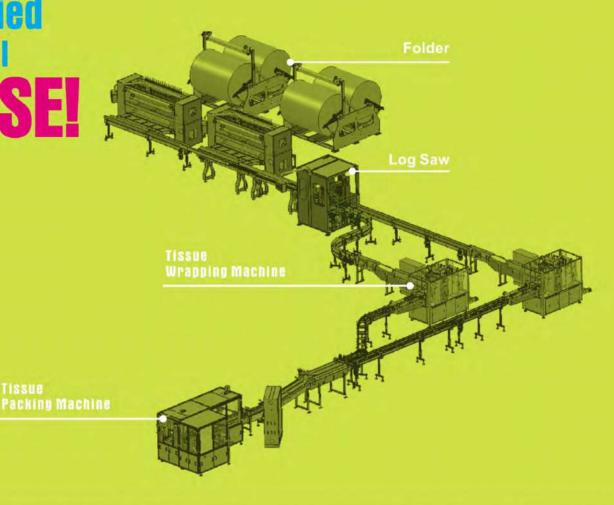
Founder - José Sassone

Staff - 140

Machines - PM1,Toscotec-supplied machine. Two converting lines supplied by Perini and Futura

Products - toilet roll, handkerchiefs, napkins

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MAX PACKING SPEED
24BUNDLES/MIN



Full auto servo control
MAX PACKING SPEED
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Seizing the future for tissue

As producers of high quality BEK pulp in Argentina, Celulosa Argentina has "a strategic advantage" to produce tissue papers in a rapidly growing market. TW visits the business to talk market strategy and investment

t's an interesting time for Celulosa Argentina to choose to move into the tissue market. The Argentinian tissue industry continues to report progressive figures despite the country's ongoing economic problems; it's following the global tissue growth rate of 3-4% and shows strong value growth across almost all FMCG categories.

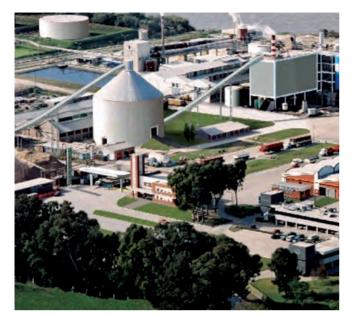
In 2013, retail tissue is set to register 28% value growth while tissue consumption remains at around 3.2kg per person; a figure that has changed little over the last five years.

Celulosa Argentina's chairman Douglas Albrecht says the company's principal motivation to move into tissue is its strategic advantage to produce tissue papers in a rapidly growing market. "We are the only producers of high quality BEK pulp in Argentina," he says. "We have important logistical synergies that will integrate well into the manufacture of parent rolls. Given our operational excellence and strong infrastructure, we are responding to the demands of key brand companies to provide them with a more complete solution that enables them to focus on their consumer goods business while we focus on industrial production, which is our core competency."

Celulosa Argentina's tissue expansion plans will add 30,000tpy of high quality tissue to the market. The company signed for a new Voith-supplied TM in September, which will be installed at its Capitán Bermúdez mill in Santa Fe and is expected to be up and running in January 2015. Speaking from his office in Buenos Aires, the company's corporate manager of institutional relations Osvaldo Vassallo explains, partly in English and partly through a translator, that the machine will enable the company to get a foothold in an area of the paper industry that is seeing "substantial growth". He says: "With this move we are continuing to

pursue our long-term growth plans. We analysed the international markets for paper and the tissue and wrapping paper markets are growing the most. So we decided to diversify and in 2015 we will start to supply jumbo rolls to tissue converters in the local region as well as abroad."







A section of the company's Capitán Bermúdez mill and part of the Bielomatik cut size machine

Established in 1929, Celulosa Argentina manufactures and distributes sustainable products to the domestic and global markets. It owns three paper mills; Capitán Bermúdez, Zárate which is close to Buenos Aires and Juan Lacaze in Uruguay. Its present business units are paper, cellulose pulp, forest, wood and distribution, and it manufactures printing and writing paper, coated and non-coated paper, packaging paper, conversion and speciality paper. Vassallo says the market is declining in these areas all around the world. "We saw a big opportunity to move into tissue," he says.

This is the market breakdown in and around Buenos Aires, with all tissue producers at full capacity: total consumption 300,000tpy; La Papelera del Plata 120,000tpy, CMPC 100,000tpy, Celu Paper 60,000tpy, Samseng 35,000tpy, Kimberly-Clark 23,000tpy, Papelera San Andrés de Giles 18,000tpy, Celulosa Campana 25,000tpy; and Valot 12,000tpy.

Celulose Argentina's Voith-supplied tissue processing line will be supplied as a Process Line Package (PLP) - the VTM 1 production line has a wire width of 2,760mm and runs at 1,800m/min, producing 30,000 tonnes of 15-21g/m² basis weight toilet tissue and kitchen roll from virgin fibre. Vassallo says the new line offers benefits in operating costs and energy efficiency as well as sustainability. The business will use virgin fibre, and while he adds that there's room for both virgin and recycled fibre in the Argentinian tissue market, he says there isn't much demand for recycled tissue products from consumers. "We needed to invest in a state-of-the-art machine that was key for us. But our social responsibility is also very strong. We want to be environmentally responsible. We have FSC and ECF and so we have no problems with importing or exporting our products."

The company is trying to generate agreements with "the most important tissue companies in Argentina". At this stage it will just be selling jumbo rolls to converters, but around 30-40% will also be for export. It currently imports around 17,000tpy, primarily into the Uruguayan marketplace, while it exports around 10,000tpy.

Vassallo adds: "Argentinian tissue consumption is basically located in and around the Buenos Aires area. There is an advantage for any country that produces its own tissue products and the relationship with what you can transport by track here is very important; it's very expensive to transport, so its possible to gain a competitive advantage."

With the location of Argentina, how do the trends seen in the Brazilian tissue market impact the country? Vassallo says tissue is more developed in the Brazilian tissue market; consumers there want two and three ply products, while 1ply makes up 70% of the market in Argentina. "The 2000 crisis we had here .. the market was interrupted because the economic crisis was so deep," he says. "So single ply at very good quality was the most popular. Now the problem is to change the mindset of the consumer from one ply to two ply. We see two ply as an opportunity, and it is the grade that leads the market here."

Salaries in Argentina are generally improving and people have more disposable income and are demanding better products. Around 7% of the country's 42 million population fall into the ABC1 consumer segment, receiving 37% of the total income, and most of which live in Buenos Aires.

"Over the past few years, here has been demand from the ABC1 segment for better products," Vassallo says. "Kitchen roll, for example, was used very minimally 10 years ago. Now it's irreplaceable. Same for diapers: try telling a parent to go back to not using them. We have a great opportunity here."



Generation gain

Mum Jenny's eye for a bargain – and bringing home the bounty "by the truck load" – was a joke which became a family affair for the Lawrence household

oilet tissue paper has a funny place in our family. We have a family joke that my wife Jenny has a radar for bargain prices when it comes to toilet paper. Not that she is keen to buy cheap grades, far from it, it's just that when toilet paper is on sale it seems that we have to buy it by the truck load. As a result there is a cupboard in our hallway that regularly bulges with on-sale toilet paper, all good quality. Sometimes when our daughters come over to visit they have a laugh at their mother's toilet paper cupboard. But the funny thing is over the years quietly the same characteristic has played out in both our girls, who are now both in their 30's and also hoard loo roll.

Over the past decade both daughters have been traveling around the world having a great time before they settle down. Our eldest rang on Skype just the other day and told us the friends she is sharing a flat with in Lima all go shopping together but no-one wanted to carry home the toilet paper.

Because Sarah had grown up buying and often carrying rolls in bulk it was nothing for her to balance packs on her head and under her arms through the streets of Lima.

Emily, our youngest, was telling us that she had the same experience in Auckland a couple years earlier. In New Zealand, the All Blacks rugby team

'Sometimes when our daughters come over to visit they have a laugh at their mother's toilet paper cupboard.' are near god like creatures, anyone who knows about international rugby knows this. They admit they are poor losers when it comes to rugby only because they rarely lose. Emily worked for a firm based in Auckland which are keen sponsors of NZ rugby, (actually, this is like almost every business is in NZ). Often rugby players, sometimes a couple of the All Blacks, would drop into the office to thank the business for their support. Of course the women and girls would almost faint and could hardly speak at the sight of god like men. One work day Emily had to buy the office supplies, so she walked to the local shops to buy some emergency things, one being toilet paper. The company's sales manager rang Emily on her mobile phone to say he was at the gym for a quick lunchtime work out. Sonny Bill Williams, perhaps the best known All Black, was at the gym in the boxing ring and she should get there quick. The toilet rolls disappeared over a garden hedge!



Dear Client,

Thanks to your experience and vision, combined with our innovative solutions, we are now proud to announce that we have delivered more than 150 projects in over 30 countries. We have come a long way since 2002, and today Futura is represented by a dedicated team of some 130 people at its headquarters and manufacturing site in Lucca, Italy, Sales & Service centers in Alpharetta, USA, and Joinville, Brazil, and Service Centers in Shanghai, China and Melbourne, Australia.

Our results are rooted in the belief that every component of a Futura converting line should offer ultimate simplicity, total safety, and absolute reliability. The aim? To ensure the best operating equipment efficiencies and lowest total cost of ownership. And to maintain our leadership we invest substantial resources in R&D at our Futura Lab innovation Center.

But the innovation behind Futura's converting solutions is also inspired by principles of environmental sustainability, creating what we call Futura Sustainable Technology. This is technology which allows you to reduce not only energy consumption but your waste levels and space requirements to the very minimum while increasing profitability. It is also appreciated by line operators and maintenance technicians who can be fast, productive, effective and above all safe as they carry out their work. Ultimately, it means More with Less.

For this reason special attention has also been focused on our Procare service division which has recently introduced ProTablet. This new documentation system allows users to view 3D maintenance video procedures where and when necessary. It also allows access to exploded views, procedure search by means of barcode, manuals and diagrams. It's one tool, always up to date.

Technology, Service, and Sustainability are key aspects of what we do and what you do. But it is clear that everything hinges on your ability to give great value to your final products - products that are sure to continue in their development from your side. The technology you choose must accompany you in this journey.

This is a journey of innovation, sometimes of revolution. But when projects are carried out with a spirit of partnership then success is almost guaranteed.

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Leadership takes many forms: a passion for work, team spirit, an aspiration to exceed expectations. We believe that you share these values with us.

Thank you for your trust and here's wishing you the greatest success in the future.

Sincerely, Futura

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Note

PIX values, \$ or € / metric ton

Product	PIX latest valu	es	
Pulp NBSK USD	896.51	\$	
Pulp NBSK EUR	666.05	€	
Pulp BHKP EUR	572.49	€	
Pulp BHKP USD	770.57	\$	
Paper LWC	662.18	€	
Paper Ctd WF	666.88	€	
Paper A4 B-copy	835.65	€	
Paper Newsprint	472.91	€	
Kraftliner	583.04	€	
White-top Kraftliner	760.89	€	
Testliner 2	475.68	€	
Testliner 3	450.84	€	
RB-Fluting	442.79	€	
PIX OCC 1.04 dd	112.54	€	
PIX ONP/OMG 1.11 dd	130.61	€	

PIX Pulp indices 19.11.13

NBSK pulp Europe

Pulp Week in London ended more or less where it started. Suppliers showed optimism over the volumes and expected the prices to continue moving up in the near-term future. Buyers were reminded of growing volumes through approaching BHKP capacity increases, releases of more market pulp from integrated producers after PM shutdowns and, possibly, dissolving pulp capacity being used to produce fluff or paper grades pulp following the anti-dumping duties decreed by the Chinese authorities on selected dissolving pulp producers. The latter may or may not be seen but the decision does make further conversions to dissolving clearly less attractive. Difficulties to raise paper prices are another hindrance to pulp price hikes,







Change from previous week		%	Change fr beg .of ye	om ar	%
0.53	\$	0.06	87.14	\$	10.77
-1.05	€	-0.16	52.10	€	8.49
-0.31	€	-0.05	-15.62	€	-2.66
1.24	\$	0.16	-4.74	\$	-0.61
1.13	€	0.17	-26.38	€	-3.83
0.31	€	0.05	-29.64	€	-4.26
2.63	€	0.32	-27.24	€	-3.16
0.22	€	0.05	-22.66	€	-4.57
-0.42	€	-0.07	-0.97	€	-0.17
-0.57	€	-0.07	-16.66	€	-2.14
0.00	€	0.00	49.59	€	11.64
0.61	€	0.14	49.35	€	12.29
0.44	€	0.10	56.70	€	14.69
0.36	€	0.32	3.86	€	3.55
-1.00	€	-0.76	2.38	€	1.86

according to the buyer-side. For the time being, at least, softwood pulp market remains firm. Euro strengthened this time by 0.2% against the USD. Our PIX NBSK pulp index moved up by 53 cents, or by 0.06%, and closed at 896.51 USD/tonne. When converting this dollar-value into euro, the strengthening of the currency against the USD meant that the benchmark retreated by 1.05 euro, or by 0.16%, and the PIX NBSKP index in Euro landed at 666.05 EUR/tonne.

BHK pulp Europe

After high hardwood pulp shipping volumes registered in September, and a consequently large drop in BHKP producer stocks, the October data is awaited for with a particularly high interest as those numbers could well

be the decisive driver in determining the direction (or flatness) of price movements in December. Exchange rate movements remain another key question mark. In Europe, some

'Suppliers showed optimism over the volumes and expected the prices to continue moving up in the near-term future.'

improvement in graphic and specialty paper order books in October supports purchasing volumes as consumer stocks are low but elsewhere in the world, high delivery volumes in September (104% delivery-tocapacity ratio!) could mean stocks of pulp near buyers have risen. Euro strengthened by 0.2% against the dollar from the previous week. After removing the top and bottom 10% of the quotes and with the restrengthened Euro, the PIX BHKP index fell by 31 euro cents, or 0.05%, and closed at 572.49 EUR/tonne. The PIX BHKP index value in dollars moved up by 1.24 dollars, or by 0.16%, and settled at 770.57 USD/tonne.

All dates and figures are the most upto-date at the time of going to press.

Cutting energy costs and improving product quality vital priorities

Tissue World interviews the world's main tissue machinery manufacturers to get the latest on their technical and commercial know-how

TW/1: WHAT HAVE BEEN THE MOST IMPORTANT TECHNICAL DEVELOPMENTS AT YOUR COMPANY DURING 2013 AND WHAT CAN WE EXPECT IN 2014?

Rogério Berardi, global vice president for tissue machines, Voith Paper:

"We have been working on a technology that makes tissue production more energy-efficient and increases paper quality. As soon as we have finished all tests, we will be able to present this new solution."

Marcelo Santos, application engineer, Hergen: "In 2013 we established our new tissue machine families which offer small mills as well as big players high quality solutions at a fair cost. We have also developed the shoe press solution for tissue which is designed to reduce energy consumption on high quality tissue production. In 2014, we expect to consolidate Hergen as a reference company to supply Steel Yankee dryers and by the beginning of the second trimester we will start up our new manufacturing facilities that will enable us to reduce delivery time and broaden the size range we offer with diameters from 2,500mm to 7,320mm and with a paper width of 5,600mm."

