The independent news provider for the global tissue business

TISSUE WORLD

NOVEMBER / DECEMBER 2013

GERMANY
Innovating to beat the market trend

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TISSUE WORLD

November/December 2013

In this issue

By HELEN MORRIS
Tissue World, Editor

GLOBAL MARKET MUST TAKE CARE TO CREATE BALANCED EXPANSION

As 2013 draws to a close, this issue of TW reflects on the key trends and project start-ups of the past year and looks in detail at what the industry can expect in 2014.

Our two special features, the Project Survey and Annual Review, make for reflective reading. This year's Projects Survey charts new tissue capacity being added, ordered or in final planning stages in 2013-2014. Details of some 151 projects have been revealed for 2013-2014, with China claiming a staggering 75 of them.

Many projects have been delayed or closed as the prospect of overcapacity increasingly shapes the market. The global tissue market can't absorb all of the announced capacity and so it's likely that the number of closures will accelerate again in 2014. As our Marketissues article highlights, if these ambitious expansion plans do continue at this pace, particularly in China, it will create an even bigger threat to tissue margins.

In our Annual Review, key industry players reflect on 2013 and give their predictions for trends in 2014. Political concerns in some countries have impacted supplies in Europe. Customers' expectations in all regional markets and product sectors continue to increase and tissue production is expected to become even more competitive, while energy and environmental costs also increase.

However, demand for the majority of sectors in the tissue market is expected to remain resilient and recession-proof. Technologies are expected more than ever to decrease production costs and help overcome raw material price increases. Long term efforts in innovation, sustainability initiatives and improving energy efficiencies are already paying off.

GERMANY: READY TO MEET THE CHALLENGE

A gleaming top of the range Mercedes-Benz parked in a car park of the competitively stocked and priced supermarket Aldi. It's a famous cliché in Germany, and as with all the best clichés it has an element of truth. It means that even Germans, proud participants in Europe's leading economy, are feeling the pinch.

It's nowhere near as serious as many of the other nations whose currency is the euro, but the fact that it is being felt here casts a worrying shadow over certain fundamental problems which have loomed up on to the horizon.

The statistics make for a strangely contrasting picture: Europe's leading economy, but a rapidly ageing population with all its attendant financial burdens; one of the lowest birth rates in the world; relatively low immigration.

As for the country's tissue industry: per capita consumption is at a ceiling. Consumers purchase the full range of retail tissue products, consuming 13.7kg of tissue per year, a figure that's a little above the western European average of 11.9kg in 2012. Sustainability is high on the agenda and is proving a vital tool for the industry.

The German tissue market represents around 20% of the European Union's capacity, making 1.5m mt/yr of T&T. Machines are typical in terms of the trim range for the region, with the average being 3.6 metres, while average mill production is on the high side compared to other producing countries in the EU at nearly 100,000 MT/Yr.

Significantly, a daunting 78% of tissue sales in 2012 were accounted for by private label.

As Metsä Tissue's Christoph Zeiler, who TW met for this issue's German Country Report, explains that while there are no simple solutions to the big challenges "what there is in the German market is room to grow and innovate. But it's up to us to be active."

Tissue has a history of technological innovation, product initiatives and energetic marketing. It's time to write another winning chapter.

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By *ESKO UUTELA*
PRINCIPAL, TISSUE, RISI

Will closing capacity help the Chinese tissue overcapacity situation?

As the Chinese government reveal plans to close down more of its pulp and paper industry we consider whether the target capacity of 7.42 million tonnes by the end of this year is achievable... or enough.

In late July, the Chinese Ministry of Industry and Information Technology (MIIT), which is directly under the leadership of the State Council and responsible for the development of China's industrial sector, publicised capacity closure details for 19 industries, including the pulp and paper industry, for 2013. This preliminary announcement included annual capacity of 6.21 million tonnes at 274 companies scheduled to be retired by the end of this year. The second list was released about one month later, adding 1.21 million tonnes of capacity, raising the goal for closing capacity to 7.42 million tonnes. All of the machines on the list were required to stop production by the end of September, and will have to be dismantled by the end of this year.

For the tissue industry, no specific limits have been defined for the speed, width or capacity, but closure requirements of non-wood pulp mills and small fine paper mills also affect tissue production. Many small tissue PMs in China have been fed by non-wood pulp, mill broke from fine paper machines and/or recovered paper. At old Chinese fine paper mills, mill broke was not directed back to the machines, but used separately for feeding a few small tissue PMs located in the corner of the mill complex. With fine paper production closing, tissue production will lose its raw material and be forced to close as well. Also, a number of small straw pulp lines have supplied fibre for tissue PMs and their closures oblige tissue PMs to close because generally the economics of these tissue mills do not allow for market pulp purchases from outside the company.

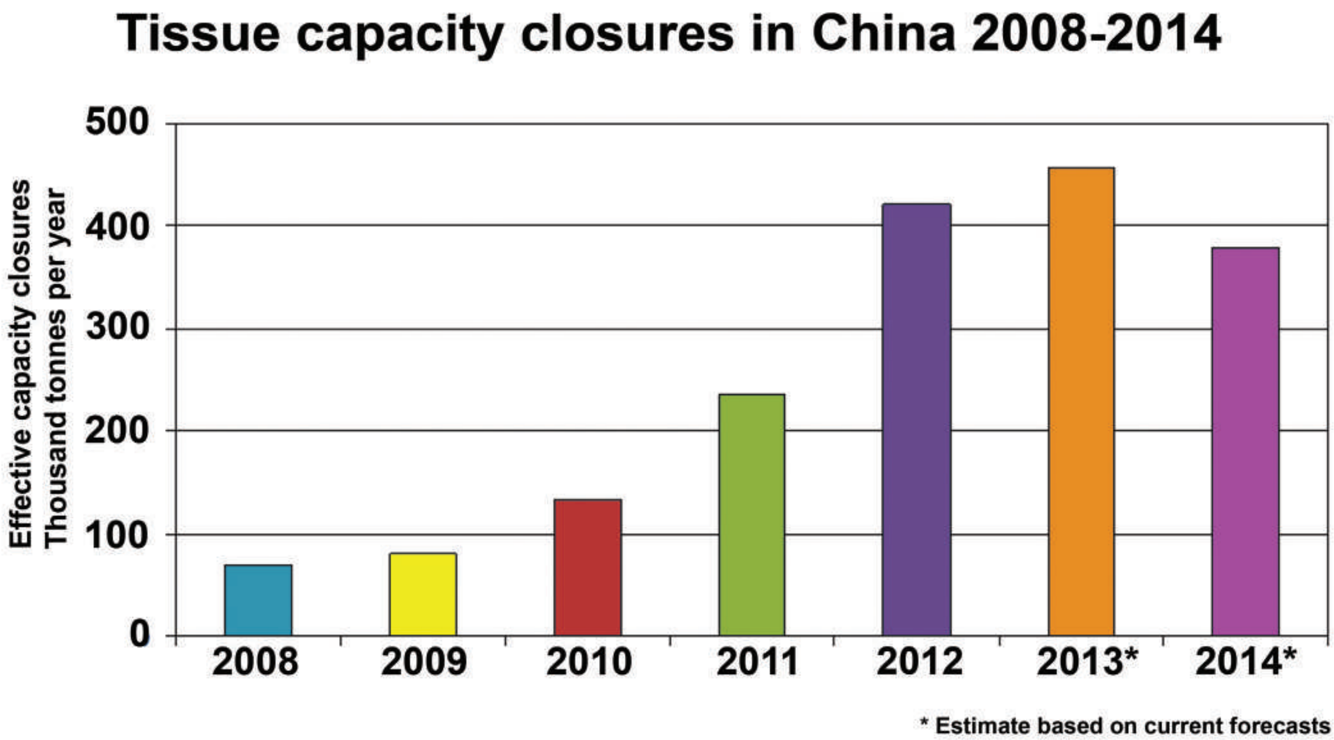
THE FAR REACHING EFFECTS OF MILL CLOSURES

The raw material base also dictates to a large extent where in China closures take place. The industry along the coastal zone, which uses imported wood pulp, is less affected by the regulations than the old mills using non-wood (mainly straw and reed pulp) and recovered paper in hinterland China. The new closure order also means the end for all recycled fibre-based pulp lines below the capacity of 10,000 tonnes per year, which hits the old and small tissue mills using locally collected recovered paper and further reduces the already surprisingly low recycled fibre use for tissue in China.

We have already seen a lot of tissue capacity closures in recent years. From the beginning of 2008 through September 2013 we have been able to identify more than 1.5 million annual tonnes of capacity closures, and because the recording of closures is normally delayed to some extent, this year is likely to see still more capacity closing than what we currently know. In addition, there have certainly also been mill closures that we cannot identify. In recent years the rate of closures has accelerated, due to the overcapacity situation in the Chinese tissue market and the Chinese authorities' modernisation programme for the paper industry.

> *'From the beginning of 2008 through September 2013 we have been able to identify more than 1.5 million annual tonnes of capacity closures, and this year is likely to see still more capacity closing.'*

Looking at the capacity that has closed recently, we can see that the closures have not just hit the smallest and oldest tissue mills. In addition to environmental reasons, there have also been closures due to economic, qualitative and land use reasons. In 2012-2013, a number of larger mills have



been shut down, including Shaanxi Aohui Paper (60,000 tonnes per year, environmental reasons), Huizhou Fook Woo Paper (capacity reduction by 36,000 tonnes per year due to ownership change and economic and qualitative reasons), Shanghai Potential Paper (qualitative and economic reasons), Shaanxi XiAn Lintong Hangxing (environmental reasons) and Ningxi Meijie (mill removal order by authorities for land use reasons and capacity reduction by about 50,000 tonnes per year as only the two largest PMs were removed to the new site). In addition, several existing producers have closed their older small tissue PMs after starting up new larger PMs. Good examples of such companies are C&S Paper, Ningxia Bauhinia, Shengda Group Sund Paper and Henan Luohe Yinge.

WHAT THE FUTURE HOLDS

Now the main questions are: will tissue capacity closures continue at the same rate or even accelerate as in the past few years and will these closures substantially reduce the overcapacity? We believe that the Chinese government will still continue its restructuring programme, and there are still a lot of small tissue mills which cannot fill the criteria for environmental protection and/or energy efficiency set by the government, which means that mandatory closures will continue in 2014-2015.

The overcapacity situation and tight competition are likely to cause problems for some existing mills and we are likely to see closures for economic reasons in the coming few years, but it is difficult to estimate how many producers and mills will be hit by competitive troubles. Our estimate is that the closures will probably continue in 2014-2015 at about the same level as in 2012-2013, but it is possible that this is a conservative estimate when looking at the trend since 2008.

But even if closures accelerate from the level of 400,000-450,000 tonnes per year to 500,000-600,000 tonnes per year, their effect on the demand/supply situation is not decisive and certainly not enough to counterbalance all the new projects coming on stream in the next couple of years. Assuming the 2012-2013 closure rate continues, the current outlook is that the net capacity change will be close to 1.0 million tonnes this year, about 1.5 million tonnes in 2014 and again close to 1.0 million tonnes in 2015. Additional closures could improve the situation, but only marginally. Major project delays and postponements would be needed to really improve the situation. So the ball is in the suppliers' court, including the largest players with massive investment targets. Neither the Chinese nor the global market can absorb all of the announced capacity, so my message to the Chinese companies is simple: please reconsider your expansion time schedules, otherwise there is a major threat that margins will collapse radically and an otherwise attractive and strongly growing tissue business in China will be ruined by the excessively ambitious growth targets of individual suppliers!

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3

UK

SOFIDEL ACQUIRES NTG PAPERMILL

Tissue giant Sofidel has boosted its presence in the UK after it acquired Lancaster-based NTG Papermill.

The agreement became effective on 1 October, with the company adding the move enables it to "optimise the operations of its converting plants in the UK".

Luigi Lazzareschi, chief executive of Sofidel, said: "Through this acquisition we further strengthen our production capacity in a major market place such as Britain.

"It is a move that enables Sofidel to optimise the operations of its converting plants in the UK."

NTG Papermill produces approximately 32,000 tonnes per year.

Luigi Lazzareschi, chief executive of Sofidel

Argentina

CELULOSA ARGENTINA BOOSTS CAPACITY

Celulosa Argentina has diversified its product offering after it invested in a complete tissue line from Voith.

The company will now also produce high-quality tissue papers and continue to pursue its long-term growth strategy.

The system will be supplied as a Process Line Package (PLP) and will go on stream in Capitán Bermúdez in early 2015.

The new VTM 1 production line has a wire width of 2,760mm and runs at 1,800m/min.

It will produce 30,000 metric tonnes of 15–21 g/m2 basis weight toilet tissue and kitchen roll from virgin fibre.

Celulosa Argentina has three mills in Capitán Bermúdez (Santa Fe province), Zárate (Buenos Aires province) in Argentina, and Juan Lacaze in Uruguay. The company produces up to 210,000 metric tonnes of pulp and 194,000 metric tonnes of paper annually.

The scope of supply includes a VTM 1 tissue machine consisting of MasterJet T 1-layer headbox, Voith steel cylinder with high performance hood, the innovative shoe press technology NipcoFlex T and a MasterReel.

Voith's OnQ quality control system equipped with non-radioactive sensors for the measurement of moisture content and fibre weight, the OnC process control system as well as the entire stock preparation, engineering and additional services complete the PLP package.