Shinji Goda, manager, design department, Kawanoe Zoki: "Our



'Clients face three major challenges - request for better paper quality by consumers and supermarkets, higher costs, and at the same time to be as sustainable as possible.'

Voith's Rogério Berardi

BF tissue machine pursues energy saving technology. The development of our BF-1000 series aims at cutting energy consumption while increasing production capacity by optimising every component and device in the BF tissue machine.

"In 2014, BF-1000A, which boasts even higher production and high efficiency, will be introduced to the market. We will also launch our tissue converting machine business overseas."

Ingmar Andersson, sales manager, tissue mills, Metso: "The Advantage NTT technology has undertaken full commercial operation confirming high speed operation and production capacity that has exceeded any other technology due to the technical refinements made."

Davide Mainardi, sales and customer care director, Toscotec: "Our most important technical developments in 2013 were generated by a wide variety of design solutions and R&D that we offer along with our sister company Milltech. We have supplied the tissue industry with several types of machines that have a wide variety of drying solutions starting from the application of our second generation of Steel Yankee TT SYD with exhaust hoods, gas fired hoods, steam heated hoods and hybrid hoods. This last application was very successful in countries where a lack of natural gas is an issue.

"Cogeneration application was also a very sensitive subject that we have been worked with great success in practical field application. Among the different new concepts we have introduced into the market we can list: TT DOES (new modular approach, available both for rebuilds and for new production lines, combining the application of the last technology developments of the TT Pressing System, TT SYD and the low carbon footprint Milltech Yankee Hood), and TT SAF (the energy saving solution for the approach flow)."

Marco Ginesi, senior sales application engineer, Recard: "We have developed and installed a new concept of tissue



'In 2014, BF-1000A, which boasts even higher production and high efficiency, will be introduced to the market.'

Kawanoe Zoki's Shinji Goda

machine named "Easy Crescent". The main characteristics of this machine are: reduced civil works delivery time and costs, reduced erection time and costs, consequent reduced total project costs, reduced energy consumption, easier maintenance and easier operation.

"This solution is the natural development from the experiences gained from more than 50 years of activity and manufacturing and installation of 118 tissue machines across five continents. The tissue machine is designed according to the most modern concepts and technical solutions and keeps the features of all Recard machines. Even in the year 2014 we will focus our attention in developing energy saving solutions."

Ivo Olibano, sales and customer care director, A. Celli: "Traditionally, A. Celli Paper has focused on development and technical innovation. Today, technical differences among companies are minimal and attention to detail is the focus point. A. Celli's production is pursued along two macro categories: paper machines and rewinders. In 2013, we presented our non-stop rewinder with automatic reel change during It's Tissue in June. This will also be our point of strength for 2014: energy savings across the entire line. We will also pursue our focus on greater customer attention and satisfaction. We will be working on all PM components with a view towards this. In 2014, special attention will also be given to our machine for structured paper: it's a machine with similar features to TAD, but with extremely reduced energy costs, thus meaning great savings."

TW/2: WHAT ARE THE KEY TECHNICAL OPPORTUNITIES AND CHALLENGES FACING YOUR CLIENTS?

Rogério Berardi: "Our clients are facing three major challenges today: request for better paper quality by end consumers and supermarkets, higher costs, mainly energy, and at the same time to be as sustainable as possible. To respond to this, our goal is to be our clients' partner as well as a technology leader and in the last six years we developed major breakthrough technologies:

- The ATMOS technology for premium tissue production with 60% less energy consumption and much simpler operation than other available technologies in the market for premium tissue production. Right now, there are five installations up and running successfully in developing and developed continents such as South & North America and Western Europe.
- The second generation of shoe press, named NipcoFlex T, which is able to decrease energy consumption up to 15% and increase bulk by 5%. As a good example of its success in the



'Energy issues, sustainability, user-friendly machines and more usages of short fibres have created the need to develop customised solutions.'

Toscotec's Davide Mainaidi

market, in just four years more than 15 new shoe presses were sold in all major markets from all continents worldwide including South and North America, China, western and eastern Europe.

• The Voith Steel Yankee with robust

technical theme

- design delivering the same reliability as the Voith Cast Iron Yankee cylinders. In only three years of existence, more than five Voith Steel Yankees were sold and some are already in operation.
- As Voith offers clients worldwide products for the entire tissue process, we have also worked to develop new technologies in other areas, such as:
- Stock Preparation with the new IntensaPulper for 30% less pulping energy, the TwinFlow refiner with Pluralis disc:
- Fabrics and rolls with the new Evolution press felt for conventional tissue machines, SolarSoft covers for suction press rolls, both for higher after press dryness, thus, less thermal energy usage."

Marcelo Santos: "In our market energy consumption reduction is the biggest challenge our clients are facing. For Hergen, this is a great opportunity to supply our Steel Yankee Dryers. Recently we have replaced some cast iron dryers and our customers are pretty satisfied with production increase in some cases up to 20%. Cases like this have a huge impact on the tissue market and for the coming years we believe we will have more and more similar opportunities."

Shinji Goda: "A decline in operation efficiency and technical skills resulting from a shortage of skilled technicians and operators exemplifies the challenges our clients face. Our services and products ensure efficient and stable operations that are less dependent on operators' skill. Sophisticated usability and functionality in our technology improve operational environments and sets a new standard for machine operation."

Ingmar Andersson: "New technologies are launched continually, it is challenging to make investment decisions and when to take on such

new opportunities and abandon the existing ones used."

Davide Mainardi: "Most of our implementations have been applied thanks to the continuous cooperation with final end users. We are the company that has introduced into the market the revolutionary Steel Dryer and our lengthy experience of 13



'Emerging markets are mostly looking for proven technology at reasonable cost. However, energy and water conservation are also becoming important.'

Metso's Ingmar Andersson

years puts us at a primary position if compared with our competitors. When we introduced it there was a lot of concern due to the conservative vision of the industry.

"Another important issue that brings us closer to our customers is that we really are now a global supplier that offers a wide range of solutions from stock preparation, tissue machines (conventional and TAD up to 6m wide),

Steel Dryers (up to 22' diameter and 8.2m shell width), hoods and drying solutions, up to winders. Our add-on value then lies in the capability to manage turnkey solutions and complex rebuilds that support the customer from the start of the project's evaluation phase. Our implemented service and follow up offers portfolio, as well as our worldwide presence with agencies and with two subsidiary companies in China (TT Asia and Pacific) and the United States (TT North America) can close the whole cycle of the tissue machinery business."

Marco Ginesi: "The main challenges and opportunities are the reduction of energy consumption, plant reliability and the "user-friendliness" of the paper machine. By means of our large experience in the tissue field we have been able to simplify our machinery by increasing its performances and reliability."

Ivo Olibano: "Customer care and customer service are determining factors. Our relationship with customers, our speed in answering their needs and demands is a great asset. In 2013, we implemented MySp@res® - an innovative system for the handling and managing spare parts. MySp@res® is the innovative on-line post-sales support service where customers can find, localise and request an estimate for every spare parts component, quickly and easily accessing information on their machines and best managing data, processes, resources and the lifecycle of their equipment, for greater efficiency in promptly answering the demands of an increasingly frenetic market. We will continue investing on this."

TW/3: WHAT TECHNICAL DEVELOPMENTS HAVE YOU MADE IN TERMS OF ENERGY?

Rogério Berardi: "ATMOS for premium quality, NipcoFlex T for conventional quality, Steel Yankee, IntensaPulper, Pluralis refiner discs, Evolution press felt, SolarSoft, etc."



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Organisers:







Marcelo Santos: "In addition to Steel Yankee Dryers, we have developed the shoe press for tissue that targets the reduction of steam consumption on high quality tissue production. This technology can reduce the required drying energy by up to 20%."

Shinji Goda: "Today, energy saving and efficiency hold the key to success in any industry and our pursuit remains focused on this open-ended challenge. Examples such as heat-recovery systems, high-efficiency Yankee hood and CBC creping blade control have been a great success and contributed to energy saving in tissue making.

"High efficient refiner, BF-DD6000, which applies spline-technology, is another example of our approach to cutting energy consumption."

Ingmar Andersson: "A new version of the Advantage ViscoNip press delivering outstanding dryness thus further reducing energy for drying."

Davide Mainardi: "In addition to our continuous evolution and efforts, we continue to invest in the optimisation of headboxes, new pressing technology, the second generation of TT SYD (low energy consumption and low carbon footprint) and heat recovery in the steam and hood circuit. During the past two years, we have worked on continuing to optimise solutions to save energy and fibre in the whole process. Pulping is one of the most energy demanding processes and we have developed and launched the TTPulper – VP, a new series of medium consistency pulpers with very efficient slushing and low power consumption.

"Refiners have also been studied in order to propose the right fillings pattern depending on the fibre type and application. Within the TT SAF® (Short Approach Flow), a new Pressure Screen – AFS series has been designed, with high de-flocculation effect and low power consumption.

"In terms of process plant optimisation, the whole concept of the same plant has been revisited due to the adoption of 3D plant modelling during the design phase."

Marco Ginesi: "We have developed the Easy Crescent concept that produces paper with low energy consumption.



'We are giving a lot of attention to stock preparation and approach flow systems.'

Recard's Marco Ginesi

In February 2013 we started up a turnkey plant in Tunisia equipped with cogeneration system using the exhaust fumes coming out from the gas turbine to feed a recovery boiler and the Yankee hood. We optimised the plant's energy consumption because all the steam and hood hot air necessary to run the paper machine is produced by the energy contained in the turbine exhaust air.

"We are also giving a lot of attention to stock preparation and approach flow systems by designing them with the purpose of simplify them and reduce their energy consumption."

Ivo Olibano: "Attention to energy savings is a fundamental part of our strategy for the optimisation of every aspect of production. Special attention is focused on the Steel Yankee and heads insulation. The A. Celli patent for this product is innovative and leads to big energy savings."

TW/4: WHAT TRENDS ARE YOU SEEING IN TERMS OF TECHNICAL DEVELOPMENTS IN EMERGING ECONOMIES?

Rogério Berardi: "Emerging economies such as the BRICS are all requesting better paper quality as the standard of living improves every day. The issue of sustainability had been neglected in many emerging markets over recent years but this is becoming more and more important as these economies develop."

Marcelo Santos: "One issue that is common to most emerging economies is the lack of gas, so for these countries we believe the machines will feature a big Steel Yankee dryer and one steam heated hood (or even an extraction hood). This combination is quite successful in countries such as China where many machines with such configuration have been recently installed. On such projects the use of a Steel Dryer is quite an advantage compared to the standard cast iron because it is safer and gives far better results from a production point of view. The project for such countries must foresee the rational use of fresh water which is an important issue not only for emerging economies but also worldwide "

technical theme



'All companies are looking for ways to improve production and save energy and the Steel Dryer is the easiest way to achieve both.'

Hergen's Marcelo Santos

Shinji Goda: "It is very difficult to generalise the technical developments in emerging countries where such variety of needs exists. We believe it is important to offer a machine which suits and satisfies market needs respectively. Our expertise in total engineering and wide product range will satisfy each client's specific needs, such as initial investment cost, running cost, payout time and utility consumptions."

Ingmar Andersson: "Emerging markets are mostly looking for proven technology at reasonable cost. However, energy and water conservation are also becoming important."

Davide Mainardi: "If we are looking to

the BRIC countries there are different approaches to the business because of a variety of factors such as energy availability, raw materials, market requirements and country habits. The factors in machinery design are different; mostly the areas of focus are the usage of different types of raw materials, from bagasse to slush pulp, from waste paper to virgin pulp, energy and sustainability factors and the quality of the final products. Africa is also becoming a good opportunity. In this case the technology gap if compared with western Europe still exists even if there are already some good examples of advanced technology application especially in the waste paper process."

Marco Ginesi: "Emerging economies are looking for reliable and easy to operate machines, low energy consumption plants and good technical support from the supplier. Since its origin, Recard has focused on satisfying over and above customer needs."

Ivo Olibano: "In emerging countries, qualified machines are needed. These are areas that do not require very high production rates (30-40tpd) but they still require attention to technology (efficiency, reliability, quality). The tissue industry follows the converting field as far as developments/ innovations are concerned because it's a more innovative field per se than papermaking. The A. Celli companies are working on the need to propose crescent former type machines that are also appropriate for smaller production."

TW/5. IN TERMS OF TECHNOLOGY, HOW WILL THE TISSUE INDUSTRY HAVE CHANGED IN FIVE YEARS TIME?

Rogério Berardi: "The progress of the tissue industry will substantially depend on global economic stability



'Special attention is focused on the Steel Yankee and heads insulation. The A. Celli patent for this product is innovative and leads to big energy savings.'

A. Celli's Ivo Olibano

and growth and therefore will provide a better and more stable standard of living in emerging countries and developed countries and regions such as the USA and western Europe. Rising energy costs will play an important role in major markets and the developments for oil/gas supply in the US can change the tissue industry footprint in that important market.

"Having said that, all new developments will continue to target less energy consumption, higher paper quality and less environment impact in both emerging and developed countries."

Marcelo Santos: "We believe that within five years Steel Yankee dryers will outnumber standard cast iron

dryers because all companies are looking for ways to improve production and save energy and the Steel Dryer is the easiest way to achieve both. For the big players, the use of the shoe press for tissue making will be a kind of new trend in terms of production gain and energy savings.

"Water consumption is also becoming more important year after year and companies are working very hard to produce high quality products (even with waste paper) and reducing fresh water requirements. This will definitely play a major role not only in tissue but also in paper making."

Shinji Goda: "The industry's focus has shifted from production capacity to energy-saving. Regardless of machine size or production volume, energy efficiency is now the top priority. Energy-saving developments are at the next phase, which is the recovering of raw materials and water in addition to energy. Including these energy-saving solutions, our focus is to offer innovative technology packages such as fully automated tissue machines and converting machines to our clients."

Ingmar Andersson: "The newest so called hybrid technologies are well established and changing product qualities to bulkier and softer grades saves on energy and fibre significantly for premium qualities."

Davide Mainardi: "Conventional technology is still driving the market in spite of the introduction of new technology alternatives to TAD for producing structured tissue. The world economy has shifted so now each customer is cautious when making an investment and investigating the pay back. Energy issues, sustainability, user-friendly machines and more usages of short fibres have created the need to develop customised solutions. The Steel Dryer is now definitely considered as an optimum tool in tissue making."

Marco Ginesi: "The tissue industry has been looking for simple and low investment plants that also have high productivity and reliability. The continuous research in reducing energy consumption is one of the most important matters."

Ivo Olibano: "The road to energy savings. Unique Selling Propositions (dedicated machines) in the design and further collaboration with customers. Our companies are centres of excellence for our customers. Together we study their specific production needs and the machines with attention to consumptions and hence to savings. We provide immediate answers for post-sales, such as MySp@res®."

Rev up creping performance.

Take the lead with high performance Yankee coatings from Buckman.



Buckman's unique coating chemistries are specially formulated to promote uniform adhesion and more microcrepe. So you can have more control over sheet characteristics, increase bulk and softness, and, ultimately, be more competitive in the marketplace.

Look to us for other new technologies too. Softeners, strength resins, absorbency aids, fiber modification and more. We can help you take your creping process and your tissue to the front of the pack.