Global

KP TISSUE AND KPLP BOOST EBITDA BY 8.1%

KP Tissue has reported EBITDA of $31.7m compared to $29.3m a year earlier in its Q2 2013 results.

The Canadian tissue manufacturer released its results and those of Kruger Products (KPLP) reporting revenue of $246.8m compared to $231.3m in Q2 2012, an increase of 6.7% year on year.

Mario Gosselin, chief executive of KP Tissue and KPLP, said: "Our results for the second quarter were very solid, and we are particularly pleased that our EBITDA reached $31.7m.

"As we expected, our Canadian branded businesses reported higher sales when compared to the first quarter of 2013 due to a shift in promotional activities."

The company increased its market share in all consumer product categories and Gosselin said that market acceptance of its TAD products "is as we have anticipated".

The start-up phase of the company's TAD facility is progressing as planned.

He added: "Margins have been somewhat impacted by rising commodity prices, fibre in particular, but these were not unforeseen... demand for our TAD products in the private label market in America is strong, and interest continues to build."

However, he anticipated that higher commodity prices for pulp and energy will further impact the company's third quarter results.

'Margins have been impacted by rising commodity prices, fibre in particular... demand for our TAD products in the private label market in America is strong, and interest continues to build.'

Mario Gosselin, chief executive of KP Tissue and KPLP

Global

KADANT LAUNCHES HIGH-PERFORMANCE DOCTOR BLADE LINE

Kadant UK has launched its nanotechnology enhanced composite doctor blade line.

The new line incorporates patented nanotechnology enhanced resins that allow for the composite resin matrix to be manipulated on a molecular scale to produce high-performing, wear-resistant doctor blades.

Michael Draper, research and development manager at Kadant UK, said: "The results from mill trials in Asia, Europe, and North America, as well as our own laboratory testing, have exceeded our expectations with respect to nano-blade performance and operating characteristics.

"The advances in matter manipulation, from microtechnology to nanotechnology, have allowed us to further enhance the performance of our doctor blades on the toughest applications, including stickies removal from lead-in paper dryers, hard-rubber wet end rolls, and critical positions on press rolls."

The nanotechnology-based doctor blades feature increased stiffness, increased resistance to chipping, improved inter-laminar bonding, and a lower coefficient of friction compared to conventional blades.

As a result, roll surface cleaning is improved and doctor blade life has been shown to increase significantly compared to that of conventional blades.

The company said the high-performance doctor blade results in fewer blade changes and the potential for reduced operating costs while enhancing overall doctoring and machine efficiency.

Kadant UK is a subsidiary of Kadant and based in Bury in the UK.

It is a provider of doctor blades, doctor blade holders, and doctoring systems for papermaking and other industrial processes.

UNGRICHT LAUNCHES PRODUCTION PROCESS FOR CERAMIC COATED ANILOX ROLLERS

Roller manufacturer Ungricht has launched a new production process for ceramic coated Anilox rollers.

The family-owned business said the key-component of the process is a new ceramic coating line that is designed for Anilox rollers with lengths from 2,000mm to 6,000mm.

It can apply a wide range of different types of ceramics to find the optimum for nearly all applications.

Along with the new coating line, complete periphery has been integrated into the optimising process to increase the capacity and cost reduction.

Artur Koslowski, sales manager tissue/embossing, said this introduces the possibility of reducing the sales prices for ceramic coated Anilox rollers in the above mentioned range for the tissue converting industry.

SCA LAUNCHES HIGH-END HAND TOWELS

SCA has announced the availability of its most luxurious line of high-end hand towels.

Featuring an embossed leaf throughout, the company said the hand towels are soft, strong, and smart - designed to match customer expectations for Class A office buildings, fine dining restaurants, and other top-end establishments.

Joe Russo, SCA vice president sales and marketing, AfH professional hygiene North America, said: "The leaf design represents quality you can see and feel - and people will notice the quality of these towels.

"We know that for our customers, every impression counts, which is why we used a leaf to reinforce their high-end image and provide a luxurious experience, even in the restroom."
The company said the high-end hand towels "offer superior softness and comfort".

"The towels are strong - individual towels don't break apart and are more absorbent, so they dry hands faster and require fewer per use.

"In addition, they're smart - with one-at-a-time dispensing, renewable and recycled content, and fewer towels needed per visit, they reduce overall paper usage and restroom clutter."
Several of the products are also FSC certified.

Russo said: "Our customers have been asking for a high-end line - products that complement their image and offer a superior restroom experience.

"This new high-end line offers a premium product to address those needs, and we are confident it will open new market opportunities for SCA in North America while providing our customers with a broad line of paper products to meet their end-user needs."

Global

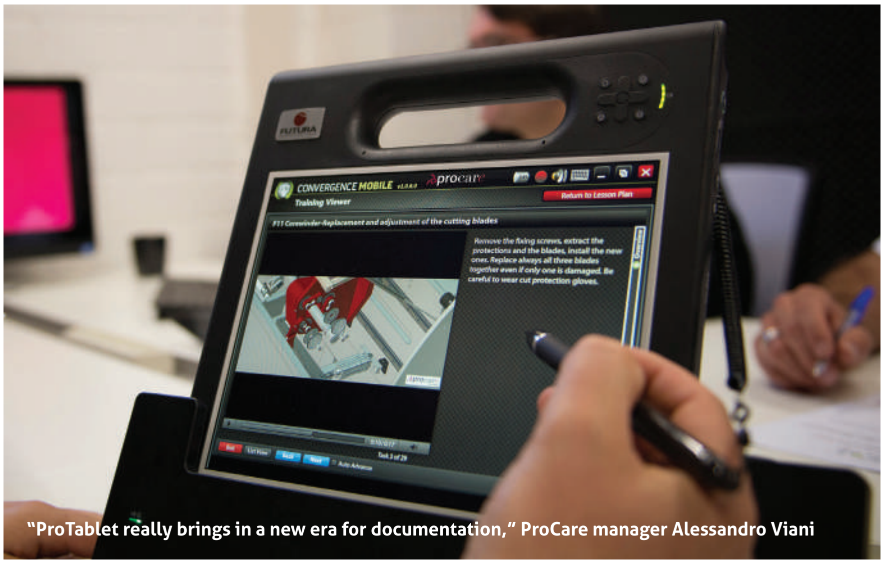
PROCARE DEVELOPS PROTABLET

ProCare, Futura's training and support division, has developed the future use and management of maintenance documentation with its ProTablet product.

In a statement, the company said that ProCare offers "access to continuously updated documentation for all Futura tissue convering equipment in one rugged, portable device".

Customers can access detailed procedural videos with ease. By scanning a barcode on the relevant component with ProTablet's built in reader, the user can call up all documentation and other resources relevant to the task at hand.

ProTablet can be docked and integrated with the customer's own IT system, or linked to a projector for professional training. It can also be used to send spare parts requests direct to ProCare or an internal purchasing office.



"ProTablet really brings in a new era for documentation," ProCare manager Alessandro Viani

ProCare manager Alessandro Viani said: "ProTablet really brings in a new era for documentation, designed to make life simpler for the operator.

"Just consider how complicated it was in the past to locate the relevant section in a manual, or even electronically in a remote office.

"Today we are able to explain every possible maintenance activity using our customer's own language through brilliantly clear, instantly-accessed technical 3D videos, right next to the relevant equipment."

GREEN HYGIENICS LAUNCHES 100% TREE-FREE, BAMBOO-BASED LINE

Green Hygienics has launched a line of 100% tree-free, bamboo-based products under its Sensational® and Clearly Herbal® brands.

The Green Innovations subsidiary said the bamboo products include bath tissue, facial tissue, paper towels, napkins, and copy paper.

Philip Rundle, chief executive of Green Innovations, said: "Bamboo is becoming a popular alternative to trees due to its sustainability, affordability and global availability.

"Kimberly-Clark announced last Autumn that they are projecting a significant change to bamboo-based products by 2025. We are introducing our line in 2013."

The company is bringing 100% tree-free bamboo-based consumer tissue products to the North American market; a market valued at an estimated a $21.6bn.

It has approximately $1.4m in products being manufactured and being received in September 2013. These products will be available to retailers immediately.

Jeff Thurgood, VP of sales of Green Hygienics, added: "Being first-to-market with our products that offer the consumer and the merchant the option to be eco-friendly is a huge advantage.

"We feel it could rapidly become our highest demand product and provide significant revenues to the company."

Italy

EMTEC ELECTRONIC HOLDS TISSUE WORKSHOP

Emtec Electronic has held its first tissue workshop together with the Center of Paper Quality Lucense.

On 17 October, pulp and tissue producers, chemical suppliers as well as tissue converters attended the workshop at Lucense in Lucca, Italy.

The company said its emtec TSA Tissue Softness Analyzer, which was introduced during the workshop, is on "its way to become an industrial standard worldwide".

In a statement, it said the product "opens brand new and exciting options for process optimisation".

There was presentation about the TSA as well a question and answer session.

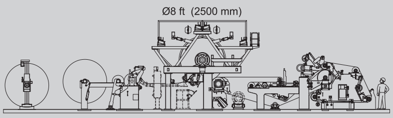
HERGEN
PAPER MACHINERY

New Tissue Machines Line

Line SMART

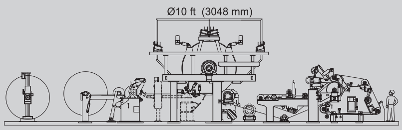
SMART FIT

Max. width at reel: 2760 mm
Design speed: 1100 m/mim
Yankee size: 2500 mm
Max. production: * 57 t/d



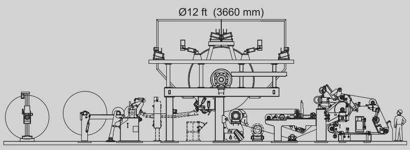
SMART PLUS

Max. width at reel: 2760 mm
Design speed: 1200 m/mim
Yankee size: 3048 mm
Max. production: * 67 t/d

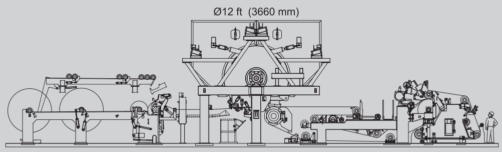


SMART ECO

Max. width at reel: 2760 mm
Design speed: 1200 m/mim
Yankee size: 3660 mm
Max. production: * 55 t/d

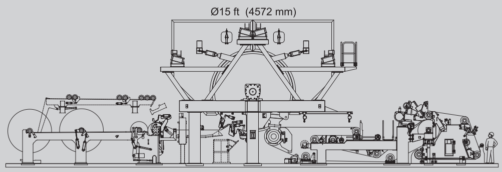


Line EVO



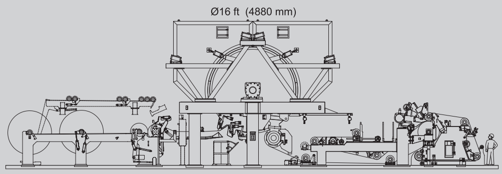
EVO 12

Max. width at reel: 2760 mm
Design speed: 1600 m/mim
Yankee size: 3660 mm
Max. production: * 80 t/d



EVO 15

Max. width at reel: 2760 mm
Design speed: 1800 m/mim
Yankee size: 4572 mm
Max. production: * 96 t/d



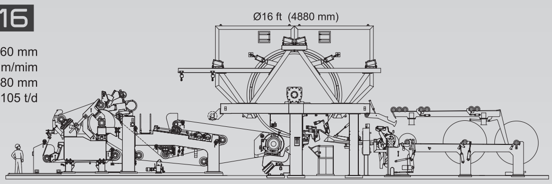
EVO 16 ECO

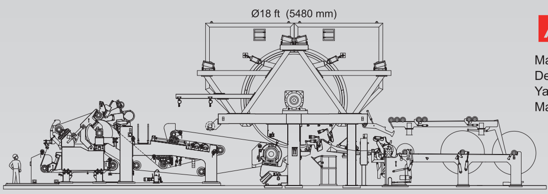
Max. width at reel: 2760 mm
Design speed: 1800 m/mim
Yankee size: 4880 mm
Max. production: * 100 t/d

Line AVANTIS

AVANTIS 16

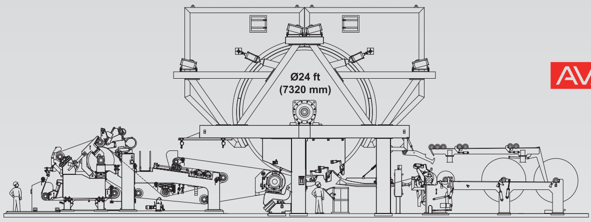
Max. width at reel: 2760 mm
Design speed: 2000 m/mim
Yankee size: 4880 mm
Max. production: * 105 t/d





AVANTIS 18

Max. width at reel: 2760 mm
Design speed: 2200 m/mim
Yankee size: 5480 mm
Max. production: * 120 t/d



AVANTIS 24 ECO

Max. width at reel: 2760 mm
Design speed: 2200 m/mim
Yankee size: 7320 mm
Max. production: * 125 t/d

* Referred to a single press and 18gsm at pope reel with 20% crepe ratio

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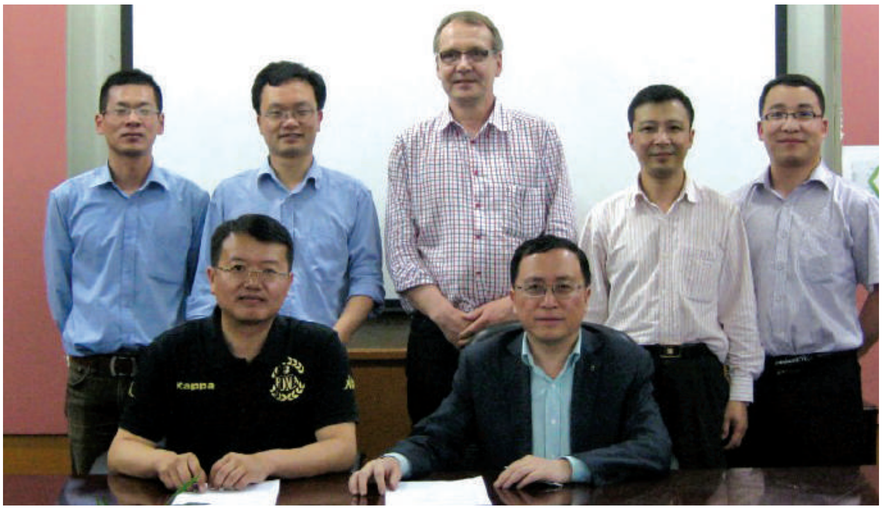
China

CHINA'S ZHEJIANG JINGXING PAPER ENTERS TISSUE MARKET



Done deal: Zhejiang Jingxing Paper and Andritz sign off for the Steel Yankees

Chinese linerboard producer Zhejiang Jingxing Paper has entered the tissue market after it ordered two Steel Yankees from Andritz.