To learn more, contact your Buckman tissue representative, or visit **buckman.com**.

Buckman

Commitment makes the best chemistry.

Show Preview: Tissue

Listed in alphabetical order and updated as of 27 November 2013

issue World Americas 2014 in Miami is the key meeting point for the tissue industry in the Americas. The show attracts key tissue industry professionals, tissue makers, converters, suppliers, retailers and distributors offering a unique opportunity for them to meet, exchange ideas, network and learn.

While aimed primarily at the North and Latin American markets, visitors come from over 50 countries from all over the world to see what is on offer. With its continuous growth, the tissue market in the Americas is offering huge potential to international exhibitors who are looking to develop their business and Tissue World Americas is the perfect place to cultivate new opportunities in the region.

Tissue World Americas focuses on product innovation and sustainability and provides valuable content for buyers and decision makers at the event. We also ensure that our international exhibitors are better equipped to trade in the Americas by providing them with the opportunity to

meet industry leaders and influencers.

This year also marks the special launch of the brand-new Retail and Distributors Insight Forum. At the world's largest tissue trade show, retail and AfH tissue managers can now gain unique valuechain insight. A concise new learning experience, the Tissue Retailers and Distributors Insight Forum (TRIF) will give tissue sourcing, category and business development managers unique insight and understanding of the \$80 billion tissue products category. Specifically designed for retailers and AfH distributors, the two day TRIF will be combined with the well-established four day Tissue World exhibition of vendors and high-level market, management and technical conference sessions. Multiple learning benefits come from the crossfunctional value matrix at TRIF. Retail and AfH people, as well as all other players in the business, can now get complete and in-depth insight into the entire tissue value chain, from fibres to

Numerous benefits and deeper knowledge of both capabilities and

potential can be gained. All key functions in the tissue value chain can easily meet to enable a cross-functional learning matrix of communications, cooperation and innovation to create more value. The cross-functional mix of attendees includes:

Retailers/AfH buyers-category managers, sourcing, business development, facility services, technical, product innovation and consumer insight people.

Manufacturers – technical experts, business development, sales, marketing, consumer Insight and innovators.

Technology suppliers – technical experts, sales, R&D visionaries and innovators.

For more information visit: www.tissueworld.com

What follows are previews of the many new and long-established companies that will be exhibiting and offering their latest input at TW Americas. Listed in alphabetical order and updated as of 27 November 2013.

9. SEPTEMBAR

9. Septembar is a producer of tissue

converting machinery from Serbia,
Europe. The company has successfully
produced machines for napkin and
handkerchief production for more
than 30 years. These production lines
include also printing sections, up to six
cols with perfect printout (based on
German technology) and lamination
section and wrapping units. Production
lines represent real turnkey solutions.

Various models fulfill customer demands, from hobby programme and start-up machines to fully automated production lines that connected to its factory 24/7 via the internet.

These machines successfully operate in more than 40 countries in four continents from Russia to central Africa, Brazil. the USA and Canada.

ABK GROUP

(#1320)

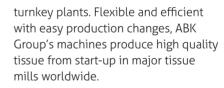
ABK Group is a global company with factories in France and Italy specialised in the design and



2,200mpm. Scope of supply includes

individual equipment to complete

(#1350)



ABSOLUTE ENGINEERING (#100)

Absolute's carbon fibre doctoring systems are designed and specified by the team that produced the world's first carbon fibre chamber in 1990. In the past 18 years it has produced thousands of carbon fibre doctoring systems to improve the performance of virtually every type of flexopress manufactured. It provides systems for corrugated printers, tissue decorators, label machines, litho tower coaters, newspapers, coating units, envelope printers.

It has installations on every continent and most countries, along with a team

World Americas 2014

of engineers who constantly travel the world to install and commission its equipment. They then train the operators in the best methods of optimising the equipment's performance immediately.

Its technical team utilise a base of knowledge that encompasses Aerospace, Formula 1 and Supercar production, high specification sailing yachts and defense products. The same technology and standards are incorporated into its inking systems ensuring absolute consistency and performance.

AMEC

(#1345)

AMEC is a market leader in tissue mill consulting



and project implementation. It has studied, designed and constructed some of the world's newest and most technologically advanced tissue machines and converting lines. In the last 15 years, AMEC has delivered over 70 significant tissue projects.

Its services include energy studies, bottleneck analysis, detailed design engineering, controls engineering, construction management, start-up support and training. AMEC's ability to understand clients' objectives and provide custom solutions that bring value and predictable results has resulted in long term relationships with leading industry players.

AMEC is a focused supplier of consultancy, engineering and project management services to customers in the world's oil and gas, mining, clean energy, environment and infrastructure markets. With annual revenues over US\$6.6 billion, AMEC designs, delivers and maintains strategic and complex assets and employs over 29,000 people in 40 countries. See amec.com.

AMS

(#500)

AMS – Asset
Management
Service – is the
TMC Network company which supplies

support, technical service and spare parts in the sector of tissue automated packaging machines; its foundation derives from the customer's need to have a reliable and qualified partner for the management of the system's production life.

Customer satisfaction is the primary goal and driving force behind AMS: the proactive approach of on-time and competent service is making AMS the benchmark for the after-sales services.

AMS is a worldwide structure serving clients for the maintenance of tissue packaging systems; Direct Service Branches have been established in USA and Brazil, spare parts distributors and local workshop are active in China, Russia and Mexico.

AMS is your service consultant.

ANDRITZ

(#800)

ANDRITZ PULP & PAPER is a global market leader in



the supply of systems and services from the woodyard to paper finishing. The ANDRITZ tissue technology group customises (conventional and TAD) as well as standardised tissue machine concepts (COMPACT). Ventilation and drying systems as well as energy saving solutions complement the portfolio. The tissue machines can be equipped with a PrimeDry Steel Yankee, a PrimePress XT shoe press, and a PrimeDry HeatRecovery ReEvaporation system which all help to achieve remarkable savings. Ventilation and drying systems complement its product portfolio.

ANDRITZ is also a leading global supplier of stock pumps, fibre preparation systems and equipment for the provision of fibre, supplemented by sludge, reject and internal water loop handling. Service activities are focused on assisting customers to increase their operational efficiency while reducing operating costs.

Link: http://www.andritz.com/noindex/pf-detail?productid=11081

Contact: tissue@andritz.com

ANHUI JING CHENG PAPER PRODUCTS CO., LTD

(#1060)

Anhui Jing Cheng Paper Products Co., Ltd was established in 2009 and is located at Hefei Economic & Recycling Zone, China, where it occupies 59,000sqm building area with 380 staff and 40 administrative staff. It focuses on producing daily use tissue, disposable medical use tissue and other relevant tissue products. The total output of the company is around 36,000MT. Its products are exported to South America, Europe and some other countries worldwide. The company is certified to: ISO 9001:2000. ISO 13485:2003, ISO 18000:1999 and ISO 14000:1999, CE. The company said it will always prioritise quality first as well as customer supremacy and sincere cooperation.

APPLETON MFG. DIVISION (#3240)

Appleton Mfg. Division is a fully integrated engineering, design, sales, service and manufacturing film dedicated to providing innovative products and superior customer service. It offers a full line of core cutters, custom and semi-custom core handling and finishing equipment, compact battery powered movers, Safe-SlabTM Core Recyclers, cleaning showers/systems, as well as parts and service for all lines.

ASHLAND

(#435)

Ashland has been providing the right people, products and applications insights to the tissue and towel industry for nearly nine decades, enabling tissue and towel operations to balance cost, quality and performance. Through its long-term R&D efforts, it has developed a proven portfolio of creping and release chemistries for both light dry crepe and structured sheet operations. With its modeling and simulation capabilities, its scientists can analyse every detail of creping and release. This

allows it to make recommendations grounded in hard science, which allows the customer to reduce on-machine risks and produce high-quality tissue and towel products. As a result, it is the leading supplier of specialty chemicals to the tissue and towel industry and the number-one selected supplier for machine startups.

Experience the Ashland Advantage today. Visit us at booth #435

ASTENJOHNSON/PAPERCHINE (#3008)

AstenJohnson is a global



manufacturer and technical services provider of paper machine clothing, paper machine equipment and custom rebuild solutions. With over 200 years of industry experience, it strives to offer the best integrated papermaking solutions and expertise to its customers. Its range of proprietary products for tissue has helped its customers achieve a sustainable competitive advantage. Moreover, its technical services division, Paperchine Quantum Solutions (POS), combines the engineering strengths and papermaking expertise within AstenJohnson to create customisable solutions. AstenJohnson will have tissue experts from PMC, POS, Paperchine and VIB Systems available to discuss your papermaking needs and challenges.

AUTOMATIC HANDLING, INT'L (#610)

Automatic Handling International, Inc. is the world leader



in providing automated solutions for the tissue and towel industry. Its main objectives are to reduce touches throughout the production process while improving efficiency, safety and reliability.

Come by BOOTH 610 and see the latest technology in Bale Handling and Dewiring Systems / Roll, Shaft and Core Handling Systems / Parent Roll Wrapping Systems / Parent Roll Storage Systems / Parent Roll Loading and Unloading Systems / Broke Management Systems / Roll Slabbing and Core Cleaning Systems / Core Joining and Management Systems.

AXIUM INC.

(#330)

Axium is a robotic case packaging and palletising automation solution



provider having developed extensive experience in the tissue and personal care industry. Its solutions are designed with flexibility and efficiency in mind. It ensures that its products are standardised to enable easy integration with existing production lines. These can be combined in a variety of ways and customised to meet each specific application.

Axium's packing solutions:

- · Handle irregular product (diapers, hygienic napkins, paper rolls, wet wipe tissues)
- · Work fast
- Fully automated zero change over systems
- Utilise 1+ production lines simultaneously
- Utilise vision system to reject no compliant products

Axium's palletising solutions:

- Proven solution for palletising unstable products (with or without pallet)
- Fully automated zero change over systems
- Flexible input/output configurations
- Full line of Axium peripheral equipment, including pallet dispenser, conveyors and pallet load stackers

B&B MAF PACKAGING SOLUTIONS

(#475)

B&B - MAF is an ownermanaged, mediumsized packaging machine manufacturer



and regards itself as a global innovative partner of the packaging industry. Some 130 staff are employed at the plant in Green Bay, WI, USA and in Hopsten, Germany. In the segment of end-of-line packaging, B&B – MAF is characterised by a high degree of know-how and experience in the handling of numerous paper products. Continuous development in this sector puts B&B

- MAF in a position to offer high-end packaging solutions for a multitude of tissue products: packaging of paper rolls (dispenser/system / industrials rolls, including plus-inserting); hygiene products (toilet paper, kitchen and folded paper towels); pre-packaged products (diapers, napkins, etc.).

BAOSUO MACHINERY & ALVAREZ TME

(#950)

Manufacture of folder machinery for facial, napkins,



towels and hankies, slitter rewinders and ULTRA series of high speed automatic rewinders for tissue and towels, accumulators, printers, tip to tip or nested embossers, steel to steel embossers, medium and high speed log saws and baggers.

BEIJING WANFPOWER TECH. (#370)

WANFPOWER, a China-German technical



joint venture, is China's leading manufacturer of pumps and agitators for the paper and pulp industry. It adopted the same standard with European peers and over 80% of its products are for exporting purposes. Its products cover all pumps needed in paper and pulp mills including process stock pump, fan pump, medium consistency pump, black liquid pump, water pump, multistage pump, single screw pump, submersible pump, mixer and agitator. Customers can get all pumps needed for their paper and pulp project from just one single supplier.

It has valuable know-how due following decades of cooperating with the paper and pulp industry and is willing to share this with its clients. Contact the company with any enquiries.

BRUNNSCHWEILER USA

(#1335)

Brunnschweiler is a major manufacturer of **BRUNNSCHWEILER** the following systems for the tissue industry Air technology for paper Inc with over 50 years of experience and a

across the world:



- High temperature, high velocity hoods
- Dust control and removal systems
- Mist removal and sheet stabilisation
- Trim handling systems
- Wet end and pulper exhausts
- Steam system basics
- Heat recovery and cogeneration systems

In addition the company offers machine hall ventilation, HVAC hall air conditioning systems and complete audit, engineering, manufacture, training and start up services for the tissue industry. Join the company in booth 1335 to discuss your problems and opportunities with its representatives.

BTG AMERICAS, INC

(#740)

BTG has recently announced the acquisition of Yankee



Dryer diagnosis specialist PROdry®. Combining PROdry's precision thermal imaging and application knowledge with BTG's Vigilance® vibration measurement, provides the tissue maker with a very powerful Yankee diagnostic approach to common operational challenges.

These diagnostic technologies, combined with BTG's industry leading high performance creping blades, blade holders and process control instrumentation, provide BTG with the most advanced and comprehensive capability assisting tissue manufacturers in achieving sustainable gains in machine efficiency and productivity.

Swiss-based BTG is committed to helping global tissue clients achieve significant, sustainable gains in business performance. It accomplished this through its world-class people, market-leading technologies, industry expertise and passion for results.

Come visit the company at booth number 740 during Tissue World Americas in Miami!

BUCKMAN

(#550)

Buckman offers tissue industry customers worldwide an unmatched

combination of new technology, technical expertise and exceptional service. Its experienced associates help customers innovate and capitalise on new opportunities. Whether you produce premium bath or towel, away from home or consumer tissue products, Buckman can help you improve the quality of your tissue and the efficiency of your operation.

Buckman is leading innovation throughout the industry, solving problems and providing unparalleled Yankee creping expertise. It provides the most robust line of products available to meet a mill's chemistry needs. It is helping its clients improve their environmental profile by reducing energy use and employing green chemistries.

Stop by Booth 550 to hear about Buckman's innovative products and sustainable practices.

C.G. BRETTING MANUFACTURING CO. INC.

(#900)

Years of experience, research and development, technological



advancement and dedication to industry leading service are built into each piece of Bretting Manufacturing equipment. Its tissue, towel, and napkin converting equipment and line of packaging options are the benchmark of the paper converting industry which provides the flexibility required to satisfy your production and market requirements. Highly skilled service technicians are available to assist customers with installation, integration, training and troubleshooting. Continuous R&D efforts by its expert engineers and technicians are enhancing its product lines to give you the competitive advantage. The company said: "As a world class manufacturer we believe in one thing delivering as promised, earning the right to be the customer's choice."

CANFOR PULP PRODUCTS INC.

(#1300)

Canfor Pulp is one of the largest global manufacturers of northern softwood

kraft pulp. Owned 50.2% by Canfor, the world's second largest lumber producer, Canfor Pulp is well positioned in terms of chip availability, low cost operations, a unique fibre endowment, world leading sustainability practices and a commitment to innovation in tissue captured under its "Think Fibre Forward" strategy. Canfor Pulp uniquely offers direct assistance with fibre optimisation focusing on stock preparation as part of a total fibre value proposition targeting superior strength and softness tissue at the lowest overall cost. With more than 20% of its annual production dedicated to global tissue customers, Canfor Pulp is well positioned and committed to growth in tissue.

CELLWOOD MACHINERY AB (# 995)

Cellwood Machinery will showcase its successful main brand products -



KRIMA: Includes the market leading dispersing system designed to handle contaminants present in today's waste paper.