The machines will be supplied to the company's Pinghu city, Zhejiang Province site, where they will produce high-quality facial and toilet paper. Start-up is expected at the end of 2014 and mid-2015 respectively.

The PrimeLineST tissue machines are designed for speeds of 1,900m/min and for paper widths of 2.85m. They will be equipped with 18 ft. diameter PrimeDry Steel Yankees with head insulation.

METSO AND KAWANOE ZOKI EXTEND COOPERATION IN TISSUE MAKING

Metso and Kawanoe Zoki have announced a new license agreement covering the supply of Advantage DCT 40 and DCT 60 technology to China.

Under the new license agreement, Kawanoe Zoki will market, manufacture and install Advantage DCT 40 and 60 machines that will be produced at the company's workshop in Zhejiang, China.

Metso will supply key components including OptiFlo II TIS headboxes, Metso Yankee cylinders and suction pressure rolls, to form part of Kawanoe Zoki's deliveries.

The first joint delivery to China will be four Advantage DCT 60 tissue machines to Shandong Dongshun Group Co.

Shandong Dongshun Group Co placed an order for four Advantage DCT 60 tissue machines in July, 2013.

Two of the machines will be installed at the Dongping mill in Taian City, Shandong Province in the second half of 2014 and the other two at the same mill in the first half of 2015.

Chen Shu Ming, chairman of the board, Shandong Dongshun, said the move helps the business to "become more competitive with higher production and quality products in the Chinese market".

Shandong Dongshun Group Co is one of the leading tissue makers in China in terms of production and business scale.

It has expanded its product range to include baby diapers and sanitary napkins in addition to toilet and tissue paper.

NANNING SUGAR TO BUILD NEW TISSUE CAPACITY IN CHINA

Nanning Sugar Industry plans to establish a subsidiary to build and run new tissue paper production capacity at an existing site in Nanning city, Guangxi autonomous region, China.

Although the firm said that details about the project, such as its supplier and timeline, have not been worked out, it announced that the new capacity could be around 20,000tpy.

The new capacity will be located at the firm's Pumiao mill, which can currently produce 130,000tpy of bagasse pulp. The output from the fibre line will be used to produce tissue on site.

According to Nanning Sugar, it will form a joint venture (jv) called Yuewei Paper with two partners to manage the new tissue capacity.

Nanning Sugar will have a 53% stake in the jv, and two other partners - Dongguan Hengwei and Gaozhou Sugar and Paper - will each hold a 23.5% stake.

Mills closed: Nanning Sugar is a major pulp and paper producer in the Guangxi region, but it has closed a good deal of old, small equipment over the past two years due to pollution issues and poor performance.

In 2013, the firm announced it would shut down a 50,000tpy cupstock mill and a 50,000tpy UFP facility in Nanning.

Last year, it closed another 35,000tpy printing and writing paper plant in the same city.

Besides the Pumiao site, the firm currently has a capacity of 50,000tpy of paper at several other mills.

News from RISI www.risi.com

China

TISSUE WORLD EXHIBITS AT CIPTE

Tissue World has exhibited at the 2013 China International Paper Technology Exhibition and Conference (CIPTE).

Held between 23-25 September at the National Agriculture Exhibition Center in Beijing, some 200 exhibitors from nearly 20 countries and areas participated, occupying a space of 13,000 m2.

CIPTE is jointly organised by China Paper Association, China Technical Association of Paper Industry and China National Pulp & Paper Research Institute.

It is operated by China Pulp and Paper Magazines Publisher of China National Pulp & Paper Research Institute, and was held at the Exhibition Center New Hall.

The opening ceremony was attended by industry leaders including Bu Zhengfa, president of China National Light Industry Council; Qian Guijing, president of China Paper Association;

Chen Xuezhong, president of China Technical Association of Paper Industry; and Chen Esheng, president of China Light Industry Group.

Cao Chunyu, president of China National Pulp and Paper Research Institute, said at the welcoming speech: "Although there are still some difficulties, China's paper industry has lots of development opportunities and is a major focus of the global paper market.

Delegates at the TW exhibit

"As one of the organisers of the exhibition, China National Pulp and Paper Research Institute has been involved in hosting more than 20 international paper exhibitions, accumulates rich experience in organising exhibitions over the years.

"We believe that 2013 CIPTE will help exhibitors and audiences to achieve their expected target."

CIPTE has become the important platform for domestic and international paper and related enterprises to explore emerging markets in China and overseas. The exhibition showcased a range of processes across the supply chain, including pulp and papermaking mechanical equipment, components, accessories, automation equipment and instruments, as well as waste paper and waste paper-using technologies.

During the show, the 2013 China Paper Technical Conference was also held by China Technical Association of Paper Industry and China National Pulp & Paper Research Institute.

At the conference, Zhang Liqun, research fellow of the Development Research Center under the State Council, presented "China's Macro Economic Situation and Policy Analysis".

Zhao Wei, secretary general of China Paper Association, also presented a talk: "Thoughts on Problems Facing China's Paper Industry and Their Solutions".

They analysed China's economic trends and the status of China's paper industry from a macroeconomic point.

Other speakers from United States, South Africa, Finland, Germany, Japan and France also gave different presentations on the reuse of recycled fibres, ozone bleaching, dewatering of residues in paper industry, Nano-Cellulose preparation, paper chemicals and specialty paper.

XERIUM TARGETS TISSUE INDUSTRY WITH PRESS FELT PLANT BUILD

Consumables company Xerium Technologies has targeted the tissue industry with its plans to build a press felt plant near Shanghai, China.

The company said the greenfield plant will employ the industry's most advanced press felt manufacturing technology, capable of supplying high quality products for the region's most demanding machines. Production is expected to begin by Q1 2015.

In a statement Xerium said its decision to build the plant is in response to growing sales, especially in Asia, as well as a strong customer preference for high-end press felt products, especially in tissue.

Harold Bevis, Xerium's president and chief executive, said: "This new low-cost, high-tech plant in China is another big step forward for Xerium.

"This state-of-the-art facility will produce the most advanced press felts in the world and its quality processes are being modeled after our plant in Gloggnitz, Austria, which will create one of the best press felt facilities globally.

It will be a big advancement for our Chinese customers specifically as it will allow Xerium, for the first time ever, to provide quick in-county press felt service to the largest pulp, paper and board market in the world."

Xerium Technologies is a global provider of industrial consumable products and services.

short issues

Metsä Tissue has appointed Mikko Forsell as CFO and member of the Metsä Tissue management team as of 1 January 2014. He joined the company in 2005 and has since held various positions in finance. He is currently working as vice president, purchasing, and replaces Markus Holm, who has been appointed CFO for Metsä Board Corporation as of 1 January 2014.

Double E Company has appointed Bryan Gregory as its chief executive. Gregory has a broad background in industrial products, safety sensors, control systems and communications. Prior to joining the business he was president of Dynaco USA, a private equity backed manufacturer of high performance industrial doors that was acquired by Assa Abloy in 2012.

SCA Tissue Finland is considering building a new steam boiler facility at its 80,000tpy tissue mill in Nokia, near Tampere, in Finland. The firm has applied for an environmental and operating permit for the plant from the Regional State Administrative Agency of Western and Inland Finland. SCA declined to respond to any questions regarding the project as the process is ongoing.

China

SCA TO MAKE OFFER FOR VINDA

Tissue giant SCA is to make a public cash offer for the Chinese tissue company Vinda.

The offer is conditional on SCA achieving an ownership share in Vinda in excess of 50%.

SCA is currently the second largest shareholder in Vinda; it became a part owner in the tissue manufacturer in 2007 and currently has a 21.7% holding in the company with two representatives on its board of directors.

The offer will be Hong Kong Dollar (HKD) 11.00 per share, corresponding to a premium of approximately 34.5%, based on the average closing price over the past 30 trading days.

Jan Johansson, president and chief executive of SCA, said: "Vinda is a strong player in the Chinese tissue market and has demonstrated healthy growth and profitability.

"As a majority shareholder, we would see the potential to further strengthen the company to ensure its future competitiveness."

SCA's Jan Johansson

Vinda is the third largest tissue company in China.

In 2012, Vinda's sales rose 26% and amounted to approximately SEK 5bn. The company's operating margin was 12.9%.

The complete prospectus for the offer is expected to be presented no later than 30 September.

The transaction is expected to be finalised in the fourth quarter of this year.

Global

BRAZIL'S SEPAC INVESTS IN LOW-ENERGY TISSUE MACHINE

Tissue manufacturer Serrados e Pasta de Celulose (Sepac) has boosted its energy efficiencies after it invested in a Voith VTM2 tissue line.

The tissue producer is now one of the 10 largest toilet paper producers in South America, and the new line will increase its production by a further 35,000tpy.

It is designed to reach operating speeds of up to 2,000m/min and is capable of producing 100tpd of single and double ply toilet paper with basis weights between 15 and 19g/m2. It is expected to be up and running in the first semester of 2014.

Rogério Berardi, global vice president for tissue machines at Voith Paper, said: "It is very important for us to be able to develop and supply solutions for yet another project for Sepac – the third one in five years."

The line has a NipcoFlex T shoe press and the 4.8m steel plate Yankee cylinder "will enable greater operating speed and paper quality, but also allow Sepac's new machine to use up to 20% less thermal energy".

The Sepac PM 5 will feature a MasterJet Pro T headbox, and the scope of supply also includes the complete stock preparation process with an IntensaPulper and two TwinFlo refiners with Pluralis discs for lower energy consumption.

France

DÉLIPAPIER TO UPGRADE AUTOMATION FACILITIES

French tissue producer Délipapier has said it will upgrade its automation facilities to boost the availability and performance of its tissue production.

The Sofidel Group site has signed up Metso to upgrade the automation of TM1 and water treatment at the Délipapier plant in Frouard, France.

The delivery will include an upgrade to the state-of-the-art Metso DNA control system, an upgrade to the Metso IQ quality control system, including a non-nuclear Metso IQ Fibre Weight Measurement, and related comprehensive product training.

The project is scheduled to be completed in October 2013. The value of the order will not be disclosed.

François Lecomte, Délipapier paper mill director, said: "This significant upgrade will enhance productivity allowing Délipapier to bring better quality to its customers, especially for the flagship brands of Sopalin and Le Trèfle in France along with Lotus and Moltonel in Benelux."

Délipapier started its operations in 1999 with a full automaton solution from Metso that has remained in operation to the present day.

More than 12 years after startup, the mill said it wanted to upgrade its still reliable existing control system to benefit from the latest available process and system improvements.

With this upgrade, the mill aims to implement new hardware and software to increase the stability of the tissue making process, improve production efficiency, boost automation availability and to better its process visibility and operability.

Délipapier is part of the Italian group Sofidel, the second largest manufacturer of paper for hygienic and domestic use in Europe.

Europe

SODRA INCREASES PRICES

Pulp giant Södra has increased the cost of its NBSK softwood pulp in Europe to USD 900 per tonne.

The company said the move was "due to improved market fundaments".

The price hike took effect on 1 October.

The business has also increased the price of its softwood pulp to US$ 880 per tonne.

The hike took effect in Europe from 1 September 2013.

In a statement, the company said: "The market balance for softwood pulp is good and has been so over the summer.

"Södra expects the market balance to improve even further during the autumn." The company declined to comment further at this time.

Germany

METSÄ GROUP'S TISSUE AND COOKING PAPER BUSINESS INVESTS

Metsä Tissue is to invest in a paper machine upgrade at its Raubach mill in Germany.

In addition to higher product quality and increased capacity, the company said the upgrade will improve the energy efficiency of tissue paper production.

The investment is part of Metsä Tissue's energy efficiency improvement programme.

Christoph Zeiler, SVP, Tissue, Western Europe, said: "Between 2007 and 2012 we have reduced our energy use company-wide by 20%.

"By 2020 our aim is to improve our energy efficiency by a further 10%."

Toscotec has been chosen as the main supplier of the paper machine upgrade at Raubach mill.

The project will be handled on a turnkey basis, including engineering, full installation, start-up and training.

It is due to be completed by the end of 2013.

Holland

FAMILY BUYS BACK MAJORITY STAKE IN DUTCH TISSUE MANUFACTURER VAN HOUTUM

The Dutch tissue manufacturer Van Houtum is back in family hands.

Henk van Houtum, the previous managing director of Van Houtum, bought back the majority stake in the firm, which the private equity fund Friesland Bank Investments (FBI) acquired in 2011, from Rabo Capital at the end of July. The price tag of the deal was not disclosed.

According to Van Houtum, the parties agreed on the transactions following dissent over the long-term future of the company. FBI has been part of Rabo Capital since November 1, 2012.

Van Houtum operates one mill in Swalmen, in the south of the Netherlands, where it can produce around 42,000tpy of tissue from 100% recycled fibre on two machines. The firm has some 200 employees and generates annual sales of around Euro 60 million ($80 million).

When FBI acquired the majority share in Van Houtum, the private equity fund announced plans to buy a new paper machine for the tissue mill in the near future. A Euro 20 million investment was earmarked for a 30,000tpy tissue line.

The new unit, PM 5, was planned to replace Van Houtum's existing PM 3 at the beginning of this year. However, the plan was never realised.

News from RISI www.risi.com

USA

CASCADES TARGETS GROWTH ON AMERICAN WEST COAST

Cascades has expanded its tissue presence on the West coast of America after it announced plans for a second paper machine at its Oregon plant.

It will acquire the specialty paper machine previously operated by Boise, which is located adjacent to the existing Cascades tissue machine.

The machine will be reconfigured to produce 55,000 tonnes of tissue paper annually bringing the total tissue paper capacity of the St. Helens' site to 120,000tpy.

The total cost of the project is estimated to be $35 million and start-up is planned for the fourth quarter of 2014.

Suzanne Blanchet, president and chief executive of Cascades Tissue Group, said: "We have targeted the West coast as an area of growth for us.

"This machine will manufacture hand towels and napkins for the AfH market. The retrofitting of an existing machine will allow us to bring the additional capacity to this market at a reduced capital cost and on a faster timeline than if we were to build a new machine. "Moreover, the addition of a second machine will allow us to improve the overall operating efficiency of the St. Helen's operation as a whole. "

The new line is expected to add 29 new jobs over the coming year and help preserve 59 existing jobs at the mill.

Mario Plourde, president and chief executive of Cascades, added: "This investment fits perfectly with our stated strategic objective of prioritising investments in the tissue and packaging sectors.

"The addition of this machine combined with other ongoing projects will further strengthen Cascades growing position in the North American tissue market."

Elsewhere, Cascades has announced the launch of its 2013-2015 Sustainable Development Plan.

The three-year plan provides the framework for the company's efforts in respect of sustainable development for 2013-2015.

short issues

Companhia Paduana de Papéis (Copapa) is investing in a new tissue conversion line, manufactured with Italian technology, which is set to be launched next September at Santo Antônio de Pádua, Rio de Janeiro state, southeast Brazil. The new Mile line is expected to increase product quality, as well as fulfill the company's total tissue paper production capacity and amplify its market penetration among high quality products.

Liuzhou Liangmianzhen has unveiled plans to build a new tissue paper mill in Liuzhou city, Guangxi province. The firm's board of directors has approved the scheme, wherein RMB 402.5 million ($65.3 million) will be earmarked to erect two tissue machines with a combined capacity of 80,000tpy at the site. Its output will be made from a mix of bleached bamboo and wood kraft pulp.

Pakistan

PAKISTAN'S PACKAGES BOOSTS EFFICIENCIES

Pakistani tissue and paper producer Packages has lowered its energy consumption after it signed up Voith to optimise its TM9.

At the beginning of 2013, Voith installed head insulation in the company's Yankee cylinder and additionally improved its internal condensate removal system.

It now saves 210 kg of steam per hour and has also increased the speed of TM9 to 2,000m/min.

Hyder Ali, chief executive of Packages, said: "From the beginning, the machine produced the highest quality, which has not only strengthened our position in the Pakistani market but has also driven demand from abroad.

"We are working on an ongoing basis with Voith on further improvement of the machine and to achieve low energy consumption.

"We have succeeded in operating TM9 at this new speed level but we are not resting on this success; rather we are constantly working to achieve even higher goals."

The tissue machine delivered by Voith was started-up in the summer of 2008. It has a MasterJet T headbox, a suction press roll concept, a 16-ft cast Yankee cylinder and a MasterReel reeler.

Packages is a producer of paper, board and tissue in Pakistan.

The company started in 1958 as a joint venture between Swedish packaging producer Akerlund & Rausing.

It recently founded a joint venture in Kasur, Pakistan, with Stora Enso. The company employs about 3,000 people and in 2012 posted sales of 185 million euros.

Turkey

TURKEY'S PARTEKS BOOSTS CAPACITY

Turkish tissue producer Parteks has boosted its tissue capacity after it invested in a new tissue line.

The Toscotec-supplied line will be installed in Kayseri in the Central Anatolian region and start-up is expected in the first half of 2014.

Founded in 1996, 300-staffed Parteks Paper is a fully integrated manufacturer of tissue paper for household and community, corrugated cardboard and fluting paper.

The tissue paper is produced with recycled paper and virgin pulp, with tissue brands including Panda and Senta.

The existing plant houses a TM1, a tissue machine that started up in 2007 and PM1, a fluting machine and corrugating line.

A converting facility for tissue is close to the plant.

Toscotec said the project will be focused on reduced energy consumptions, usage of selected raw materials in the manufacturing process, recovery and re-usage of the process water, low emissions (noise and pollutants) as well as on green energy adoption with the application of a Steel Yankee dryer technology.

Delivery is based on an intensive energy-saving concept and includes the approach flow featuring ultimate Toscotec technology TT SAF®, broke line, a MODULO-PLUS tissue machine with single-layer headbox, single press configuration and Toscotec steel Yankee dryer TT SYD-12FT.

Supply will also comprise an electrification and controls package, tissue machine auxiliaries like a natural gas heated hood, steam and condensate system, provided by Toscotec associate Milltech.

A two unwind stands Toscotec rewinder TT WIND-P will complete the package.

The machine has a width of 2,85m and a design speed of 1600mpm, and it will produce 75 tonnes a day of high-quality facial, toilet and towel grades.

Thailand

WANGPAPER TO BOOST CAPACITY

Thailand's Wangpaper is to boost its capacity with the installation of an Intelli-Tissue® 900 machine supplied by PMP Group.

The deal was made at the end of August and is promised to deliver "low consumption and premium quality".

PMP Group said: "We are proud to announce that one of our first projects in Thailand will be executed for one of the country's major sugar producers.

"PMP Group has been very active in the Asian market since 2008 and has managed to complete 38 major projects in six Asian countries, for 28 customers.

"Now, the mutual project with Wangpaper will expand this number and make PMP Group present in seven Asian countries."

Calling all budding photographers!

Tissue World is launching the very first edition of the Tissue World Photography Awards.

Launching at Tissue World Miami in March 2014, the awards will celebrate the world of tissue and inspire present and future generations of tissue professionals by showcasing outstanding photography.

This can include images of the tissue industry's passion as well as individual's stories and experiences.

The TW team is asking for any budding photographers that are proud of the tissue industry and their role in it to submit photographs that illustrate dedication, passion or a turning point in their history to TW by 15 February 2014.

Winners will be decided on an online voting system at the Tissue World Americas website prior to the event and onsite during the show.

Winners will be awarded on 20 March 2014 during Tissue World Americas 2014.

The photographs will also be showcased during the trade show at a dedicated exhibition space.

Note to entrants: TW accepts hi-res digital versions or digital/printed copies of the originals. Brands can be shown as long as images are not mere commercials. Photographs will be published on Tissue World and Tissue World Magazine website(s), Tissue World app, Facebook page and Twitter account and any other marketing platform used to promote your nomination. This competition is open to all and not limited to Tissue World Americas 2014 exhibitors.

To participate, contact Jun Leong at jun.leong@ubm.com / +65 6592 0895.

SEVENTY FIVE...

. . . YEARS OF SUSTAINABLE GROWTH.

Our solid foundation
for a sustainable future.

SÖDRA 75 YEARS

SÖDRA

Map 1 T&T operating mill locations in Germany.

Germany: stability with steady growth

By Bill Burns, senior consultant, Fisher International

Germany is the European Union's (EU) largest economy and the second largest producer of Towel and Tissue (T&T), making nearly 1.5 million MT/Yr. That means Germany, second only to Italy, represents about 20% of European Union capacity. Germany went through a series of economic reforms between 1998 and 2005. The reforms addressed chronically high unemployment and low average GDP growth. As a result, there was strong growth in 2006 and 2007 as well as a reduction in unemployment. These improvements, in addition to government subsidised reduced working hour schemes, led to a relatively modest increase in unemployment during the 2008-09 recession and an eventual decrease to 6.5% in 2012. GDP contracted 5.1% in 2009 but grew by 4.2% in 2010, and 3.0% in 2011, before dipping to 0.7% in 2012 driven by investment uncertainty and the decreased exports to recession-stricken periphery countries. Nevertheless, the EU and German T&T business managed to sustain growth through these poor economic times (Figure 1).

German T&T mills are geographically dispersed throughout the country with the largest concentration in the Rhine Valley (Map 1). Germany ranks second among T&T producers in the EU (Figure 2) and second in the number of operating machines (Figure 3). T&T machines in the EU vary

'Germany's cost position in the EU is slightly disadvantaged by higher labour and energy costs'

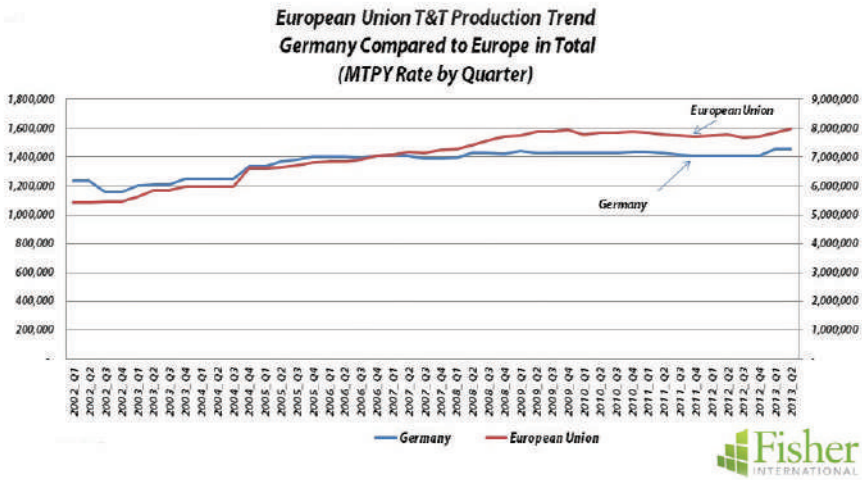


Figure 1 Trend plot for T&T production in the EU and Germany.

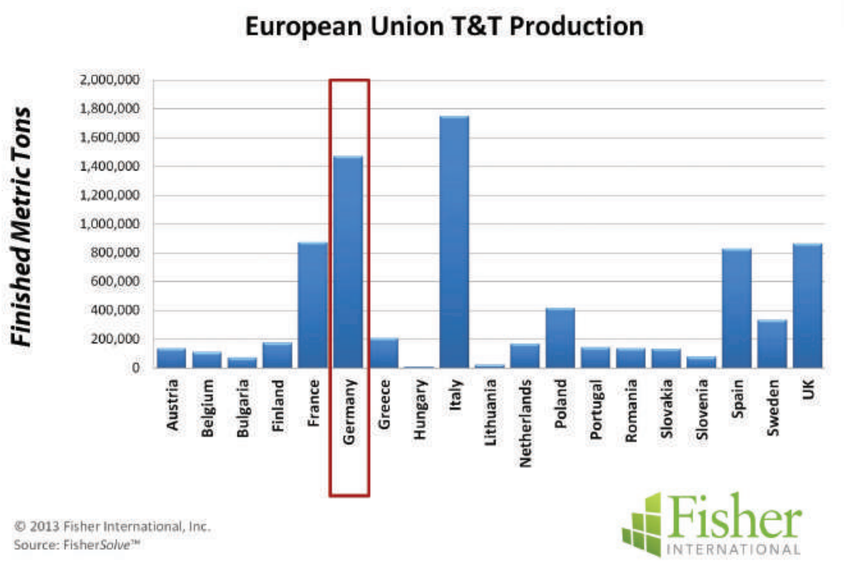


Figure 2 Distribution of T&T production in the European Union.