GRUBBENS: Pulpers, well known for both UTM and bale installations, gives unparalleled reliability and energy savings.

ALGAS: Microfilters for all your water treatment needs.

CHRISTIAN SENNING VERPACKUNGSMASCHINEN GMBH & CO. KG

(#1050)

Fully automatic and ultra-flexible



handkerchief production line from one source: Christian SENNING Verpackungsmaschinen GmbH & Co. KG.

With more than 60 years of experience in the world market, SENNING offers reliable and innovative high-end packaging solutions for tissue and paper products such as handkerchiefs, napkins, facial tissues and paper towels. In 2013, the TCA 450, a complete handkerchief folding and

wrapping line with a speed of up to 450 packages per minute, comes with many technical novelties: it can be equipped with an auto-splicer for tissue rolls which allows splicing "on-the-fly" in connection with a path storage so that no machine stop is required. In addition, splicing of the film with full speed can be carried out "on-the-fly".

Apart from the latest possibilities regarding efficiency and flexibility, SENNING takes special care to maintain the constant high quality level its machinery is renowned for.

CHYAU BAN MACHINERY CO. LTD

(#990)

Chyau Ban Machinery Co. Ltd was founded in 1987 and is one of Taiwan's most



veteran manufacturers of tissue paper converting machinery. Based on more than 26 years of experience in mold, Chyau Ban has become a specialist manufacturer of interfold and rewinder tissue machine through its advanced technology. Chyau Ban is versed in the All-In-One System of converting tissue machine, such as facial tissue paper, V-fold hand towel, Z-fold hand towel, W-fold hand towel, napkin paper, wallet facial tissue paper, wet wipes, toilet rolls, kitchen towel rolls and maxi toilet rolls. Chyau Ban also develops automatic transfer systems to create a more efficient and effective working process. All tissue converting machines can be exported to overseas countries and they perform well in facial tissue factories. Each tissue converting machine has been awarded CE certificate which warrants each machine's performance. Chyau Ban carries out a sales service for each customer.

CLOUTH-SPRENGER LLC

(#495)

Clouth Sprenger
LLC supply the
latest and leading technology in
ceramic creping blades for use in the
manufacture of all tissue grades. The
company said the Clouth Sprenger
Ceradia range of creping blades

provides the ideal cost:performance ratio of any advanced ceramic creping blade and is the most reliable solution for many of the world's leading tissue producers. Ceradia creping blades are ideal for all tissue manufacturing and address traditional concerns around creping blade durability and effective blade lifetime whilst enabling the finished product to achieve outstanding bulk and softness qualities. The Clouth Sprenger team of tissue experts will specify the best Ceradia product for each application and check machine parameters to ensure optimum and safe performance of the creping blade.

NEW: Silence the Chatter!® Ceradia Vibrastop® – reduce creping blade vibration and prevent Yankee damage!

Clouth Sprenger Ceradia creping blades: Raising your Quality; Meeting your Expectations to exceed Your Customer's Expectations®.

CONDEX ENERGY

(#890)

Combustion & Energy Systems Ltd and its wholly



owned subsidiary, ConDex Energy, are specialists in maximising the recovery and reuse of waste energy, reducing energy costs and emissions for its customers. It specialises in the design and fabrication of condensing heat recovery systems, a concept where currently wasted energy and water are recovered and reused. Combustion & Energy Systems distinguishes itself by supplying energy efficiency systems that are specifically designed to maximise the heat recovery and reuse requirements at its customer's facility. It goes beyond being a simple equipment supply company as each system it delivers is custom designed to maximise the energy recovery at your plant. Combustion & Energy personnel will measure and quantify the waste heat sources at your facility, identify heat sinks and design an energy recovery system sized specifically for your requirement - and it guarantees the results.

CONVERMAT CORPORATION (#650)

Convermat is a world leading



supplier of parent rolls of toilet tissue, facial tissue, napkins, towelling, specialty wadding, TAD, DRC, Air laid, wipers and more. Founded in 1976, the company is active in more than 80 countries around the world with major market shares in the US, Canada, Mexico and a number of growing and emerging international markets. Convermat maintains a very close partnership with many of the leading and growing tissue players and converters across all continents. As a result, it is able to provide its customers with the strongest sense of security of supply and price stability.

CORE LINK INC.

(#895)

Core Link is the world's leading



machine supplier of manual through to fully automated systems for handling broke rolls, butt rolls, core recycling, and cores. It partners with Trancel, a machine supplier of systems for handling rolls with conveyors, kickers, and controls and bales either recycled or pulp. Specially proven designed systems for the tissue and towel industry providing better economics and safety. Contact the company and it will change your view on broke, core, roll and bale handling.

CRISTINI PAPER MACHINE CLOTHING AND INSTRUMENTATION (#580)

Cristini is proud to showcase its Diagnostic



Instrumentation line. It will feature its PermflowDuo Felt moisture, porosity and temperature metre offered in the portable version for taking manual measurements. It understands that safety is always at the forefront which is why it also offers two online option for on felt measurements; the EasyScanTM which combines the flexibility of the portable unit without having to cross the plane of the machine and the fully online option PermFlowDUOFIX™. Increase efficiency and reduce energy consumption caused from long press felt breaks over time by controlling press felt moisture and permeability content

immediately to set optimal start up conditions. Profiles can be corrected accurately by knowing exactly where felts are clogged or carrying more water. This revolutionary technology is an invaluable tool for any tissue maker as its gives real time measurements on the critical felt position.

Cristini continues to be one of the world's most innovative clothing producers and it offers endless and pin seam press felts as well as forming fabrics designed for all tissue machines. AquaComb™ is a new compound press fabric especially developed for fast tissue machines. Its TissueFlyer™ forming fabric family is unique in its compact design and high initial drainage capacity.

DECHANGYU PAPER MACHINERY MANUFACTURE CO.LTD (#825)

DECHANGYU was established in 1986 and is located in Nanhai, Foshan, next to Guangzhou in Guangdong, and



is a professional household paper processing equipment and ancillary machinery manufacturer. Products include rewinding machine series, facial tissue machine series, hand towel machine series, handkerchief paper series, slitting machine series, paper tube machine, non-woven series and total seven series. It is a large company with research, design, manufacture and sales departments and also has its own brand, ISO 9001:2008 certification and CE certifications. Company assets include more than two million USD and include an area of 100,000m2, more than 250 staff and 40 national patents in the industry.

It is glad to introduce the DCY60104 fully automatic toilet roll/kitchen towel production line. Characteristics include: fully automatic, max web width 3,600mm, design speed 550m/min. It has powerful production capability and can also be equipped with printing, edge embossing, embossing and lamination units as required.

DUBOIS CHEMICALS

(#3135)

DuBois Chemicals provides tissue manufacturers with innovative soil prevention and cleaning solutions. Its programmes include patented solutions to manage fabric filling from wet strength resins, recycle contaminants, Yankee adhesives, CMC and inorganic scales. Results demonstrated include increased efficiency, better sheet quality, improved moisture management, and longer fabric life. DuBois also provides a complete wet-end deposit control line including technologies to address recycle contaminants, wood pitches, scales and biological deposits.

E.I.L. SRL

(#1370)

E.I.L. SrL has always built its systems using a



production philosophy based on quality and giving a specific "identity" to all its achievements. This "identity" comes from the continuous search of the best parts to build its electrical systems, reflecting the convenience of only one producer of electrical components and it is confident about providing an installation created with the best offers on the market. It builds its systems with extreme care, using the best brand components. Once fully assembled, the panels are extensively tested by its qualified technicians.

EDSON PACKAGING MACHINERY LTD

(#945)

Edson Packaging Machinery Ltd has been in the



packaging automation business for over 50 years providing the tissue industry with robust casepacking solutions with healthy ROI's. Since becoming part of the Pro Mach group in 2011, Edson's automation capabilities have expanded into turnkey solution providers, specialising in the End-of-Line automation. Edson continues to be North America's #1 casepacking supplier to the tissue industry. Stop by Edson's Booth #945 to see the latest in automation and technology for the packaging industry.

ELETTRIC80 INC.

(#745)

Tissue is in the company's DNA.



Elettric80 is an innovative force in the tissue industry thanks in part to its creative collaborations with customers of all sizes. E80 is all about logistics – the organisation and tracking of production flows from raw material receiving to automatic truck trailer loading.

Many innovations such as close-coupled end-of-line palletising including the Dragon robot palletiser teamed with an array of laser guided vehicles for the delivery of raw materials and finished product have proven to be a winning combination resulting in more compact layouts, lower costs and better response to customer's needs through improved flexibility and product quality. This approach is called Freeway®.

Strong entrepreneurial spirit is always at the center of innovation. Today, another frontier is within its reach — the so called "Ultimate Factory" or in Italian, the "Fabbrica Ideale". No longer a vision, it is now a reality; E80 is taking automation efficiency and intelligence to a higher level every day and is thankful to the friends that have helped take this journey to new frontiers.

EMTEC ELECTRONICS GMBH (#1065)

Emtec will present different testing



equipment in which the complete process of tissue production from pulp to the finished product can be controlled and guided in the right direction to get an efficient process and the best possible quality with the lowest possible cost.

In the wet end, it is extremely important to have detailed information about the charges of particles in the pulp suspension (by CAS – Charge Analyzing System) as well as in the surface charge of the pulp fibres (FPA – Fibre Potential Analyser and FPO – Fibre Zeta Potential Analyser Online). At the dry end, it is necessary to get an idea of the quality of the base tissue after the production or the finished product after converting. This can be

realized by the TSA (Tissue Softness Analyser), which gives information about the softness, smoothness/ roughness, stiffness as well as the final hand feeling.

ENERQUIN AIR INC.

(#1140)

A leading worldwide manufacturer of



paper machine ventilation process for the tissue, paper and board industry. The company's expertise in energy optimisation coupled with the dedication of its service team ensures it provides unique solutions to optimise production processes. It provides the highest quality engineering, design, fabrication, installation and technical service. Its product line includes high velocity Yankee Hoods and specially designed multi-stage heat recovery systems.

ENZYMATIC DEINKING TECHNOLOGIES (EDT)

(#3110)

Enzymatic Deinking 🕖 Technologies (EDT) is a bioindustrial



company specialising in enzyme-based treatments for the pulp and paper industry. EDT's Enzynk® technology uses mill-tailored enzyme formulations to better detach and remove ink, stickies and ash in the processing of waste paper. Improved pulp dirt counts, stickies counts and brightness enable mills to reduce costs in furnish mix, other chemistries and improve fibre yield while enhancing runnability on the paper machine and in converting. EDT's Refinase® programme for enzymatic fibre modification is a leader in helping mills improve sheet strength, enhance machine performance, reduce energy use in refining and drying, produce more tonnes and enhance tissue softness. Visit EDT's booth #3110 to learn more about these valuable patented technologies.

FABIO PERINI

(#1200)

Fabio Perini with FABIO PERINI brands Fabio Perini, Casmatic and Concept X is a leading

range from very basic to extremely fast and sophisticated, delivering a broad range of end products. Fabio Perini S.p.A. stands for innovation and advanced technology as well as a high degree of specialisation in designing solutions for converting and packaging tissue products. It offers cuttingedge services and assistance, and a business philosophy that places the customer at the centre. It has a solid and well-established global presence. Fabio Perini is part of Körber Process Solutions GmbH.

provider of machinery and services

for tissue operators. Production lines

FIREFLY

(#780)

Fire prevention systems from Firefly. Firefly is



the world's leading provider of fire prevention systems for the tissue industry. Firefly Tissue Solutions® optimise safety in tissue mills with unique products that are designed to protect tissue machines and converting processes from damage. Firefly provides systems designed to adapt to each process, with detectors that indicate hot particles, sparks and flames, combined with water extinguishing as well as other suppression methods, such as CO2. With Firefly solutions, each tissue mill can be effectively protected against costly fires and dust explosions.

Firefly will showcase the unique features of the WebScan®. The WebScan® is developed to prevent fires in stored tissue rolls. The WebScan® detectors used in the system are especially designed to indicate hot spots, glows, and sparks from 250°C (480°F) on the tissue sheet. The WebScan® fire prevention technology is today a standard in several European-based tissue plants.

FLAMEX INC.

(#1420)

FLAMEX Inc. is a FLAMEX INC. leading supplier

of customised industrial process fire prevention and protection equipment. It specialises in industries that handle combustible materials and residual

dusts. Together with its parent company MINIMAX GmbH & Co, KG in Germany, it introduced the first spark detection and suppression system in the US to gain FM Global Approval. It offers a broad range of detection and suppression components that can be customdesigned to address the specific fire hazards found in tissue manufacturing facilities

FLEXLINK SYSTEMS, INC.

(#1020)

FlexLink Systems, Flex Link® Inc. is the leading supplier of automated production flow solutions for the worldwide assembly and manufacturing industries. Its solutions ensure the highest possible reliability, low noise, minimum spare part requirements and multi-product line capabilities. FlexLink solutions have optimised designs to minimise product damage and be resistant to wear through special components just for the tissue industry. With the use of its Dynamic Flow Concept (DFC) the company has achieved optimal line balancing so product flow is distributed dynamically to make it available in the requested configuration. This improves machine utilisation and decreases overall production costs. For more information please visit the company's website: http://www.flexlink.com/en/ industries/tissue/.

BAOTUO PAPER MACHINERY ENGINEERING CO., LTD.

(#1145)

Baotuo Paper Machinery

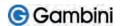


Engineering Co. Ltd is a Sino-Foreign joint venture specialising in the research and development, manufacture and sales of high-speed household paper making equipment. Its leading product, the SF Suction Former Yankee paper machine, is well known for its high efficiency, low power consumption and soft flexible paper.

GAMBINI S.P.A.

(#1160)

Gambini S.p.A. is a leading



manufacturer in tissue converting machinery which provides innovative FUTURA (#1090)

Thanks to its core beliefs and the work ethic instilled by Mr. Fabio Perini, Futura SpA has elevated tissue converting to new operating and quality standards for consumer and professional lines for roll products. The company's success is rooted in the belief that every component of a tissue converting line should be designed with ultimate simplicity, global safety and absolute reliability in order to achieve the best operating equipment efficiencies and lowest total cost of ownership.

Innovation and refinement are continuous processes

at Futura's dedicated research and development facility – Futura Lab – where new concepts are rigorously tested. As a true partner, Futura ensures through its



Procare service division that all its lines are backed up by the most advanced training programmes and responsive maintenance in the industry. Today Futura is represented by a dedicated team of 130 staff at its headquarters and manufacturing site in Lucca, Italy, and sales and service centres in Alpharetta, USA, and Joinville, Brazil. Futura works with passion for value and leadership.

solutions that bring real benefits to customers in terms of value and quality of the finished product. Gambini converting lines, both consumer and professional, meet market demands and feature high safety standards, flexibility and operational excellence. Gambini is the original inventor of the revolutionary TouchMax, the safest and most versatile embosser which can laminate random or synchronised configuration and sue to its five steel embossing rolls, it enables a three minute product changeover without the need to replace any embossing rolls in the machine.

Gambini's additional innovations include: FlexLess technology, which enables customers to always obtain an even NIP; Varideck, the first laminator unit that can vary the width of paper without replacing rolls or sleeves; SmartCut, the fast and accurate coremaker; and a new consumer log saw - the fastest in the market.