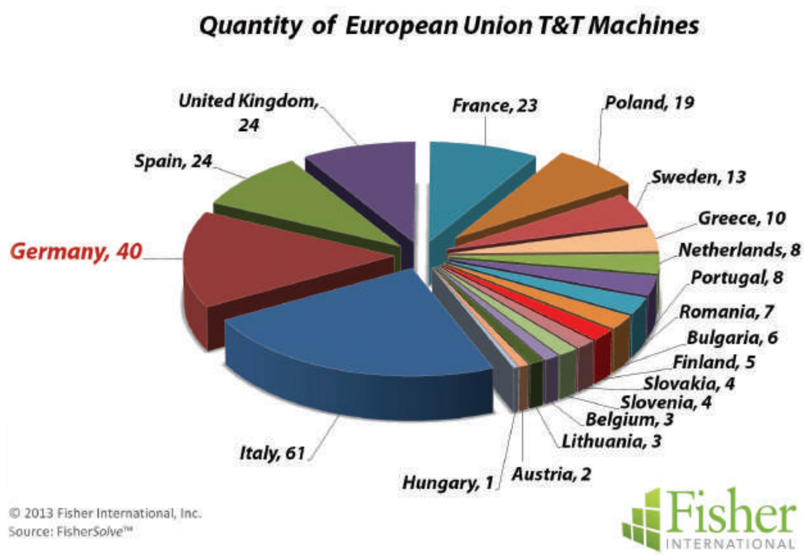


Figure 3 Distribution of T&T paper machines in the European Union.

from narrow two-metre machines to six metres. Machines in Germany are typical in terms of the trim range for the region, with the average being 3.6 metres (Figure 4). Mill production in Germany is, on average, on the high side compared to other producing countries in the EU at nearly 100,000 MT/Yr while the technical age of German machines is a little above average (Figure 5).

Germany's cost position in the EU is slightly disadvantaged by higher labour and energy cost than some of the smaller producing countries (Figure 6). Fibre mix in German mills is 47% market kraft pulp with the remaining being recycled, Sulfite and some TMP (Figure 7). While recycled fibre is present in most countries, it is not in heavy use by major producers. Integrated recycled fibre does provide some smaller producing countries with an advantage over the purchased fibre consumed by larger producing countries like Germany.

German T&T machine production rates are split between machines ranging among the smallest, producing less than 40,000 MT/Yr, and those at more moderate levels, producing in the 40,000 – 60,000 MT/Yr range (Figure 8). Machine trims are narrow with more than half of the machines being

'Integrated recycled fibre does provide some smaller producing countries with an advantage over the purchased fibre consumed by larger producing countries like Germany.'

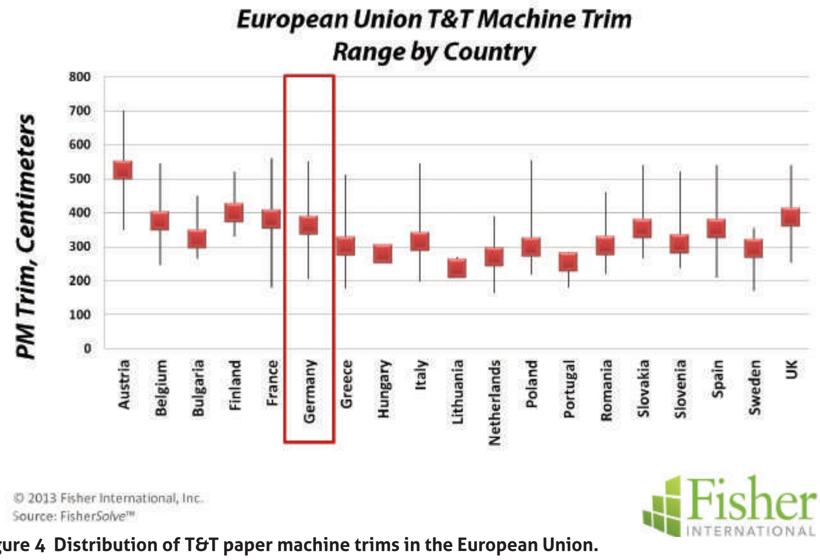


Figure 4 Distribution of T&T paper machine trims in the European Union.

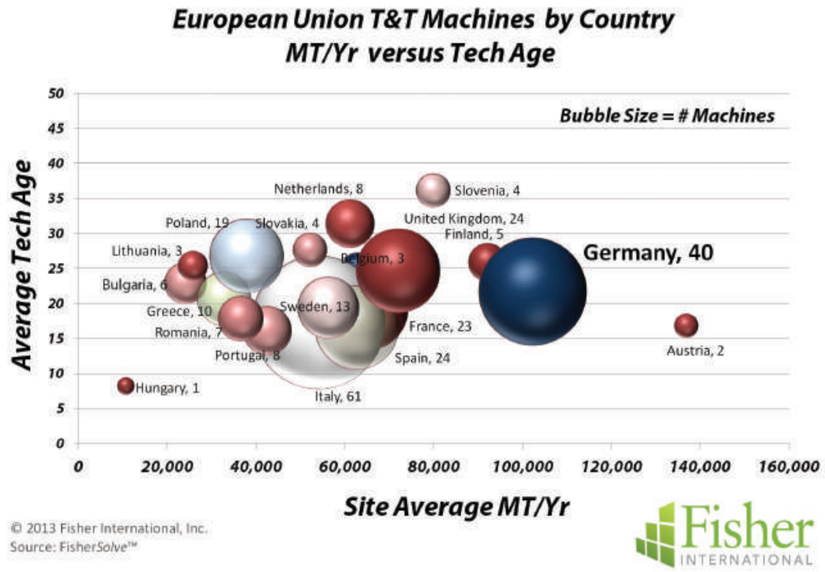


Figure 5 Technical age and production volume comparisons for the European Union T&T paper mills.

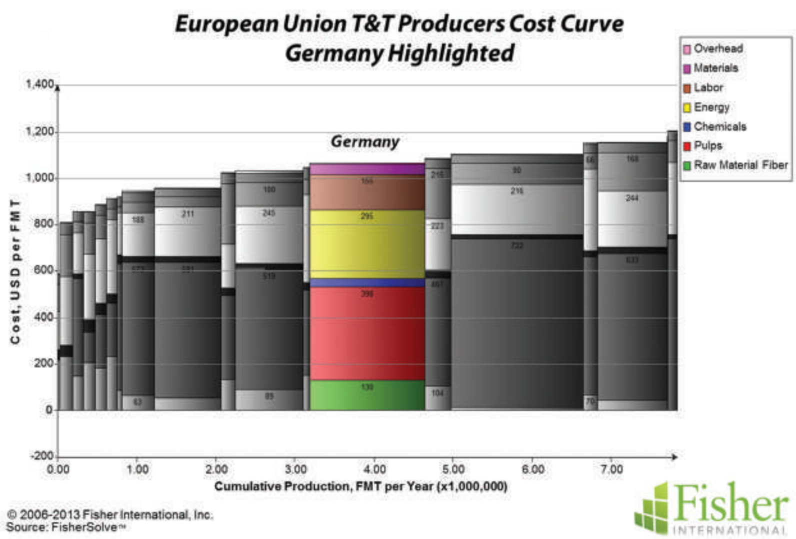


Figure 6 European Union country level cost curve for T&T production with Germany highlighted.

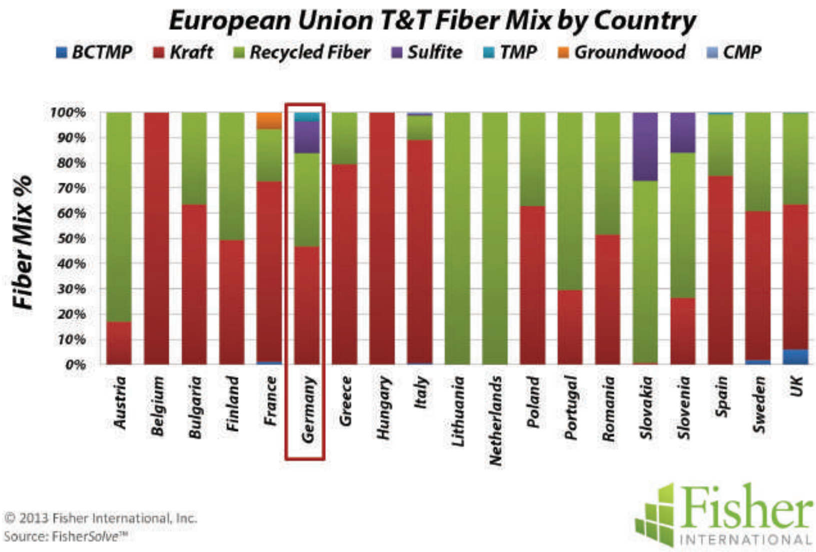


Figure 7 Fibre mix comparison for European Union T&T producing countries.

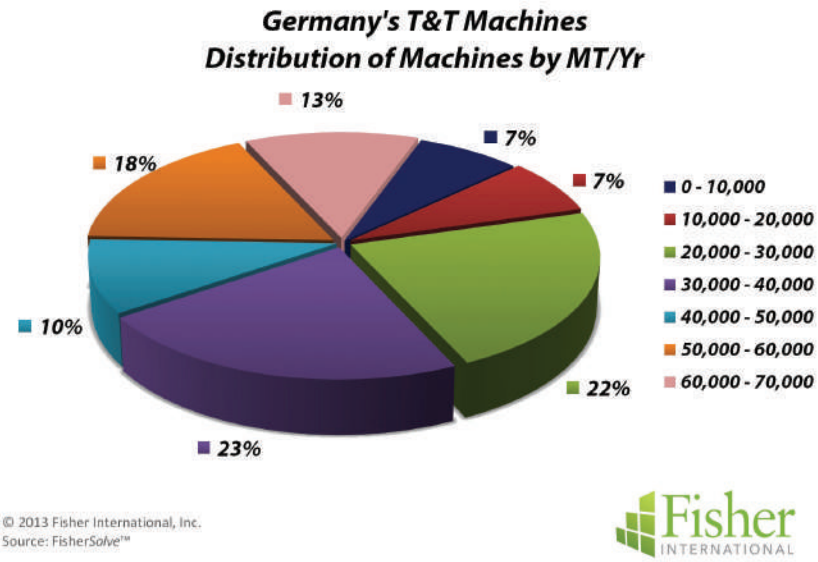


Figure 8 Distribution of Germany's T&T paper machines by production rate.

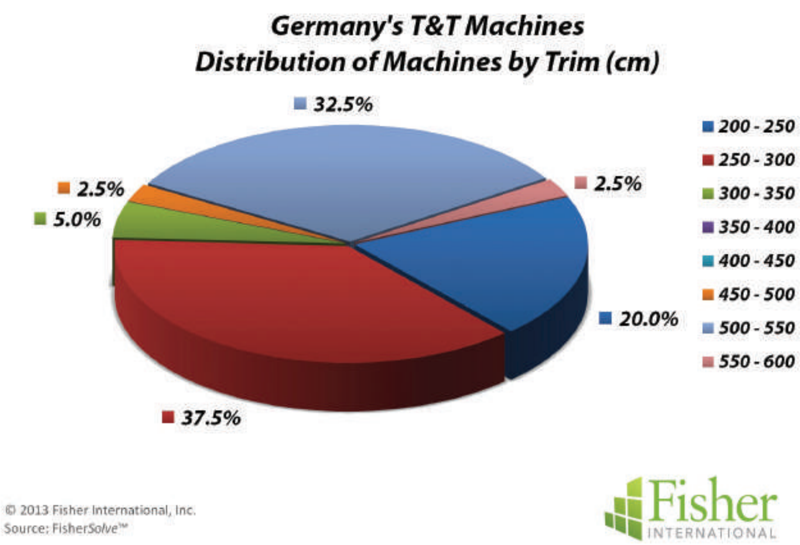


Figure 9 Distribution of Germany's T&T paper machines by trim class.

less than 3.5 metres (Figure 9). About a third of the machines are wider, falling in the 5.0 - 5.5 metre class.

Machine speeds are respectable with nearly 70% of the machines above 1,500 mpm (Figure 10). Only 16% fall in the low speed ranges of less than 1,000mpm. On the international scale, capacity-wise, German machines bias above the average with a large proportion at very competitive capacities. Age of Germany's machines has a wide dispersion above and below average (Figure 11). A noteworthy observation is that the German T&T business is international in ownership with 60% of the mills being headquartered outside of Germany (Figure 12).

Germany in numbers

1.5m

MT/Yr of T&T produced annually

20%

Germany's tissue capacity in the European Union

3.6m

Average trim range of tissue machines

70%

Machine speeds above 1,500mpm

60%

German T&T business that is internationally owned

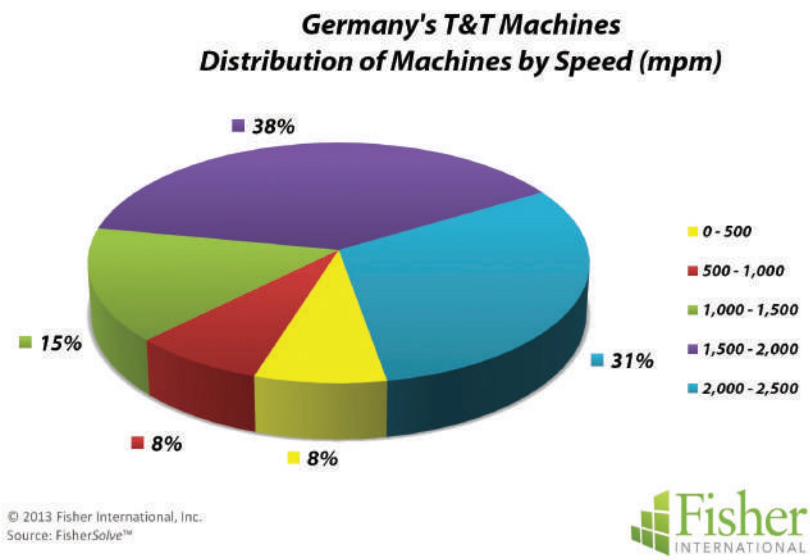


Figure 10 Distribution of Germany's T&T paper machines by speed class.