GAPCON S.R.L.

(#1038)

GapCon Srl has more than 30



years experience in engineering and manufacturing of equipment for paper mills. The main business is concentrated on the major rebuild of paper machines worldwide. A significant increase in development started in 2011 when the company became a member of GapCon Group, a centre of excellence for manufacturing headboxes, forming parts, press sections, dryer sections and reels. It has created a good synergy with the German mother company GapCon GmbH, which manufactures shoe presses, calenders and winders. The

GapCon Group is now ready to serve paper mills with the complete product portfolio.

By continuously reinforcing its technical staff, GapCon Srl continues to grow as an important player in tissue industry, supplying complete turn key solutions with first installations starting up soon.

It will be delivering a complete tissue machine (EconSOFTTM) with its industry leading Crescent Former and Steel Yankee (EconDRYERTM) as part of a turn-key project in Tunisia. Start-up is predicted for 2014.

GB EMBOSSING INC.

(#1000)

Supplier of engraved embossing rolls, pattern development solutions and custom embossers/converting equipment.

GLOBAL LINK & SUPPLIES

Global Link &

(#3115)

Supplies is an international supplier to the tissue industry headquartered in Miami, Florida. The company specialises in selling to the converting sector and provides a wide range of parent rolls for retail and away-from-home products.

Other commodities supplied include corestock, recovered fibre, pulp, converted products and machinery.

Since its inception the company has provided quality, understanding the needs of its customers and working every day to be more effective in providing each and every one of it services.

Its comprehensive network allows it to find the best solution for its customers by providing solutions to their needs, which has positioned the company as a strategic and reliable partner. Its multimarket approach is reflected in its growth and operations in Asia, Latin America, USA and Europe. Today it has a presence in over 20 countries around the world.

GLOBE MACHINE MANUFACTURING

(#1195)

Established in 1917 in Tacoma, Washington,



USA, Globe Machine Manufacturing is approaching 100 years as an engineering and manufacturing company with expertise in automated production systems across a broad range of industries. With its more recent development effort into the pulp and paper industry in 2001, Globe has achieved a preferred vendor status to most of the major north American tissue and paper producers. Globe has a reputation of engineering and manufacturing robust heavy duty industrial equipment that are the make-up of fully integrated and highly automated systems on the production floor. Examples of these systems for the tissue manufacturing industry include roll handling, stretch film wrapping systems, robotic core handling and labelling, shaft extractors with automatic inflate/deflate functionality, spacer-less systems and vertical reciprocating conveyors (lowerators) and upenders. All of the company's systems are automated with extensive use of PLC, motor, motion

and drive controls, HMI's, diagnostics, UL panels, and production management interfacing.

GOLDENROD CORP.

(#345)

Goldenrod Corp (Beacon Falls CT) and Svecom PE (Italy) combine to create the largest manufacturer of core holding accessories in the world. Its comprehensive product and service offerings are designed to provide tissue mills and tissue converting operations with a quality-driven source that incorporates the latest technology with results that meet customer's bottom-line expectations. Its timehonoured reel spool design is the industry standard and its new tissue core plug technology allows many operations to increase production and profitability. Goldenrod has a complete reel spool service centre for supporting its vast install base. These services include reel spool balancing, straightening, refurbishment and reconditioning. Goldenrod takes pride in finding solutions to special customer requirements.

GUANGDONG LIGHT HOUSEWARE CO., LTD

Guangdong Light

(#770)

Houseware Co. Ltd is a wholly owned subsidiary of Guangdong Light Industrial Products IMP & EXP. Holdings Corp. It is one of the first large state-owned foreign trade enterprise groups in the Guangdong Province having been established in 1977. It has more than 30 years foreign trade history, 11 wholly owned subsidiaries, three holding companies and six divisions. The paper team is one of the sale departments of Guang Light Houseware Co. Ltd. Paper product include hand towels, jumbo roll tissue and toilet tissue.

JIANGXI OK SCIENCE AND TECHNOLOGY CO.,LTD

(#775)

OK Enterprise is established in the modern enterprise system, integrated with science, industry and trade into an

integrated high-tech private joint-stock enterprise. Its predecessor for state-owned enterprise restructuring set up: Jiangxi OK Science and Technology Co.,LTD. Guangzhou OK Machinery Manufacturing Co.,LTD, OK Machanical Institute, Guangzhou Nice Tissue Professional Processing Equipment Manufacturing Co.,LTD, a Chinese pharmaceutical industrial association CAPE member unit, China National Household Paper Industry Association member unit, foreign import and export unit officially approved by China foreign trade committee.

Jiangxi OK Science and Technology Co., LTD and Guangzhou Nice Tissue Professional Processing Equipment Manufacturing Co., LTD belong to OK enterprise which specialises in R&D and manufacturing household paper backend processing packaging equipment. It occupies an area of 56,00 and has more than 500 staff. It has been certified with ISO 9001 and CE certification. OK Enterprise is an integrated high-tech private joint-stock enterprise. Its has established: Jiangxi OK Science and Technology Co., LTD, Guangzhou OK Machinery Manufacturing Co., LTD, OK Mechanical Institute, Guangzhou Nice Tissue Professional Processing Equipment Manufacturing Co., LTD.

H.B. FULLER

(#1400)

For over 125 years, H.B. Fuller has been a leading global adhesives provider focusing on perfecting adhesives. H.B. Fuller delivers comprehensive adhesive technology that supports innovations and improves production processes. Partnering to solve customers' problems is H.B. Fuller's passion. Experience and ingenuity enhances its unwavering commitment to its customers' success. Within tissue and towel, its dedicated team's extensive knowledge helps the company develop and deliver the right solution for customers. Its application resources, equipment offerings and custom designed adhesives allow it to truly be a strategic resource.

HASKELL

(#585)

Haskell's services address its customer's entire facility. For decades,

it has led the industry with facility design-build. It now leverages that expertise with complete systems design and the integration of manufacturing and processing systems. It addresses the facility, as well as the process, packaging and material handling systems inside, providing full engineer, procure and construct (EPC) services that result in a complete, reliable manufacturing solution.

HELSTEN

(#1430)

Helsten is a traditional manufacturer of industrial knives in the Brazilian market. It serves the most diverse segments such as: toilet tissue, paper, cellulose, wood, steel, tires, rubber, cigarettes, corrugated, plastic, textile, etc. Its modern technology and high quality raw materials are specific for each application. The company's inherent heat treatment and the experience of its professional team assure the quality, high productivity and excellent performance of Helsten products, making its knives ideal for your industrial cutting. Products are available for several applications including: log saw blade, grinding wheels, rewinders, perforation, core winders, wrappers, napkins and others.

HENKEL CORPORATION

(#1380)

Henkel's experienced team of solution providers is dedicated to the tissue and towe



to the tissue and towel market, which enables customers to achieve the lowest adhesive cost-in-use. Henkel is known globally for rapidly and effectively delivering reliable, efficient and sustainable solutions for transfer, core winding, tail seal, laminating and case sealing. As the worldwide leader of adhesives solutions for tissue and towel manufacturers, Henkel adhesives enhance product quality and ensures reliable consistency.

HERGEN

(#200)

Hergen is a traditional
Brazilian company with
39 years of experience in
the manufacture of paper
machinery for the tissue, board and

special papers market. It manufactures or updates complete machines, parts or equipments such as headboxes, ribbed and plain Steel Yankee Dryers, reels, rewinders and others. The company has two sites located in the same city and has clients in countries such as Argentina, Chile, Ecuador, Uruguay, Paraguay, Peru, Poland, Russia, Pakistan and others.

HINNLI CO. LTD

(#510)

Hinnli Co. Ltd. is located in Taiwan and has become the



leading manufacturer exporter, turnkey protect provider and system integrator focusing in paper converting, industrial machineries. In addition to single-unit machines and relevant components and parts, the company also specialises in the supply of whole-plant projects to customers. It provides extensive experiences and knowledge by supplying the highest quality machinery. The company has achieved an outstanding position in the market by understanding the importance of achieving consumer satisfaction. Hinnli Co. Ltd. strives to provide convenient conditions and opportunities for the success of its clients with the best machinery.

ICM (#1450)

ICM is a tissue converting,

Converting Machinery machine building company with its own design and manufacturing team. The company builds machinery to customer specifications and provides maintenance and after-sales support from highly skilled technicians. ICM has the ability to plan and implement manufacturing strategies for its customers and provide maintenance for and improvements on any tissue converting machine, as well as manufacture spare parts. ICM responds quickly to all requests. At Tissue World Americas 2014 in Miami, ICM is introducing its new Z-Fold line, napkin production line and toilet paper

INDUSTRIA CARTARIA PIERETTI SPA (#540)

production lines to the market.



Tissue

The company is a leader in manufacturing recycled

core board for tissue cores, spiral and line tubes, edge-protectors and corrugating paper. The frontier of its R&D is its grey/white-grey and white-white one-ply board for tissue cores and its grey high-qualities Fibra25T and Fibra30T to meet tube makers sophisticated demands. The company produces 150,000 tonnes per year and exports to 75 countries. It has an office in Shanghai and in 2014 it will be opening an icP America branch.

INFINITY MACHINE & ENGINEERING

(#1250)

Infinity Machine & Engineering is a tissue industry specialist and



premier supplier of tissue packaging equipment. With offices in Bologna, Italy and Green Bay USA, it employs some of the best packaging engineers in the world and this is reflected in the quality of its machinery, service and system design. Its product line consists of poly wrappers, single roll wrappers, bundlers, casepackers, conveying systems and diverters.. everything between the discharge of a rewinder or folder to the palletiser. Whether it's a complete new converting plant or a single piece of machinery, Infinity has the equipment, engineering and service to ensure long term efficiency.

INTERNATIONAL KNIFE & SAW (#400)

International Knife and Saw Inc. is an Americanowned manufacturing company recognised for its rich heritage in



producing superior cutting tools and related products for the sanitary papers industry. Located in Florence, South Carolina, the company's core products include log saw blades, blade carriers, perforator blades, cut-off knives, CBN grinding wheels and blade lubrication systems including custom designed lubricants. Technology driven, IKS has developed a leading edge log saw blade grinding system that is guaranteed to reduce blade usage, increase thruput and improve cut quality. Offering extensive technical training for operators IKS assists their customers in optimising the performance of the log saw.

Inventory is stocked at various locations throughout the world, delivering the product quickly and efficiently to converters in need of world class consumables.

IPS TESTING

(#1310)

IPS serves clients as an independent



testing lab for the pulp and paper, tissue, towel, corrugated, nonwovens, personal care products, medical supply, food and packaging industries. Key skills include: analytical chemistry, physical testing, fibre science and microscopy, defect analysis, quality control, reverse engineering, national brand equivalency, regulatory, biodegradability, recyclability and repulpability and sustainability testing.

ISRA VISION PARSYTEC

(#795)

ISRA VISION, the global leader in surface inspection,



offers systems to improve tissue production and converting efficiency. 100% inspection on the tissue machine coupled with web break monitoring ensure that breaks are reduced increasing uptime. Tracking defects through converting reduces breaks at converting. ISRA's new PAPER MASTER inspection systems provide tissue producers a unique and proven solution to improve production and reduce downtime. Defects are classified and relevant defects are highlighted. On the tissue machine, root causes of defects are easily determined preventing web breaks. Intelligent Web Break Monitoring (WBM) allows immediate determination of sheet break causes. Coupling web inspection with web break monitoring allows the source and cause of defects to be easily identified. ISRA offers an extended product portfolio for tissue producers covering a full range of surface inspection tasks along the process chain – from the tissue machine to converting.

JBT CORPORATION

(#1185)

JBT Corporation is a leading global supplier of automatic



guided vehicles (AGV) systems with over 150 vehicles operating daily in tissue mills providing safe, cost effective movement of materials. The benefits of using AGVs instead of manual fork trucks include the following: reduce labour costs, elimination of product damage, improved product tracking, increased facility throughput, increased employee productivity, reduced waste and improved plant safety.

JBT's AGVs provide automated movement of parent rolls, raw materials, supplies, finished goods, packaging materials, empty pallets, trash, broke, cores and other supplies. The vehicles operate unmanned with precisely controlled movement of all actuators to maximise safety and eliminate product damage. JBT will analyse the flow of materials in your facility and develop an efficient solution to achieve your goals. The system is fully integrated into the production or warehouse management systems to provide seamless product flow without operator intervention.

JEDSON ENGINEERING

(#620)

Established in 1984, **Jedson** Jedson is a full service engineering, procurement and construction management company specialising in the design of highly efficient tissue towel manufacturing facilities, re-builds and process and utility improvement projects. Jedson's staff of tissue specialists have completed numerous new tissue machine installations, pulp processing areas and converting projects with a focus on driving low capital, energy efficiency and low water usage. Jedson is headquartered in Cincinnati, OH, with additional offices in Savannah, GA, Mobile, AL, Jacksonville, FL, and Saudi Arabia.

Stop by their booth No. 620 to find out how the company can deliver success to your capital projects or improve your profitability.

J. RETTENMAIER

(#3650)

J. Rettenmaier USA LP is a multinational



manufacturer of plant based fibre additives for papermaking and coating. It offers: a selection of innovative, sustainable Arbocel® and ArbocelPlus® materials that target volume increase and process acceleration with better dewatering, improved retention of high cost chemicals with fibre bound additives and coating cost reduction with ultrafine cellulose.

KADANT

(#3002)

KADANT is a KADANT leading supplier of equipment and systems to the global tissue industry. Its fibre processing, steam handling and distribution, doctoring, cleaning and filtration products are designed to increase efficiency and improve quality in tissue production. New innovations to be highlighted at Tissue World 2014 include the RotoFlex™ resource recovery system, VeriLite™ and VeriKleen™ roll cleaners, FibreWall™ screen cylinders, PURE self-aligning refiner, and its high yield MAK-C flotation cell. For more information, visit www.kadant.com.

KAPP-CHEMIE GMBH & CO. KG

(#1190)

KAPP-CHEMIE GmbH & Co. KG is part of the Stockmeier group. Founded in 1970, KAPP-CHEMIE is developing, producing and distributing special products for the paper and textile industry. Some 100 dedicated employees ensure a high quality, stateof-the-art product range, excellent cost performance and strive for complete customer satisfaction. Superior flexographic printing inks, versatile converting glues and customised specialty chemicals for the tissue industry form the core business of the paper division. The wide acceptance of these products is the background of KAPP-CHEMIE's global market success.

KBR

(#340)

KBR provides EPC/ CM services to build new facilities and to improve the efficiency and capacity of mills around the world. It is committed to the pulp and paper industry's enduring success as a competitive force in the global economy. With half a century of service to the pulp and paper industry, KBR is dedicated to delivering projects that meet its clients' business objectives while providing the highest attainable level of safety, quality, productivity, and cost-effective execution. KBR's understanding of tissue manufacturing technology enables it to develop efficient, targeted solutions for its client's strategic business objectives.

KEMIRA

(#640)

Kemira is a global chemicals company



serving customers in water-intensive industries. It provides expertise and tailored combinations of chemicals that improve its customers' water, energy and raw material efficiency. In 2012, Kemira had annual revenue of EUR 2.2 billion. Continuous dedication to the pulp and paper industry and its close cooperation with customers is the foundation for its solid industry knowledge. With expertise ranging from fibre processing, water treatment, tissue, paper and board production, it is in a unique position to help.

Kemira understands that each production line and paper grade has unique requirements and challenges. Its R&D, sales and application groups are recognised industry experts and are ready to work with you on any challenge you have.

Kemira will present a technical paper "Utilising novel temporary wet strength for the away from home (AFH) towel market" presented by Clayton J. Campbell. Visit Kemira at booth # 640.

KISS-U CORPS LLC

(#390)

Would you be interested in a facial tissue product that



could provide up to 60% margin? Kiss-u Corps LLC produces the world's first refillable tissue and wet wipe dispensers, the Kiss-u Tissue Tube® AND Kiss-u Wet WipesTM. These innovative and environmentallyfriendly consumer products are designed to be functional, fun and cost effective, while providing an important measure of safety for drivers that no other tissue product satisfies. In addition, these dispensers keep customers coming back for refills, giving you a substantial 60% margin on the Kissues Refill Packets®. Impressed? Stop by Booth #390 for more information

LANGEN PACKAGING GROUP (#1070)

For over 55 years Langen Packaging



Group has supplied reliable and robust packaging machinery for cartoning, case packing and palletising. Its customers include most of the household names in the tissue, consumer products, food and personal care sectors.

With facial tissue cartoners installed globally, Langen has the experience and proven success to meet your requirements. Langen offers a wide variety of cartoners ranging from low speed manual to high speed automatic cartoners capable of up to 400 cartons per minute. Its cartoners can run both "regular" and "boutique" cartons on the same machine and are capable of changeovers of less than 10 minutes. It also provides fully automatic infeed transfers and merging systems to meet your needs. High performance Langen machinery is designed to reduce the overall cost of ownership by improving line efficiency, reliability and availability. Contact Langen or its sales partner TISSUENET GmbH to see how it can help you.

LILLY+ASSOCIATES INT'L

(#3133)

Founded in 1996, LILLY + Associates International is a multinational shipping and logis



a multinational shipping and logistics services company specialising in ocean shipping. The company is headquartered in Miami, Florida, and operate wholly-owned offices in Colombia, Venezuela, Panama, China and Guatemala. With employees and agents around the world, LILLY offers competitive import and export

rates with effective door-to-door transportation and logistics solutions.

LUMINITE PRODUCTS CORPORATION (#1180) LUMINITE

Luminite Products Corporation, is the original 1926 pioneer in the flexographic printing industry, providing solutions for ITR (In-The-Round) technology since 1976. It is the manufacturer of precision ground laser engraved and non engraved flexographic print sleeves, plates and cylinders. Its patented product, Load-N-Lok, is an "air sleeve" that does not require an air mandrel. It allows the press operator improved efficiency by reducing start-up waste, improved press times and multiple print repositionings. Load-N-Lok sleeves are suitable for all substrates and ideal for seamless printing. The company invites you to Stand 1180 where its representatives will offer complete product line information. Visit its website at www.luminite.com for additional company information and a demonstration video of Load-N-Lok.

LYISH ENGINEERING LTD. (#

(#1138)

Manufacturers of converting machinery for the tissue industry, log cutters, rewinders, laminated toilet roll lines, napkin machines and others.

MAFLEX SRL

(#1000)

MAFLEX is a tissue converting specialist. It has



been operating in the tissue converting machinery field since 1997. Its years of experience have led to the manufacture of complete tissue converting lines that are primarily for entry level to mid-sized companies in the market. The philosophy pursued by the Maflex management is to build modern and reliable machinery. In September 2012, it opened the North American headquarters in Green Bay, WI, to assist U.S. and Canadian converters with purchasing machinery, spare parts and customer service assistance.

MAN DIESEL & TURBO NORTH AMERICA INC.

(#1315)

MAN has a long history serving the world's paper industry, dating back to



1945 when its first Sulzer TURBAIR vacuum blower was developed. Today that tradition continues with the broadest and most energy efficient vacuum systems available. Its tough and dependable multi-stage RC series ranges in size from 6,300 to 106,000 CFM, achieving vacuum pressures down to 23" HgV. Its new and incredibly efficient RT series, ranging in size from 7,000 to 78,000 CFM, is ideally suited for felt conditioning applications. Every year, more and more paper and tissue machines are being constructed with or converted to TURBAIR vacuum systems. Come see why today!

MEGALL INDUSTRIES (QINGDAO) LIMITED

(#3245)

The company supplies a range of tissue paper products and wiping products from China. These include: parent rolls, facial, toilet, napkin and towel grades, non-woven and airlaid parent rolls, finished products, bath tissue, JRT, interleaved toilet tissue, box facial, dinner napkins, luncheon napkins, beverage napkins, multi-fold hand towels, single-fold hand towels, C-fold hand towels, hardwound roll towels, centerpull roll towels, blue wiping rolls, TAD towels, airlaid napkins, non-woven wipers, DRC wipers, wet wipes, etc.

METTLER TOLEDO

(#680)

METTLER TOLEDO provides in-line

METTLER TOLEDO

product inspection solutions for the paper and tissue industry with Hi-Speed checkweighers, Safeline metal detectors and x-ray inspection systems and CI-Vision machine vision systems.

Metal Detection: Mettler-Toledo Safeline will conduct demonstrations of tissue products on a Signature Touch metal detector. Safeline metal detectors prevent costly recalls by ensuring your products are free of ferrous, non-ferrous and stainless steel contaminants which can be introduced during processing. X-ray Inspection: METTLER TOLEDO Safeline x-ray inspection systems can detect ferrous, non-ferrous, stainless steel, glass and stone contaminants, detect mass and check for missing or damaged product inside closed packages.

Checkweighing: METTLER TOLEDO Hi-Speed will demonstrate a CS3600XE caseweigher, which weighs large packages in motion to ensure 100% quality control, minimise costly giveaway and give you total peace of mind. All major components are easily accessed for simple inspection, cleaning and maintenance. The belt design makes tracking, tensioning and change out fast and simple.

MOISTTECH CORP.

(#675)

MoistTech manufactures Moist Tech.com a range of on-line sensors and at-line instruments for moisture measurement and real-time moisture process control. The IR3000 is considered by many as being the flagship of MoistTech's IR Series of sensors. It has resulted in unmatched performance for tissue moisture measurement and control within all levels of the tissue industry. MoistTech's independent instruments accurately measure moisture to within 0.05%. For better moisture control visit MoistTech.com and discover the IR3000 on-line sensor and the Lab 868 at-line/ laboratory.

Experience in the tissue process has allowed MoistTech to develop the most accurate on-line, non-contact moisture analyser for use in processing and many other applications. These sensors are unaffected by product height, flow, ambient light, and temperature and are renowned for their rugged design and ability to withstand the harsh environments of the tissue process.

M.TORRES DISEÑOS INDUSTRIALES, S.A.U.

(#1280)

Industrial group
MTorres is based in
Pamplona, Spain, and also has offices
in Seattle (WA), Germany and Shanghai.
The group has long been known in
the converting industry for its highly
reliable and durable products.

In operation since 1976, with more than 700 customers and thousands of machines worldwide, MTorres specialises in splicers, roll stands and paper roll transport systems for all industry sectors that involve web handling such as tissue, corrugated, flexible packaging, liquid packaging, etc.

Making good use of the know-how accumulated in the paper industry, MTorres has also developed a complete range of automatic splice unwinds for the tissue industry.

The MTorres Auto Splice Unwinds is an important technology advancement and provides tissue converters with the latest innovations to eliminate downtimes during the reel changes and/or marked sheet breaks, resulting in an increase in productivity and waste reduction in converting lines.

MULTIPACK SRL

(#445)

"Tomorrow's technology ultipack today. The future is achieving what others find impossible." MULTIPACK supplies original and cutting edge, modular and flexible solutions, confirming its name in the market as an allround and trustworthy partner for absolutely any packaging solution. MULTIPACK has been manufacturing automatic packaging machines for over 30 years and has thousands of installations worldwide. The proven NK series wrappers is a high quality, simple and reliable wrapper for single up to quadruple pack wrapping. The NEW TEKNA wrapping machine sets new standards for productivity and efficiency "The fastest one", with a top speed of 120 packs per minute and a size changeover can be completed in as little as five minutes. T-ZERO automatic reel splicer unit, FLEXA series of

NALCO, AN ECOLAB COMPANY (#1150)

automatic case packers and EASY series

of stretch banders. "What more can we

say. Welcome to the future MULTIPACK,

one step ahead."

Nalco, an Ecolab company, is the world's largest sustainability services company

focused on industrial water and pulp and paper applications. With an 80-year track record, Nalco delivers significant environmental, social and economic performance benefits to its customers. It helps its customers reduce energy, water, fibre and other natural resource consumption, minimising environmental releases while increasing their production. Its solutions provide improved environmental performance (eROI) and reduced operating costs. Its expertise in the tissue industry helps its customers improve sheet quality, reduce fibre, energy, and cost and increase machine production. Its focus on innovation consistently brings new technology to the pulp, paper and tissue industry, securing dozens of new patents each year. Through its sales, service, research and marketing team of more than 7,000 technically trained professionals, it serves nearly 50,000 customer locations in over 150 countries.

For more information visit www.Nalco. com/industries/tissue-towel.htm

O.M.C. COLLAREDA

(#1290)

Providing technologies and plants for water



treatment and stock preparation, O.M.C Collareda is an international leading company involved in the design, manufacture, assemble and commission of equipment for municipal and industrial water treatment plants as well as for stock preparation for the paper industry.

Its main production regarding water treatment plants concerns dissolved air floatation units, continuous self cleaning sand filters, drum filters, fractioning filters, disc thickener/filters and micro filtration units.

The company designs and realises biological plants according to different technologies (totax oxidation activated sludge plants, moving bed biofilm reactor). The primary water treatment division is designing and realising filtration, ultrafiltration and reverse osmosis systems.

This division also includes equipment and plants for multi media filtration,

iron removal, carbon filtration, ion exchange, electro deionization, microfiltration and nanofiltration, seawater desalination, UV sterilisation, ozonation and containerised systems. The new division of stock preparation equipment can supply machines with pulper, screen, cleaner, fractionators, floatation cell, washer, pressurised hot dispersion system, broke pulper, refiner, deflacker and agitators which are now parts of its production range.

Engineering, pilot unit trials, laboratory analysis, turn key plants can also be provided.

OMET SRL

(#840)

OMET is a leading manufacturer of a complete range of paper converting machines



for the high production of neutral and printed napkins in paper, tissue and nonwoven materials and paper towels of high quality, in line from roll to finished product. The TV503 Line includes a range of modular folding machines for napkins, dispenser napkins, place mats and special disposable products, while the TV840 Line includes the most operator friendly machines for high productions allowing a production speed up to 1.000 meters per minute, while AS is the unique machine for paper towels production. The latest innovation by OMET is the new FV Line for high production of vacuum fold napkins of all kind of ply: format and ply change is completely automatic from the operator panel. Besides the tissue machinery business, OMET is a world leader in the manufacture of narrowweb flexographic printing presses for labels, folding carton and flexible packaging.

OPTIMA NONWOVENS

(#575)

Optima Nonwovens is a well-known leader in the packaging of paper hygiene products. This division stands for innovation in the sectors of home, infant, personal care, and end-of-line automation. Parameters for the outstanding efficiency of the machines from Optima's Nonwovens

Division include an impressive output and excellent performance. Additional benefits consist of machine flexibility and long-term operational reliability. Optima Nonwovens offers packaging lines and machines from start-up machines to market leading high-speed systems. Optima's portfolio further includes stackers and special machinery such as packaging of wet wipes.

PALMETTO ADHESIVES

(#3000)

Palmetto Adhesives Company understands



industries are constantly evolving. Its team of technicians and sales representatives work hard to stay at the forefront of the adhesives industry with products that are innovative, environmentally-safe, and performance driven. TissueTac is its line of waterbased adhesives designed for the four distinct applications in the towel and tissue industry: core winding, laminating, transfer (core start) and tail tie processes. These adhesives may be formulated as solutions or powders and are activated as the water evaporates or is absorbed by the substrates. For more information on the TissueTac line of water-based adhesives, contact Palmetto Adhesives Company today: 1.800.572.5403 or visit its website at www.palmettoadhesives.com.

PAPER CONVERTING MACHINE COMPANY (PCMC)

(#700)

PCMC specialises in the design and manufacture



of high-performance converting machinery for the global tissue, nonwovens, package printing and envelope manufacturing industries. Its tissue product offering includes start-stop and continuous rewinder lines for converting bathroom tissue, kitchen towel, and away-from-home rolls; wrappers and bundlers for tissue and towel; and folding lines for facial tissue, napkins, and wipes. PCMC offers new machines, engraved rolls (Northern Engraving), modifications and upgrades, rebuilds and pre-owned machines, parts, service, and training.

PROFLOW

(#380)

ProFlow Inc of North Haven Ct,



and Shanghai P.R. of China, is the global leader in the design and manufacture of specialty chemical systems for the tissue industry throughout the world. ProFlow Chemical Systems have become industry standards because the company insists on building in quality at every step of the process. Each system is designed and built under well-defined, well-documented ISO 9001 procedures that ensure top performance and quality.

All design work, fabrication, and testing is performed in-house. Each ProFlow system comes complete with detailed drawings, PLC programme documentation, parts list, and field-proven operating instructions - valuable tools in the installation, start-up, operation and maintenance of your unit.

ProFlow Field Service Technicians can assist at equipment start-ups and field repairs. Its project engineers are available 24 hours a day, seven days a week to help you troubleshoot and resolve any technical issues.

Remember ProFlow... When the System Must Be Right.

PRUFTECHNIK SERVICE, INC (#1045)

PRUFTECHNIK Service, Inc. offers precision roller



alignment service using the PARALIGN System. The advantages of this system over optical and laser alignment includes the ability to measure complete machines up to 10 time faster, without the need for a line-of-sight to the rolls or reference points. Complete machines are measured in hours as opposed to days or weeks with other alignment methods. Instant alignment reports allow rolls to be adjusted on the spot, while other areas of the machine are being serviced.

All sheet metal process equipment including rolling mills, annealing lines, coaters, plating and hot galvanising lines are efficiently measured.

Pruftechnik is now offering additional alignment and vibration monitoring services for shafts, couplings, and

drive motors, as well as geometrical flatness, straightness, and levelness for structures and turbines in order to provide a complete maintenance package. Brands: PARALIGN®, ROTALIGN®, OPTALIGN®, LEVALIGN®, **INCLINEO®**

PULSAR

(#3004)

/3 ⊙Pulsar. Pulsar is specialised in the engineering, manufacture and installation of systems complete of conveyors, automatic groups, tailor-made special units, and line supervision through PLC and industrial PC for the transport of toilet paper rolls, kitchen rolls, packages and bundles. In the last few years Pulsar has delivered systems to leading tissue converters and this bear witness to the quality and reliability of the innovations introduced by the patented REDS Divider (Roll Exchange Divider System - 1998) with its main advantages (reduction in roll overturning, higher roll quality, less floor space required by the line) first and later by the harmonising software REDS System (1999) which allows the synchronisation of the processing machines with the conveying system.