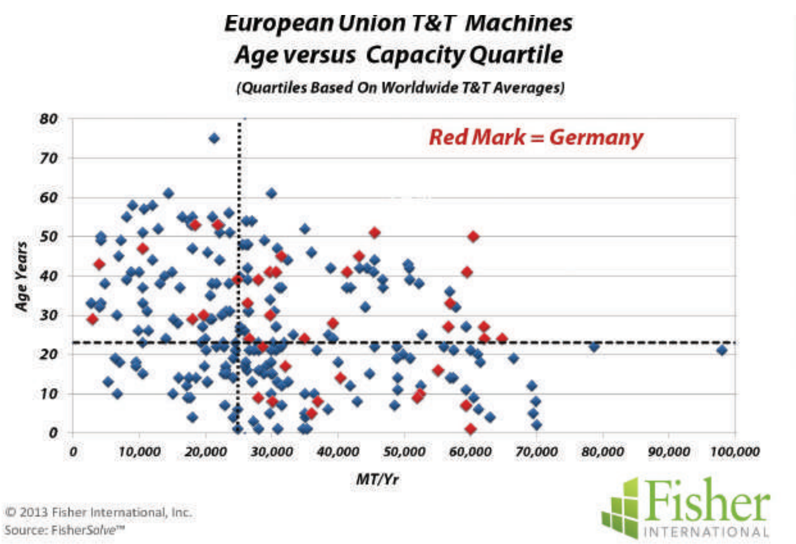


Figure 11 Dispersion of Germany's T&T paper machines against worldwide average production and age.

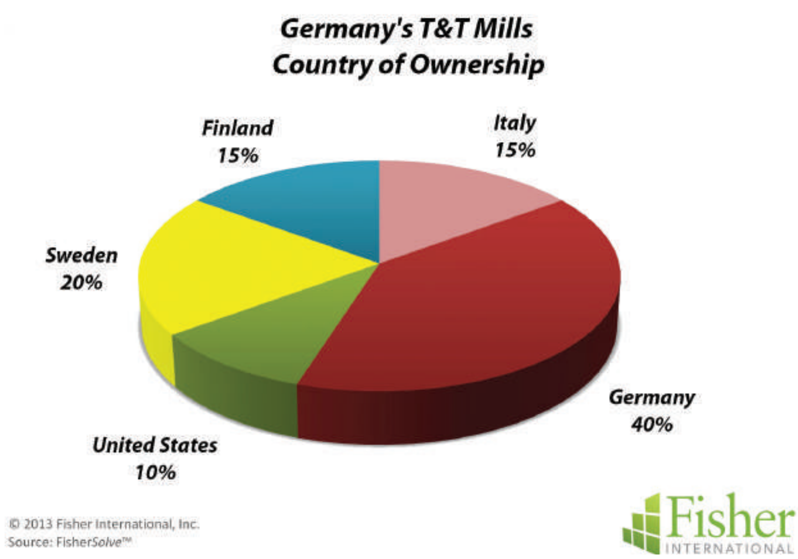


Figure 12 Distribution of Germany's mills by country of corporation ownership.

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.

About Fisher International, Inc.

Fisher International has supported the pulp and paper industry for over 25 years with business intelligence and management consulting. Fisher International's powerful proprietary databases, analysis tools, and expert consultants are indispensable resources to the industry's producers, suppliers, investors, and buyers worldwide.

FisherSolve™ is the pulp and paper industry's premier database and analysis tool. Complete and accurate, FisherSolve is unique in describing the assets and operations of every mill in the world (making 50 TPD or more), modeling the mass-energy balance of each, analyzing their production costs, predicting their economic viability, and providing a wealth of information necessary for strategic planning and implementation. FisherSolve is a product of Fisher International, Inc.

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By IAN BELL
Euromonitor International's global head of tissue and hygiene research

German tissue sales: stagnant but still a regional force

The biggest economic power in Europe is facing a future of uncertainty with challenges that can already be felt in the tissue market.

Germany remains the driving force in Europe in 2013, being the EU's largest member both in terms of population and economic output. Times are changing, however, in spite of a relatively buoyant economy which is the envy of many in a region still feeling the effects of the 2008 crash. Germany's rapidly ageing population, one of the lowest birth rates in the world and relatively low immigration will see the UK emerge as the largest EU member in terms of population by 2050 if current trends continue.

Demographics, as the life blood of the tissue and hygiene industry, will certainly continue to put tissue sales under pressure over the medium to long term. Volume sales are likely to decline by a further 1% to 780,000 tonnes by the end of 2013, with value growth set to either stagnate or decline.

PER CAPITA CONSUMPTION AT A CEILING?

In terms of per capita consumption, the German market is somewhat unremarkable, sticking very closely to the per capita disposable income versus tissue consumption model. Germany is very much at the ceiling of this model, and as an advanced market German consumers purchase the full range of retail tissue products, consuming 13.7kg of tissue per year, this being a little above the Western European average of 11.9kg in 2012.

Where the German market does differ is in consumers' price perception. A staggering 78% of tissue sales in 2012 were accounted for by private label compared to just 45% in the UK and 20% in the US, for example. Private label is a major barrier to growth for the German market, with brands having such a narrow position there is little room for investment in terms of innovation and product promotion. Private label products are rarely (if ever) promoted individually in the press but only as part of a wider retailer offer, meaning that for any innovation the burden is placed on brands to pay for promotion which will ultimately be undermined by a rash of 'me too' products.

'Demographics will certainly continue to put tissue sales under pressure over the medium to long term. Volume sales are likely to decline by a further 1%.'

WET TOILET TISSUE LEADS THE WAY

The only category to really see any growth (+2% CAGR value over 2008-2013) has been toilet paper, which has registered a very modest performance on the back of the increased penetration of wet toilet tissue. This developing category is set to claim 10% of value sales in 2013 as consumers are being won over by a more stringent bathroom hygiene routine. In this sense, Germany leads the way in what is fast becoming a Central European block of wet toilet tissue usage, with Austria and Switzerland also reporting similar penetration rates.

The trick for manufacturers is to try and apply the trends seen in Germany to the wider European market and convince new consumers to enter the category, particularly those who might be currently using baby wipes as a cheap alternative.

GREEN TISSUE OPTIONS

Other factors which could provide a boost to the German tissue industry appear to be heightened consumer sentiment revolving around sustainable and eco-friendly alternatives. To date, most companies and brands as well as private label manufacturers offer at least one "green" product in their range. Aside from eco-labelling and statements on the packaging, consumers have been able to find out about these products through a list created by Der Blaue Engel, a highly respected German eco organisation. While brands such as Kimberly-Clark's Hakle Naturals are present on the list, so are private label products like Aldi's Vitesse and Lidl's Floralys toilet paper.

While the retail value share of recycled toilet paper stands at 8% in 2013, its share of sales has actually fallen from the 10% it held five years ago. Economic concerns have certainly pushed the economy segment of late

'The trick for manufacturers is to try and apply the trends seen in Germany to the wider European market.'

but there would still appear to be opportunities here as the environment regularly scores highly with German consumers and may be an avenue through which manufacturers of both branded and private label products can inject more value into the category.

HARD DISCOUNTERS A FORCE TO BE RECKONED WITH

Looking from the outside, the German retail market for tissue and fmcg in general represents something of a horror story for branded manufacturers, and the thought that other markets might follow Germany's penchant for private label is something of a concern, especially in these less buoyant economic times.

The chief protagonists in the German market have mainly been Aldi and Lidl, both retailers developing from a niche position as 'hard discounters' in the 1980s to dominance in the grocery channel in the new millennium. Hard discounters have completely changed the retail landscape in Germany, and the site of Mercedes-Benz cars in Aldi car parks has become something of a cliché as well as a keen observation in the German grocery channel.

WIDER GERMAN INFLUENCE

The German retail model is something of a threat to the tissue industry as well as other fmcg categories. While the spread of the hard discounting model westwards was curtailed by the move of indigenous chained retailers such as Carrefour and Tesco into private label and everyday low pricing (EDLP) initiatives, championed by Wal-Mart, since the recession in 2008 hard discounters have enjoyed an upward curve. Store numbers have increased, along with value sales, as low average wage rises, inflation and a general lack of consumer confidence have once again made German-type retailing more appealing in Western Europe.

While hard discounting is developing, of more concern to the tissue industry and brand owners in particular is the export of the German model eastwards. With low per capita consumption reported at around 4kg across the region, as well as rising income levels, the East should provide some respite from the harsh conditions found in the West. That said, a less developed retail industry has meant the German model has been adopted relatively readily across nearby markets such as Poland (discussed in last edition), whose close proximity to Germany has certainly seen consumer trends influenced.

Further afield, Russia's X5 Retail Group and even Aditya Birla in India have set out a business model where as much as 40% of sales have been earmarked for private label, in keeping with the German model.

LOOKING TO THE FUTURE

The German tissue market is entering a slow and protracted period of volume and value decline, driven by demographic trends which will see on average 1% of volume leave the market on a yearly basis over the medium to long term, while the hope of value generation also looks to be limited given the stranglehold of private label. To what extent brands can win back consumers is open to question. This will rely entirely on the shoulders of brand owners to come up with meaningful product innovation which will likely have to satisfy consumers' heightened interest in hygiene (both personal and around the home) and offer a point of difference

'For branded tissue players the threat of German patterns of consumption and retail spreading far and wide should be much more of a concern.'

against private label and German consumers' price/quality fixation. Although this is not impossible, recent history would suggest it is improbable.

For branded tissue players which have largely given up on the German market, the threat of German patterns of consumption and retail spreading far and wide should be much more of a concern. While China remains the engine of global tissue growth and significant private label development is some way beyond the horizon, the sea change in German retailing and its effect on value sales should be a warning, encouraging the industry to continue to innovate and work harder to convince consumers that tissue is a worthwhile investment. Treat it as a commodity and it will be one.

FOEX

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Providing PIX pulp price indices to the tissue industry gives the paper producer and buyer insight in the price trends with a weekly frequency. This way companies have better tools to budget their cost or income structure and profitability, and may concentrate on their core businesses with less time spent on price negotiations.

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Note

PIX values, $ or € / metric ton

Product	PIX latest values	
Pulp NBSK USD	870.82	$
Pulp NBSK EUR	644.38	€
Pulp BHKP EUR	572.97	€
Pulp BHKP USD	774.31	$
Paper LWC	662.68	€
Paper Ctd WF	671.68	€
Paper A4 B-copy	839.55	€
Paper Newsprint	470.01	€
Kraftliner	591.32	€
White-top Kraftliner	767.69	€
Testliner 2	463.19	€
Testliner 3	443.18	€
RB-Fluting	434.46	€
PIX OCC 1.04 dd	110.64	€
PIX ONP/OMG 1.11 dd	130.42	€

PIX Pulp indices 24.9.2013

NBSK pulp Europe

The softwood pulp market remains firm. The volumes from Tofte are disappearing from the market and of course being replaced mainly by other Södra-tonnage. This lessens the pressure to sell BSKP from Europe to overseas destinations that have become less interesting over the past few weeks with the European currencies strengthening against the USD.

UTIPULP reported softwood pulp consumption in Europe down by 4% against August 2012. Inventories at the consuming mills were virtually flat from July but down by 25,000 tonnes, or by 10% compared to August 2012 stocks. Port stocks (all grades here)

By **LARS HALÉN**,
senior manager, FOEX Indexes

By **TIMO TERÄS**,
managing director, FOEX Indexes

Change from previous week		%	Change from beg .of year		%
0.89	$	0.10	61.45	$	7.59
-9.95	€	-1.52	30.43	€	4.96
-11.64	€	-1.99	-15.14	€	-2.57
-2.93	$	-0.38	-1.00	$	-0.13
-2.28	€	-0.34	-25.88	€	-3.76
0.62	€	0.09	-24.84	€	-3.57
2.29	€	0.27	-23.34	€	-2.70
-0.84	€	-0.18	-25.56	€	-5.16
-1.18	€	-0.20	7.31	€	1.25
-0.30	€	-0.04	-9.86	€	-1.27
2.05	€	0.44	37.10	€	8.71
2.18	€	0.49	41.69	€	10.38
1.20	€	0.28	48.37	€	12.53
0.37	€	0.34	1.96	€	1.80
0.93	€	0.72	2.19	€	1.71

were up by 117,000 tonnes from end July but when comparing against August 2012, a drop of nearly 70,000 tonnes or just over 5% was recorded by Europulp. Some producers have announced price increases from 1 October, typically by 20 USD/tonne.

The Euro strengthened again, this time by 1.6% against the USD. FOEX's PIX NBSK pulp index moved up by 89 cents or by 0.10% and closed at 870.82 USD/tonne.

When converting this dollar-value into euro, the strengthening of the currency against the USD sent the benchmark down by 9.95 euro, or by 1.52%, with the PIX NBSKP index closing at 644.38 EUR/tonne.