QUANZHOU CHUANGDA MACHINERY MANUFACTURE CO., LTD. (#1460)

ChuangDa is a professional manufacturer of



full-auto wet tissue making machines, wet tissue packing machines, wet cleansing tissue making machines and medical treatment wet tissue making machines, etc.

Over the past 10 years, its professional staff have offered a high level of design and research solutions, long-term cooperation and communication with professional organisations at home and abroad. The company focuses on the product's function, stability and automation and as a result has achieved favour from customers all around the world for its high quality products and competitive price.

ChuangDa Machinery wishes to cooperate with you and make progress together!

R. A. JONES & COMPANY

(#1020)

R. A. Jones & R.A JONES Company is a global supplier of packaging equipment and integration services for the facial tissue and non woven markets. Products include cartoning, tub loading, carton magazine loading, case packing and Robotic automation solutions. Stop latest packaging machinery innovations machine at up to 400 CPM.

by the Jones booth to learn about the including the Criterion® 3 cartoner, capable of running flat and cube cartons interchangeably on the same

ROLCO EUROPE B.V.

(#470)

Rolco Europe B.V. is a Dutch fullservice company specialised in the development, manufacture and installation of hygienic tissue converting equipment. Rolco Europe B.V. also delivers spareparts for all tissue converting machines.

The company's goal is to be a partner in the development, supply and installation of technical applications in the hygienic paper industry.

A number of machines have been developed in the last decennia such as accumulators, tail sealers, core makers and unwind stands for rewinders, etc. Projects in the tissue converting industry are a specialty for Rolco and include new electrical application for rewinder lines as well as a variable perforation or a complete re-design for new product launches. The company has a high skilled technical team and can be very flexible when you need a special application in tissue converting.

RONCO MACHINE & RIGGING, INC.

(#1120)

Ronco Machine, Inc. (Ronco) is a full service manufacturer of ancillary converting



equipment. The company was formed in 2013 to expand the development, production and service of "Ronco" branded machinery throughout the US and abroad. Ronco branded products have been in production for over 30

vears and are recognised worldwide for reliable performance and durability.

From custom designs to complete machinery line rebuilds, the company's experienced staff stands ready to provide customers with practical solutions and friendly technical advice. In addition to building new equipment such as core winders and single roll wrappers, it refurbishes and broker used equipment, procure parts, and continually developes new products to meet the ever changing needs of its customers.

S&S CHEMICALS

(#920)

S&S Chemicals is a small company that

CHEMICALS has long experience in the pulp and paper industry worldwide, chemical products and aids and latest technologies. The company connects chemistry and engineering with the principles of sustainability to develop energy-saving equipment. It combines the power of science and technology to passionately innovate what is essential to the progress of saving energy in the paper industry. S&S Chemicals will show the following products:

- Air Solver energy saving systems for clarification of water for dissolved air flotation.
- Biopearl microcapsules lotions, balms and odourless for towels, tissues and feminine hygiene.

SAUERESSIG GMBH & CO (#820)

Saueressig is a proven SAUERESSIG and reliable partner for the tissue industry. With deep knowledge of the market demands that the tissue industry needs to live up to each day, the company creates increasingly ingenious designs. Such designs require the most sophisticated production engineering.

As a member of the international Matthews Brand Solutions Group, Saueressig is part of a strong international network and a partner for leading companies, beyond all borders. With its own engineering division, Saueressig can provide state-of-the art machinery and tools.

At Tissue World Americas 2014, Saueressig will present the Sleeve Change Calender, specially designed for the needs of the tissue industry as well as its new pilot line for preproduction testing. The company offers innovative products, first-class service and cost-efficient solutions.

SERV-O-TEC (#885)

Serv-o-tec specialises serv---tec in the manufacture of small and medium folding machines for high quality napkins and speciality products. It is located in Langenfeld, close to Düsseldorf, Germany. Founded in 1988, Serv-o-tec has solidified its reputation as a proven leader in bringing technology and engineering together to provide innovative solutions to its customers. The company gained worldwide recognition in 1991 as the first company to build a nine colour flexo-printing machine in combination with a napkin folder. Serv-o-tec machines are designed and built to produce high quality decorative napkins, logo printed napkins, all folding styles including bookfold place mats and many more products.

SHANDONG XINHE PAPER-MAKING **ENGINEERING CO., LTD** (#480)

Shandong Xinhe Co. Ltd is a professional integrated company that includes paper machine manufacturing, engineering installation, commissioning, high-precise processing, etc.

SHANGHAI TOMINAGA PACKING MACHINERY CO.,LTD (#570)

Shanghai Tominaga was established in early 2004 and is the first technology-based



manufacturer of auto and semi-auto packaging machinery for the hygiene disposable tissue products in China. It is specialised in packaging solutions for toilet/kitchen roll tissue, facial tissue, sanitary napkin/panty liner, baby/ adult diaper, pants and household tissue. With a senior-engineer team of

decades' experience in the industry, it has the capacity to offer professional packaging solutions, customised packing line and timely and considerate service. Upholding the principles of casting precision and pursuing quality, it keeps developing and innovating to march forward with you hand in hand.

SHANTOU IMAKO AUTOMATIC EOUIPMENT CO. LTD (#960)

Imako are professional packing MAKO machine designers



and manufactures. Its fully automatic tissue packing machine is suitable for solo wrapper and bundler/prebag machines used for toilet rolls, kitchen towel rolls, facial tissue, napkin tissue. pocket paper and other household paper.

It is a professional company with a solid focus on the global household paper industry. Its work attitude is about precision, attention to detail and having a responsible work ethic. It is your reliable and trustworthy partner.

SPRAYING SYSTEMS CO.

(#965)

Learn about unique cleaning, coating and



moisturising solutions during Tissue World 2014 at stand 965. Spraying Systems Co., the world leader in spray technology, will have a wide range of innovative products on display. Visitors can view a self-cleaning header system that automatically adjusts the application rate of viscous coatings based on line speed, cleans nozzles and keeps the inside of the header in place to minimise downtime. Fully automated systems for applying starches, scents and moisture uniformly with minimal waste and automatic brush showers that eliminate nozzle clogging problems once and for all will also be on display. In addition, you'll see the industry's largest selection of shower nozzles, cleaning equipment for stock chests and tanks and air nozzles and systems for drying and blow-off. A team of spray experts will be available to discuss your applications, so stop by for a complimentary consultation.

STAX TECHNOLOGIES

(#300)

Stax Technologies is an international company focused on the continuous development of its technological



innovations dedicated predominantly to the world of tissue paper packaging and to other related professional services. Stax Technologies partners with its customers, understanding their needs and providing innovative technological solutions to overcome potential challenges. Swiftness in adapting to the quickly changing market trends and supplying newly developed answers is what differentiates Stax Technologies from any other manufacturer. It is investing in new technologies to brighten your future, today!

SUZANO

(#3001)

Suzano is a Brazilian forestry-based company that has been operating in the market for almost



90 years. It has an outstanding history due to its continuous search for sustainable development. It is the second largest producer of eucalyptus pulp and one of the ten largest producers of market pulp in the world. It follows the principles of internationally respected certifications, which ensure best management practices for social, environmental, quality, health and safety matters. Currently, Suzano's pulp cellulose has recognised and acclaimed certifications such as ISO 9001, ISO 14001, OHSAS 18001, in addition to FSC® - Forest Stewardship Council® certification and Carbon Reduction Label seals.

In addition to its headquarters in Brazil it has sales offices in Asia, North America and Europe. This benefits its relationship with customers and means it can share solutions and find the best paths together, strengthening its partnership and relations.

SVECOM - P.E. SRL

(#345)

SVECOM-P.E. design and manufacture expanding shafts and chucks for all



winding and unwinding applications including reel spools, shaft pullers, lifting tables and wrapping machines. Svecom produce all size shafts with multiple external bladders, lugs, leaves, featuring high speed centering ledges, differential shafts, core plugs, mechanical, pneumechanical core chucks, safety chucks. Svecom can offer the widest variety of shafts and chucks in the world.

TECHNIDYNE

(#1065)

Technidyne, North
America's leading
manufacturer
of process and
laboratory analysis equipment,
is highlighting the new PROFILE/
Plus Tissue Caliper, FPMonitAirTM
(measuring entrained air) and
FPAutoSpeckTM (measuring macro
stickies) at Tissue World 2014. Stop by
at the Technidyne booth and you will
also have access to information on the
latest in online colour measurement
and other exciting and innovative

TECNOFERRARITECNOFERRARI

technologies.

(#3550)

TECNO FERRARI automatic vehicles are battery-powered shuttles that move automatically by a laser-guided or a magnet-guided automatic system, adapting to every plant's need and to any kind of product. The structure of both systems in the vehicle is the same, creating advantages for maintenance and spare parts. The concept of the TGV automatic guide is its suitability to manage any type of freight in several industrial situations. The vehicles can be adapted for various recharging systems: automatic recharge, manual battery change or automatic battery change.

The vehicles have sophisticated and reliable active and passive safety systems for the continuous control of the surrounding space to prevent accidental blows; safety devices are virtual programmable laser bumper, mechanic bumper, side straps, sound and flashing signals. The company's supervision software provides a complete product management

and interfaceability with the other machines of the production system.

Tecnoferrari produces an average of 150 AGV-LGV vehicles per year, a total that exceeds 2,000 units worldwide.

TISSUE MACHINERY COMPANY SPA

(#500)

Tissue Machinery Company was set up in Bologna



in 1997 in the heart of the Italian packaging valley. In the area around the Emilia Romagna Regional Capital there are thousands of companies making automatic packaging machines: approximately 80% of production is exported throughout the world. TMC is an integral part of this context and has been able to pick out some of its features and advantages to focus on the design and manufacture of systems for packaging tissue and non woven products. Since 1997, TMC has been making automatic packaging machines that stand out for innovation, flexibility and efficiency: together these three elements constitute packaging systems with excellent performances and high productivity level. The company's commitment to research is constant: TMC works with universities to study more advanced packaging solutions for the realisation of systems and their components. TMC selects excellent suppliers that are able to ensure the highest quality standards. The company works together with its customers in the process of analysing and designing packaging solutions, supplying both individual machines and turnkey integrated solutions.

TISSUE SERVICE CONVERTING (#3115)

Tissue Service
Converting offers

a variety of services in technology and project design for the tissue product converting industry. It is a representative for some of the most important Italian companies in the fields of converting, wrapping and palletising: Fabio Perini, Casmatic, W&D, Pulsar, Preferred Packaging, MecWrap, Tecnoimpianti and Dico Solving.

Its experience of over 20 years in the

field of converting is its strong point in the development of projects in design and project management for some of the most important converters in the world.

Tissue Service is dedicated to collaborating with customers with the aim of obtaining the utmost performance. Thanks to its experience in both process and engineering, it is able to provide the best solution for energy savings and reduction in production costs, with the aim of optimising machine performance in full respect of the environment.

TOSCOTEC SPA

(#3200)

Toscotec is a globally leading

globally leading fully integrated supplier of plants, equipment and services for the tissue and paper industry. The company's main aim is to guarantee customers the best results in terms of performance, innovation, quality and return-oninvestment, together with longterm partnerships and intense R&D activities. By designing and developing project based on the customer's real needs and local conditions, Toscotec is a strategic player for turnkey supplies worldwide. Today with the asset of Toscotec Tech, the group can offer advanced technological systems for complete lines, top technology tissue and paper machines with gross daily production from 50 to 260tpd, slitter-rewinders, stock preparation plants, hoods, dust extraction and energy recovery systems. The portfolio is completed by a reliable, all-around skilled service team for training, technical assistance, consulting and engineering for optimising the process, rebuilding and upgrading of existing plants.

TOTALVISION™ - PAPERTECH (#3230)

TotalVision™ provides an



effective means of solving various papermaking runnability and product quality issues. Papertech, based in Vancouver, Canada, is a pioneer in machine vision technology offering custom solutions to the paper and tissue making industries since 1996.

With hundreds of systems installed worldwide, its TotalVision™ digital video event capture system provides fast and effective tools for solving a wide range of production line runnability and product quality issues. For its customers this means increased line efficiency, reduced costs, higher production, improved product quality and less customer complaints. With synchronised WebVision® and WebInspector®, operators now have a complete, realtime understanding of production issues and how to rapidly solve them.

TotalVision's solutions provide a wide range of options from portable single-camera designs to full multi-camera fixed systems. All TotalVision™ solutions utilise high-speed and high resolution GigE standard digital cameras and high-intensity strobed LED lighting for exceptional performance and image quality.

TRANCEL SYSTEMS

(#895)

Trancel Systems is a Swedish company that designs tailor made material handling systems for the pulp and paper industry. It has a great know-how with more than 35 years within the industry.

It strongly encourages visitors to its booth at Tissue World so it can demonstrate the latest within bale handling, broke handling, roll handling and wrapping. Its systems are typically fully automatic and delivered as turnkey. It has a local presence in America with its sister company Core Link in Wisconsin and an agent in Brazil. The company is looking forward to discussing the future with visitors at Tissue World Americas 2014.

TREBOR, INC.

(#450)

Trebor: the most reliable source of tissue. For over 40 years, Trebor has been the most dependable source of parent rolls of tissue, towel and napkin for converters around the world. The company specialise in the stable, long-term sources of supply of tissue, which it will highlight at booth #450 at Tissue World Americas 2014. International

sales representatives will showcase Trebor's benefits of fast delivery, product quality and competitive pricing. The company's expertise capitalises on foreign currency exchange, transportation efficiencies and the complexities of international customs requirements. Its customer service and general business style combine to make it the largest supplier of parent rolls in the market.

UNGRICHT ROLLER + ENGRAVING TECHNOLOGY (#1190)

UNGRICHT was founded in 1892



and is today one of the leading producers of engraved rollers. Run by the fourth and fifth generation of the UNGRICHT family, the company attaches paramount importance to the development of its "roller and engraving technology", investing in this promising technology and occupying a leading global position in this business. The company has modern production plants stretching over an area of 60,000 m². Production, offices and storage space comprise an area of more than 45,000 m². UNGRICHT's core products are rollers of any kind such as embossing rollers, Anilox rollers and calendering rollers. Rollers for tissue converting include: top to top rollers, NESTED rollers micro/ macro rollers, rollers for table cloth, napkins, handkerchiefs and facial. New services for design development from UNGRICHT include: design data sheet, vibration analysis, 3D-simulation, kitchen towel and toilet paper rolls from the UNGRICHT laboratory machine incl. lamination.

For the engraving of embossing rollers the most advanced laser units and engraving machines are installed. This guarantees short production times on a low cost base which enables UNGRICHT to offer the service at very attractive prices. For Anilox rollers UNGRICHT has developed a new ceramic material that has improved release properties.

With these new properties the cleaning becomes much easier and the lifetime of the roller is increased. Highlights include: improved engraving technology and surface treatment

for better released properties; rapid prototyping, a system for design development from the first sketch to the final product with low investment.

UNITED CONVERTING AMERICA, LLC

(#400)

United Converting America is the US



division of United Converting, Srl (Lucca, Italy). It has partnered and collocated with International Knife & Saw in Florence, SC, and offers the North American paper converting market, equipment, service and support of the highest standard. It excels in the development, design and implementation of new paper converting systems as well as optimising existing production and equipment processes. It also features service and support from its facility in Florence and strives for its team of highly-skilled professionals to bring an enhanced experience to its customers.