BHK pulp Europe

Hardwood pulp market remains weaker than the softwood pulp market with lower capacity use and shipment-to-capacity ratios. In Europe, BHKP consumption was down in August by 23,000 tonnes (5%) against August 2012.

Consumer stocks, which were down in softwood, were up in BHKP by 10,000 tonnes, or just under 3%, compared to August 2012. In terms of the number of days of consumption, hardwood and softwood pulp stocks at consumers are both at 19 days.

The published delay of the Montes del Plata project and rumours of delays also in the other market BHKP projects will help the supply/demand balance in Q4 2013 and in Q1 2014. At least one Brazilian producer has announced a price increase to 800 USD/tonne for BEKP.

The Euro strengthened by 1.6% against the dollar from the previous week. Penalized by the euro strengthening, the PIX BHKP index value in euro retreated by 11.64 EUR, or by 1.99%, and closed at 572.97 EUR/tonne.

The PIX BHKP index value in USD retreated by 2.93 dollars/tonne, or by 0.38%, and settled at 774.31 USD/tonne with the price gap between NBSKP and BHKP (eucalyptus and birch) already exceeding 95 USD/tonne.

'We develop and innovate across the board... products, service, energy efficiency, machinery, organic growth'

Dominant private label, high energy costs, influential NGOs, an ageing population... Metsä Tissue outlines its way forward in a challenging German market. Tissue World editor Helen Morris meets Christoph Zeiler, Metsä Tissue's senior vice president, tissue, western Europe.

It isn't long after meeting the very friendly Christoph Zeiler at Metsä Tissue's Raubach mill in Rhineland-Palatinate that the free-flowing conversation – as his English is excellent - gets round to the 'elephant in the room.'

This elephant, unlike the cliché, isn't being ignored, far from it. We usher it in, give it a sugar cube and look it straight in the eye: the dominance of private label in the German market - a phenomenal 78% of tissue sales in 2012 compared to 45% in the UK and 20% in the US.

Across such a marketplace, providing a point of difference is vital and in many aspects the private label monopoly has obliged many tissue companies to look outside the box in terms of innovation and market strategy.

The mill houses two PMs as well as nine rewinders, converting 75,000tpy of AfH and consumer products. Metsä Tissue has three tissue mills in Germany with a total tissue capacity of 250,000tpy, with the other two mills producing products for the consumer and speciality napkin markets. Walking around the plant, Zeiler elaborates on how the private label market dominance means the business has to be a cost leader. "We develop and innovate, but for us innovation doesn't always mean product development," he says. "We look at machinery investment or energy efficiencies ... at the Raubach site for example, we are in the process of completing a paper machine upgrade with Toscotec that will clearly improve the site's energy efficiencies as well as increase our capacity."

He adds that energy consumption is one of the biggest


Metsä Tissue has three tissue mills in Germany; the Raubach mill produces mainly AfH products for German customers

issues the industry has in Germany. "These costs are critical to us and the whole of the tissue market and there is a high risk that energy costs will explode," he says. "We reduced our energy use company-wide by 20% between 2007 and 2012 and by 2020 we're aiming to improve our energy efficiencies by a further 10%. In this field of business energy issues are important to us both from cost structure and sustainable points of view. Even if we focus on developing our energy efficiency continuously, we'll need reasonable cost level energy also in the future."

The company is looking to grow organically in the European markets and Zeiler adds that this is challenging in a market that has seen a flat 1% growth over the past few years. Consumption in Germany is growing only very slightly, he says, but it is still growing, and this is one of the biggest issues for the business: "We have plenty of players in the German tissue market but demand is fairly flat. And again, this is especially the case where private label is so dominant."

It is vital that the industry looks to increase consumption such as introducing novelties that fit well into their customer's every day life. "Per capita consumption in European countries varies. For example, consumption in Switzerland and in the UK is higher, while in Poland consumption is a little bit over seven kilos per person per year. Consumption in Germany is above the average European level, but there's a clear possibility for growth in comparison with the UK and the USA."

"We are certainly looking at organic growth, this is a big focus for us and requires some investment." In Metsä Tissue's Krapkowice mill in Poland, the company recently finalised a €55m investment to build two paper machines, a new AfH product converting line as well as extending the converting and warehousing facilities. "It has made it more energy efficient too," he adds. "We want to grow above market growth there and in Germany, and innovation and organic growth are key to achieving that."

Growth will also take place through exports and the company is also doing some business into bordering countries as well as the UK, Ireland and as far south as Italy. "We want to produce as closely as possible to our customer base, because the further away we are the more expensive the product gets," Zeiler says.

Green investments continue to be a factor that boosts the German tissue industry and most companies and brands

'There are always challenges and there will be more to come. Today's are different from the last economic downturns.'

as well as private label manufacturers offer at least one green product. This year, the retail value share of recycled toilet paper is 8%, but its share of sales has fallen from the 10% it held five years ago. At the same time the recovered fibre availability has turned to clear decline due to media digitalisation. As sustainability is a leading issue, our understanding about the environmental footprints of different fibres is deep. It's a surprise for many that the recovered and virgin fibres are quite equal from their environmental point of view in tissue production."

However, economic concerns don't appear to have impacted German consumers' desire for sustainable products and green continues to be a way for the market to offer value. Zeiler says: "We have been one of the first having all kinds of environmental, energy and work safety related certifications but we need to keep going with innovations too in order to develop the business."

The German market, he says, is continually under pressure from campaigning NGO's. "They have significant influence over the retailers. Their pressure passes down to the retailers, it is the NGOs that are defining the name of the game in terms of products and sustainability. We've been dealing with this for many years and reacting. We can help to deliver safe products and we directly cooperate with the NGOs. It's getting more challenging and demanding but there are solutions."

Following the trends and the brands is one option, but he adds: "I hope the brands grow here because in turn they are helping the entire sector to grow. Brands have around 10/15% of the German market and it is very important to develop this. It is difficult to get new brands into this marketplace but as producers, this doesn't mean that private label producers are less innovative."

'In Germany, we don't just see the local economy, we see Europe as a total. We are moving towards a better direction.'

Is the current climate more severe than what he's experienced in the past? "There are always challenges and there will be more to come. Today's are different from the last economic downturns. In Germany, we don't just see the local economy, we see Europe as a total. We are moving towards a better direction. It is steady and developing away from the recession and towards calmer waters. But we remain with countries with weaker economies such as Greece... and that is a big challenge for us to develop."

The tissue market's product groups have also "not been so severely impacted on by the recession". "Tissue has done OK because it is needed on an every day basis here, regardless of the recession. AfH is one of the only tissue areas with a direct connection to the economy and it has been the one to suffer the most. But generally, tissue isn't recession sensitive."

Germany's rapidly ageing population and low birth rates have impacted on demand. "The ageing population here has an indirect impact on tissue. It's very important and means we have to finance a range of options. There are no simple solutions on the table and it is a big challenge. But the future is looking positive. There is room to grow and innovate but it's up to us to be active."

High quality and added value - at speed - are key at SCA's Neuss plant

Since the SCA purchase of G-P's European tissue business mill manager Bernd Bichbeimer has met the 'biggest challenge' of a rapid change from a focus on forestry to hygiene... and now he wants their tissue machine world speed record back.

Close to Dusseldorf, SCA's Neuss site is famous for its tissue machine world speed record

Impressively, SCA's Neuss site in Germany has held the world record for tissue machine speed for the past five years, running its Beloit TM at a fantastic 2,200m/min. Over the past year however, it has been knocked off the top spot. "There's a certain Turkish tissue manufacturer that this year has beaten us," mill manager Bernd Bichbeimer explains. "But we will come back! This is the only year for a good few years that we've not had the top spot."

Located at a 20 minute drive from Dusseldorf, the site produces 105,000tpy of consumer tissue from two paper machines, supplied by Valmet and Beloit. With 430 staff, the site is SCA's third largest out of its four German production sites. As with much of the SCA group, Neuss has seen a number of changes following SCA's purchase of G-P's European tissue business, as well as the sale of the company's packaging division.

"Moving from forestry to a much more hygiene-focused company is currently one of the biggest challenges for us," he adds. "Some 80% of our €9.8bn net sales in 2012 were from our hygiene sector... it's been a very fast paced change." In the consumer tissue business unit, SCA is the world's second biggest supplier and may soon be boosting its presence in the East further after putting in an offer to acquire a 51% stake in Chinese tissue producer Vinda. Is SCA's focus increasingly going eastwards? "We are increasingly looking to the Middle East, Africa, Asia and China. Demographically, people are getting wealthier. Incontinence cases in China for example are a big market for us," he says. However, Europe remains its largest market at 72%, with sales in Germany leading the way at €1.2bn and the UK market taking second place. "The G-P acquisition will strengthen our position in France and southern Europe as well as our brand portfolio," Bichbeimer says. "The acquisition included the G-P consumer tissue brand Lotus and the AfH tissue brand Lotus Professional. That's a big asset for us as we now have two competitive brands there. The purchase has helped us strengthen our footprint in Europe." He adds the market in Europe is very different from the East: "We need to bring products into the market here that add value, where there's a lot of innovation. We need to deliver very innovative and affordable products." Neuss is launching a lot of new products that are "high quality and add value, such as Tempo cotton touch. That's our main market strategy," he adds. Some 62% of SCA's tissue products produced are consumer tissue products that are sold in supermarkets, hypermarkets and convenience stores, while 38% is produced for the AfH market. "We're growing in the brands area, for AfH and consumer tissue." For its consumer brands, SCA is globally aiming at 50% brand business share to 50% retailer brand for its consumer

'We are increasingly looking to the Middle East, Africa, Asia and China. Demographically, people are getting wealthier.'

'The G-P acquisition has helped us strengthen our brand portfolio in France and our footprint in Europe.'

Neuss is the producer of Germany's hanky brand Tempo

Neuss staff with site manager Bernd Bichbeimer (fourth from right)

tissue brands. "We're investing in innovation so it's much easier for us than our competitors," Bichbeimer says. "The German tissue market has been enormously retailer brand-driven for a long time and brands are highly challenged." As for the retailers, he says it would be a surprise if they got any tougher with their requirements. "They want more sustainable products on the shelves, it's as simple as that," he says. "Sustainability is becoming more and more of a big topic."

SCA's forests cover some of the company's worldwide production pulp requirements: with an area of 2.6 million hectares – slightly larger than Wales – "we are the biggest private forest owners in Europe," he adds. "We need to be financially sustainable as well as environmentally. We are committed to reduce CO2 emissions by 20% by 2020 and we will also have wind power in our forests, and the production of wind power on SCA forests land will increase to 5TWh by 2020. Our water sustainability efforts will also reduce our water usage by 10% by 2015."

SCA are the only producers in Germany that can report

growth, Bichbeimer says. "The Tempo brand is playing a big part in that. The German consumer tissue market is seeing 1% volume growth and we're outperforming the market, both for the AfH and the consumer tissue market. Innovations and added value play a huge part in today's tissue market, they are the drivers for success." He adds that with the innovations and developments the company

'Retailers want more sustainable products on the shelves, it's as simple as that. Sustainability is becoming more and more of a big topic.'

and the site have introduced "we are keeping at a constant pace." "Productivity has increased by 7% per year. We are growing and we want to grow in all our sites that have paper capacity and finished capacity everywhere. We want to grow constantly and that's looking good for the next five years."

As for the world speed record. "We are certainly not defeated yet!" he beams.

FACTFILE - SCA Germany

Three business units – consumer tissue, AfH tissue and personal care

Production facilities – Mainz-Kostheim, Mannheim, Neuss and Witzenhausen

Brands – include TENA, Tork, Tempo, Zewa, Lotus Professional, Danke, TENA

Sectors – consumer tissue, AfH, personal care

Products – toilet paper, kitchen roll, paper handkerchiefs, facial tissue, napkins, cotton pads, personal care products

The US is big on tissue hand towels - but in Europe carry your own on a night out

As research leader at Datamonitor's Consumer branch, Amy Walker is based in Manchester, England, and goes for price and quality when buying tissue... wherever she is.

When deciding which tissue products to buy, my final decision is basically 50/50 cost and quality. I'm quite a lazy shopper; I want easy decisions made for me, but generally I have a tendency to just get the second cheapest. If I need something I'll get it, cost wouldn't put me off, but I'm unlikely to buy the most expensive in the category.

I buy loo roll, kitchen roll, anti-bacteria wipes for the kitchen and bathroom, paper napkins, insect repellent wipes and travel wipes for holidays. I use face wipes occasionally but more as a convenience as I don't think they're very good for your skin when you use them all the time. Some of these products are a necessity such as loo roll and kitchen roll, but the others I tend to buy for a specific reason (holidays, long car journeys, weekend away) and for convenience (e.g. kitchen wipes and bath room wipes).

I just recently got back to the UK from my honeymoon in America. When I was there I noticed that public toilets in bars, restaurants and tourist attractions tend to use a lot of tissue for hand drying. If there is a hand dryer it tends to be very new and high quality, with an explanation about why it's more environmentally friendly than tissue ... very different to the UK, where useless hand dryers are the norm.

When I lived in France and when I've visited other places in Europe on holiday I noticed it's a good idea to always carry tissues as public toilets don't usually provide toilet paper. I always buy tissue products from the shops, I don't think I've ever bought these types of products online. I am starting to buy much more personal care and pet care products online as they tend to be quite a bit cheaper, but am still buying paper products in the supermarket and at Boots and Superdrug, etc.