VALLEY ROLLER COMPANY, INC.

(#1015)

Valley Roller Company offers an extensive



line of rubber coverings specifically tailored for the tissue and towel market. Its knowledge of elastomer science and compounding technology coupled with its first hand knowledge of converting applications has led to the development of high performance coverings. As customers look to improve product appearance, increase bulk, and run faster line speeds, the roll covering demands in the re-winder cannot be overlooked. Converting roll coverings must exhibit resiliency, abrasion resistance, good modulus, and low hysteresis properties to function well in the specific application. These properties will determine the suitability of the covering in the application and will greatly impact the degree of success in meeting and exceeding converting finished product quality standards.

The company's field representatives are skilled in listening to customer needs and matching rubber covers to

embossing and converting application challenges that deliver success and added value. Customers from coast to coast in North America and around the globe count on Valley Roller for solutions to the most difficult rubber roll challenges. Call the company or visit its website, www.valleyroller.com for more information.

VALMET

(#600)

Valmet - a leading services and technology company. From 1 January 2014,



Metso's Pulp, Paper and Power business serves its customers with an even more focused and competitive approach as Valmet Corporation. Valmet's focus is on developing and supplying services and technologies especially for industries that use bio-based raw materials. For the benefit of the tissue industry, it delivers the Best Available Technology and Best Operational Processes utilising Best Acting People.

Its customer promise, 'Forward', illustrates a commitment to helping tissue companies improve their performance by developing technologies and services that are in the forefront. The company is committed to moving customers' performance forward. Visit its stand (#600) at Tissue World Americas 2014 and get to know us all over again.

VALTEC MACHINERY CO., LTD. (#1040)

VALTEC is a China-

VALTEC based engineering company and supplier committed to provide engineering design, machinery, rebuild solutions and turnkey projects for the pulp and paper industry. It provides complete solutions for making tissue and towels. The tissue machines family includes: crescent former tissue machine, suction former tissue machine, eco cylinder tissue machine, fourdrinier towels machine, deinking lines, virgin fibre lines, milk carton and cup stock lines, approach flow systems, broke system, engineering, turnkey projects, complete solutions for making paper and board, hybrid former fine

paper machine, testliner and fluting paper machine and coated/uncoated board machines.

VANTEK INC VanTek, Inc. is a

(#1010)



leading source and supplier of used pulp and paper equipment and power plants from America and Europe to global customers. The company offers a wide variety of pulp and paper machines and mills, power generators from IMW -85+MW, and specialised services including dismantling, shipping, reinstallation and start-up. VanTek also helps Mill Owners to liquidate complete idled mills, and is now working with several paper companies to sell their shut down paper machines, as well as complete pulp and paper mills from various locations in Canada, USA, and Europe. For more information contact snelson@vantekinc.com or call 360-694-9922.

VOITH PAPER INC.

(#1100)

Voith Paper is VOITH a pioneering company and partner to the tissue industry, offering new and customised production lines, rebuilds, single products and services. It has a unique process knowhow to create holistic product solutions at all stages of the tissue making process. With customer requirements in mind, it develops products that provide economic and ecological advantages. As a leader in innovation, Voith Paper is the competent partner for a complete range of products and services. With global manufacturing and service capabilities, it is dedicated to the ongoing pursuit of advancements to help its customers evolve their process of tissue making. A wide range of services results in superior quality and

WEKO NORTH AMERICA, INC. (#485)

WEKO manufactures a rotor damping system that is used throughout the world to apply chemicals such as lotion, softeners and fragrances

total cost efficiency for your tissue mill.

to tissues and sanitary towels. Applications include household paper towels and toiletry paper. The system can be easily retrofitted on existing production lines and it assures highest efficiency and reproducibility.

WEST PENETONE CORPORATION

(#670)

"Stickies removal." West Penetone has been an innovator in "stickies removal" since the advent of secondary fibre. Its Pensolv products de-tackify and dissolve stickies. Pensolv products are environmentally advanced and highly effective at the removal of stickies such as hot melts, latex, waxes, resin and pitch.

XERIUM TECHNOLOGIES

(#590)

A new patentpending roll cover/ venting concept



that is saving tissue makers millions in energy costs will be unveiled during Tissue World. The company will also feature other technologies that improve machine performance and create a higher quality product:

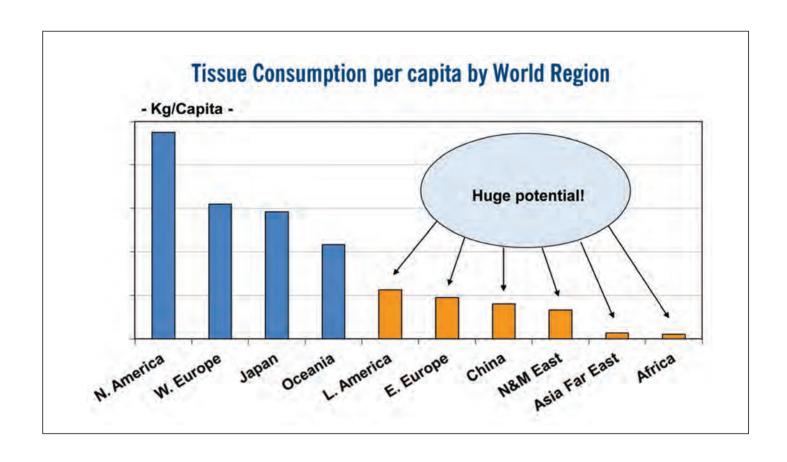
SMART® Technology provides realtime monitoring and measurement of nip performance, supporting multinip positions for unprecedented simultaneous analysis.

Rebel's unique venting combinations of suction, blind drilled and grooved pressure roll covers provide superior nip conditions for tissue quality and machine efficiency.

Huyspeed tissue felt technology is specifically engineered to provide faster startups, improved dewatering and reduced breaks. Huyspeed optimises pressure transfer for start-up and drainage, provides high elasticity with unique yarns and batt construction, and features excellent contamination resistance. FormSoft is an advanced triple layer tissue fabric engineered to provide high-speed drainage over a short forming length. FormSoft's patented weft ratio also delivers the highest fibre support with excellent dimensional stability and uniformity throughout the life of the fabric. www.xerium.com

Now with new mill information covering 8 m tonnes + of Chinese tissue capacity!

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"Once I might have said I ran my mill... that changed years ago. Run, no – manage, yes."

ric Taylor is the mill manager at Cascades Tissue Group's Rockingham, North Carolina site. "I start the day at 6:30am with a review of email and machine run data. The focus is always to stay current with the health of the operation such that when problems do arise, and they always will from time-to-time, they are recognised, prioritised and addressed while they are still small.

"After understanding the current situation and addressing or responding to anything emergent, it is time for my first cup of coffee.

"Arriving at work between 7:30 and 8:00am the focus is to deal with issues from overnight more completely as well as any lengthy email correspondence. A tour of the plant is something to be done as much as possible. My preference is before the 9:00am operations meeting. There is no substitute for a tour to know the fact and the flavour of the operation. Seeing the equipment and talking with the employees help to keep everyone and everything connected on the same page.

"At 9:00am we hold the daily operations meeting with all the department managers. The meeting serves to discuss any safety issues, review the performance of the day prior and the focus of the current day. With so much information available on the history of the operation, the past performance is well known to all. The current situation and plan is the most important part of the communication. That it takes place face -to-face and keeps all on the same page and on the same team. If there are issues requiring follow-up, they are either dealt with immediately or scheduled at that moment for a time when the proper resources can be available.

"The rest of the day typically consist of conference calls, meetings, email review and preparation work on future

plans and presentations. Lunch is something usually worked through as the frequency of interruptions is lowest.

"My fortune is to work for a good company and with good people. Years ago I might have said I ran my mill. That changed years ago. Run, no – manage, yes.

"The culture of my mill has developed over the 11 years I have been here. Communication is open and transparent. My people work well together as one team with one goal. Years ago my focus was on many of the small, technical details in addition to the larger business decisions. A reputation was formed that my employees referred to as the "20 questions". As opportunities (otherwise known as problems) would come up, I might ask as many as 20 questions to understand completely the scope of the issue, the action that had been taken, options remaining available, what had not been done yet, and who had ownership. Now, those questions are all asked and answered by my people. They own the safety, production, cost and quality of the operation with a level of intensity as great as I ever had. Their level of intensity and focus to catch problems while small and continuously improve their area of responsibility has made our operation a success. My focus now is keeping and continuing to enhance the workplace culture. They manage and own the details now.

"As the day closes, more review of the production and face-to-face exit reports from the department managers. The day at work closes between 5:30 and 7:00pm depending upon what needs to be done. Checks of email and performance go right up to the point of sleep around midnight.

"My job working at the mill with these people is a joy, and it's pleasurable to see their achievements. But I don't always tell them that - I just ask the 20 questions."



By MASSIMO BERTOCCHI chief executive of Martèl

The importance of effective dust removal

Explosion prevention from dust build-up is an ever-increasing hazard for tissue manufacturers. Here, Martèl's chief executive Massimo Bertocchi talks to TW about how its effective removal can create a safer working environment as well as a better end product.

n converting processes, effective dust removal is becoming ever more important. How successful it is affects the quality of the final product and also impacts the safety of the whole factory.

During the transformation of raw materials into the final product, tissue machines produce dust particles and the quantity produced mainly depends on the type of paper, the process and the speed of the machines. However, the amount of dust removed from the production department depends solely on the type and efficiency of the suction and filtering plant. Any contamination of the final product by a different type of dust unequivocally compromises the quality and any concentration of paper dust in a closed environment can create an explosive mixture.

This dangerous mixture is one of the biggest risks in factories. Incredibly, this risk is frequently directly increased by the old filtering system that uses bag filters that accumulate dust in big quantities on the surface and then at a certain



moment when the filter starts the cleaning process, blowing compressed air from the clear side of the filter, generating a detachment of the dust from the surface of the bags and generating a cloud of dust in high concentration. This is the most dangerous situation for explosion prevention.

A typical way to reduce this risk on bag filter plants is to repeatedly start a cleaning process, but this trick doesn't fix the problem. In fact it simply reduces the risk and increases the energy consumption of the air compressor.

'Any contamination of the final product by a different type of dust unequivocally compromises the quality.'

Technically speaking, a valid solution for this explosion risk is the use of water filters (scrubbers) to catch the dust, but the costs of the plant grows significantly and the necessity of successive water treatment makes this solution not convenient in factories without paper pulpers.

The Multi Waste filter is a completely different system that solves the explosion risk at its root, without using any water in the process. Multi Waste achieves this result because it's a dry filter with a continuous cleaning system that removes the dust preventing the accumulation inside the filter. In fact, the dust is continuously and automatically compacted by a worm screw and expelled to be disposed, or recycled when possible.

Dusty air enters into the top side of the main chamber of the Multi Waste filter and then is uniformly distributed on the self-cleaning cylinder. During this process the air is forced to rotate around the cylinder releasing eventual heavy particles in a specific collection point. Finally the air passes through

exit issues

the cylinder leaving the fine dust on the filtering surface where cleaning nozzles continuously removes the dust. The dust is then sent to the compactor.

The biggest benefits of the Multi Waste system are:

- Absence of explosion risk.
- Reduction of energy consumption (for example a bag filter for 100'000 m3/h needs roughly 36 Kw of energy plus the energy for the compressed air; a Multi Waste for 100'000 m3/h needs only 18 Kw without any additional source of energy).
- Reduction of spaces necessary for the filtering plant.
- Fast installation thanks to preassembled transportable version.
- Possibility of installation inside or outside of the building.
- The air capacity of the Multi Waste system depends on the model and on the filtering class requested by the customer; but in any case the range is:
- From 10'000 m3/h to 80'000 m3/h for the preassembled version, transportable on standard truck.
- Till 180'0000 m3/h for the "Multi Waste Export" version, that is prefabricated but not assembled and it can be shipped in standard containers.

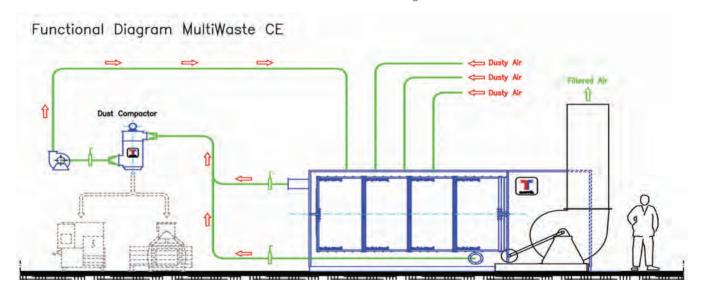
Some 36 factories in Europe are already using the Multi Waste system instead of bags filters or scrubbers, two of which are renown companies in the paper sector: WEPA Lucca (four Multi Waste each of 75'000 m3/h installed in two factories in Lucca, Italy) and Industrie Cartarie Tronchetti (five Multi Waste each of 50'000 m3/h and one Multi Waste of 25'000 m3/h installed in the factory located in Pannes, France).



Typical devices used to discharge the collected dust. On the left is the cyclone separator with final horizontal screw conveyor. The second is a vertical compactor where the screw conveyor is inside in a vertical position.



Inside the multi waste filter; the point where the filtered air exits from the self-cleaning filter



A typical functional diagram with the complete flow of the air from dirty air entrance to filtered air exit

Events calendar

Event	Date	Location	Website
MARCA 2014	15 - 16 January 2014	Bologna, Italy	www.marca.bolognafiere.it
UPAKOVKA/UPAK Italia	28 - 31 January 2014	Moscow, Russia	www.upakitalia.it
Tissue World Americas	18 - 21 March 2014	Miami, USA	www.tissueworld.com
2014 Shandong (International) Technique and Equipment Exhibition on Pulp & Paper Industry	18 - 20 March 2014	Shandong, China	paper.expoline.cn/index.asp
MIAC Tissue Business Point	26 - 27 March 2014	Lucca, Italy	www.miactissue.com
Asian Paper 2014	23-25 April 2014	Bangkok, Thailand	www.asianpapershow.com/
ISSA INTERCLEAN 2014	6 - 9 May 2014	Amsterdam, Netherlands	www.issainterclean.com
CIDPEX 2014	14 - 16 May 2014	Chengdu, China	www.cnhpia.org
PLMA 2014	20 - 21 May 2014	Amsterdam, Netherlands	www.plmainternational.com
China Paper 2014	15 - 17 September 2014	Shanghai, China	www.chinapaperexpo.cn
PAP-FOR Russia 2014	28 - 31 October 2014	St. Petersburg, Russia	www.papfor.com
Tissue World Asia	11 - 13 November 2014	Shanghai, China	www.tissueworld.com
ISSA INTERCLEAN 2015	25 - 27 Feb 2015	Mexico City, Mexico	www.issainterclean.com
ISSA INTERCLEAN 2015	22 - 24 April 2015	Warsaw, Poland	www.issainterclean.com
Tissue World	16 -19 March 2015	Barcelona, Spain	www.tissueworld.com
SINCE/ANEX 2015	25-27 May 2015	Shanghai, China	www.anex2015.com www.sinceasia.com



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