"I'm more likely to make a purchasing decision based on price and quality"

Unless animals are involved, I'm more likely to make a purchasing decision based on price and quality, so whether or not a product has green certifications doesn't especially figure in my decision. However, obviously if my preferred choice is environmentally friendly that's a bonus. If I think two products are exactly the same on price and quality and one has made a big deal of being environmentally friendly, I'd pick the latter. Essentially, I'm a lazy shopper. I want decisions made easy for me.

We get through an awful lot of paper towels at work. But for my hobbies, I don't tend to need to use tissue products that much. Maybe the odd travel/baby wipe, but it's very minimal. Having said that, I definitely use more wipes now that I did 5-10 years ago. They're pretty convenient.

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Holding the upper belt

Fis Impianti managing director Fabio Malnati talks to TW about the critical importance of good plastic film protection on jumbo rolls

Today, issues such as CRM responses, efficiency of choices and higher production flows mean that papermakers need to take two further steps: increase paper roll diameters to 3,000mm or higher as well as increase the softness parameter and decrease their weight.

Due to the increase of diameter size many mills produce and convert jumbo rolls directly in the same site without an external sell. After production on the TM, the importance of a good plastic film protection on the jumbo rolls is critical. Respecting product quality as well as reducing the damage from intermediate storage operations convinces many mills to invest in innovative systems to protect and handle their "soft giants" with care. Fire hazard risk reduction should also to be taken into consideration for the intermediate wrapping process.

'Due to the increase of diameter size many mills produce and convert jumbo rolls directly in the same site without an external sell.'

ELIMINATING STRESSES ON THE OUTER SURFACES OF JUMBO ROLLS

Jumbo tissue roll production necessitates that the rolls, because of their softness, are supported on reel spools during manufacture and handling. However, once the spool has been removed from the roll, the jumbo tissue rolls must be deposited onto a belt conveyor for transportation support and on to rollers for wrapping.

Rollers have been - and still are - successfully used with rolls of conventional stiff papers (the behaviour of which is shown in Fig 1). The peculiarities of conventional paper rolls rotation are:

Fig 1

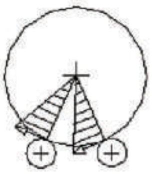


Fig 2

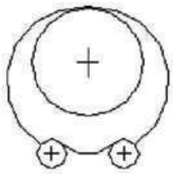


Fig 3

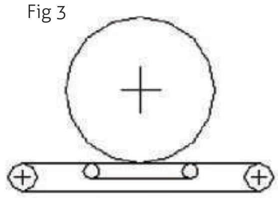
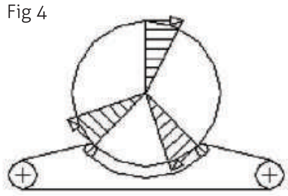


Fig 4



Rollers successfully used with rolls of conventional stiff papers (Fig 1); the soft cylindrical tissue roll body laid onto two cylindrical rollers (Fig 2); the new concept, processed and patented by FIS Impianti (Figs 3 and 4).

- the instantaneous centre is the same as the centre of the roll
- displacement and speeds of each point of the paper roll are perpendicular to its distance from the rotation axis and directly proportional to such a distance

The soft cylindrical tissue roll body (Fig 2) laid onto two cylindrical rollers contacts the rollers over a large area. The speed of the peripheral part of the soft roll on the contact area will be the same as the outer surface of the roller. The absolute value is constant but it is direct just as the tangent is to the roller; the direction continuously changes along the arc of contact. Therefore it is not possible to determine a constant centre position.

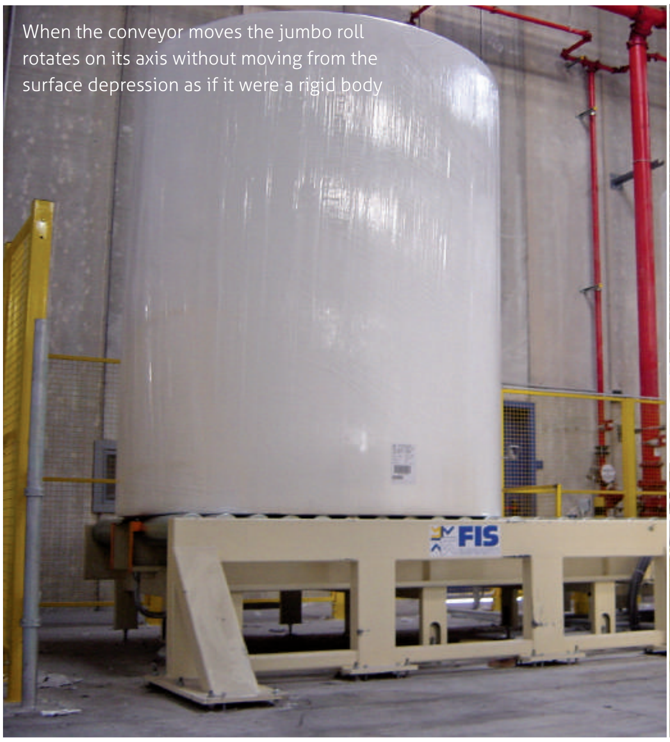
However, it is apparent that the soft tissue paper roll will rotate as a whole body. On careful observation, the tissue roll shows two clearly different area characteristics. The behaviour of the first area (the outer "cross hatched" in Fig 2) will be of a plastic "fluid" body, while the behaviour of the second area (the inner) will be of a plastic "stiff" body.

The plastic-fluid behaviour of the 'cross hatched' area of the roll (Fig 2) follows along tensile, compression and shearing stresses causing crumpling and tearing of the outer area resulting in irreversible damage. The new concept, processed and patented by FIS Impianti and clearly shown in Figures 3 and 4, overcomes these problems because of the predictable jumbo tissue roll rotation during wrapping by means of a special conveyor.

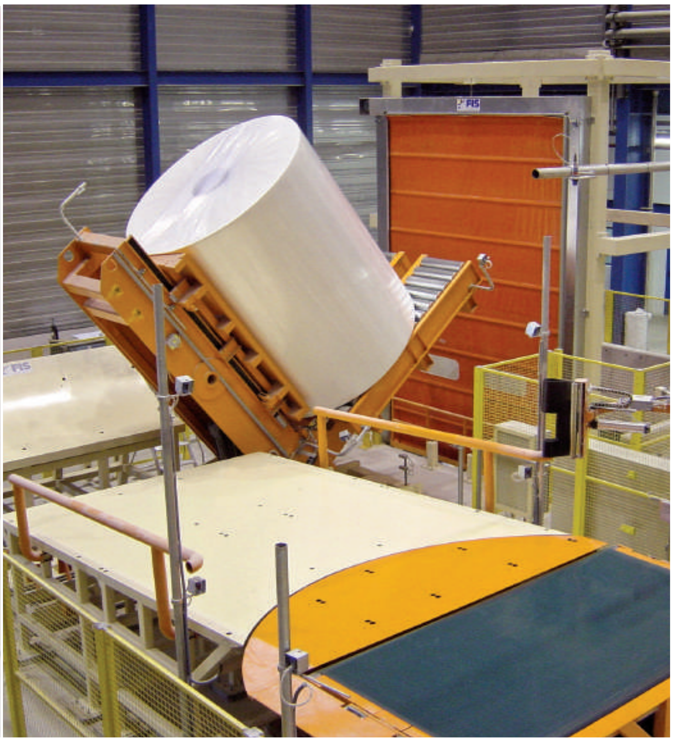
The new concept development carries out both the jumbo tissue roll translation through the wrapping machine and guides the same rotating on a well defined axis during wrapping cycle.

The central part of the conveyor structure, holding the upper belt, has been manufactured so that the different sectors adjust themselves into a circular shape that has the same diameter as the theoretical diameter of the jumbo tissue roll.

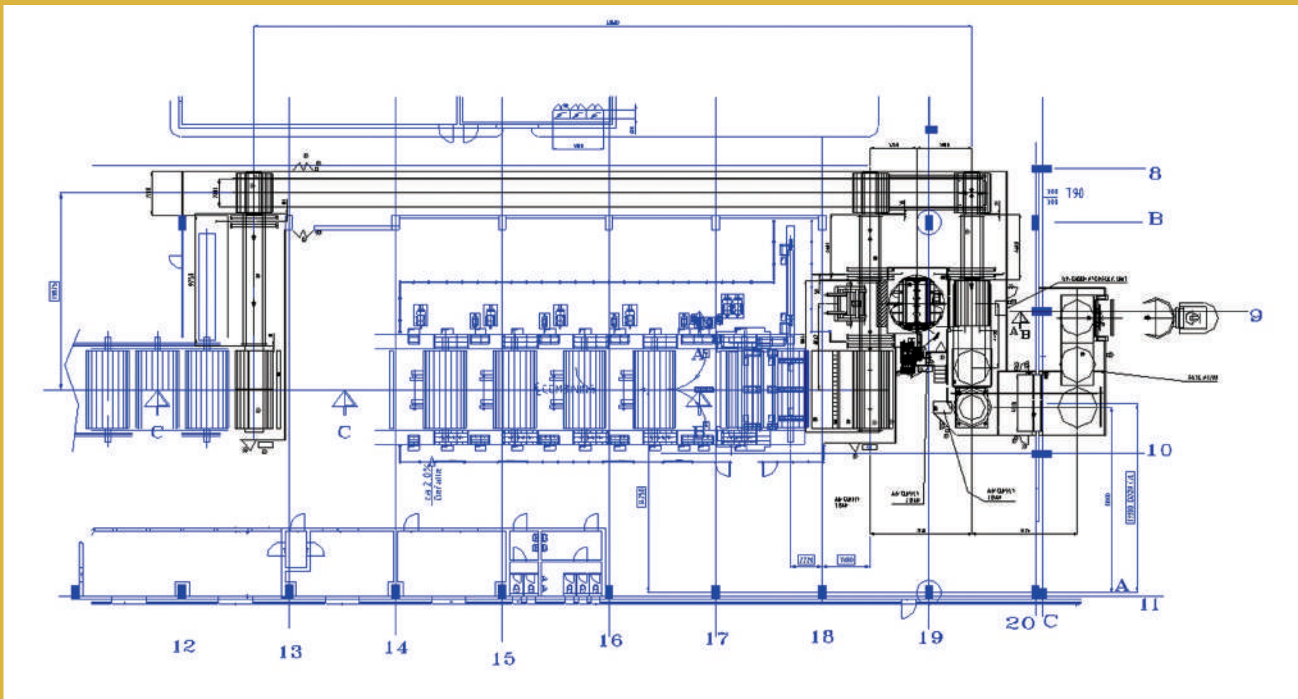
When the conveyor moves the jumbo roll rotates on its axis without moving from the surface depression as if it were a rigid body; and most important of all, it does so without suffering



When the conveyor moves the jumbo roll rotates on its axis without moving from the surface depression as if it were a rigid body



A CASE HISTORY: HAYAT AND TUL KAGIT



Layout showing typical rolls flow from paper machine and combing to warehouse

Two orders for complete wrapping and handling lines for jumbo tissue rolls in Turkey

Turkey is one of the fastest growing tissue markets in the world and two of its leading mills, Hayat and Tul Kagit, chose Fis for their new wrapping and handling production lines.

In 2011, both mills started up tissue machines that produced 60,000tpy of prime quality tissue. In 2005, Hayat installed a complete Fis line for its TM1, and it then repeated the order. For the new line Hayat chose a similar configuration for a wrapping machine and handling line; the only change was to replace the TM1 LGV system for mother rolls with traditional transfer shuttles with a belt conveyor from the shaft puller to the wrapping line. Additionally, Hayat ordered an automatic transfer system for the wrapping line to the new jumbo roll warehouse located 70m away.

Tul Kagit has recently entered the Turkish tissue market as a strong new player. It chose Fis to implement a system where the rolls are collected automatically from the TM as well as the combing line using a gentle touch belt conveyors and shuttle. Wrapping machine Axial 93 with rotating arm and belt is able to take care of extra soft roll and small grouped slices, while an Upender transfer conveyors and Automatic A4 labelling complete the scope of supply.

Tissue World Pro

COUNTRY	COMPANY MILL	INVESTMENT	PM NO	NEW/ REBUILD	START-UP DATE	CAPACITY CHANGE (tons/yr)	PM TRIM (m)
Argentina	Celulosa Campana	Buenos Aires	3	New	2014	100tpd	2.7
Argentina	Celulosa Argentina	NA	NA	New	2014	30,000	2.8
Argentina	Celulosa Campana	NA	1	Rebuild	2014	60tpy	2.9
Asia	Confidential	Confidential	4	New	2014	27,000	2.6
Australia	ABC Tissue	Brisbane, Qld	1	New	2013+	60,000	NA
Australia	Confidential	Confidential	NA	Rebuild	2013	135,000	2.7
Belarus	Muniks	NA	3	New	2013	14,200	2.5
Bolivia	Copelme	NA	3	New	2013	25,000	2.8
Brazil	Carta Goias	NA	NA	New	2013	36,000	2.7
Brazil	Carvalheira	NA	1	New	2013	1,500	2.8
Brazil	Confidential	NA	NA	New	2015	21,300	2.8
Brazil	Confidential	NA	2	New	2014	21,300	3.6
Brazil	Copapa	NA	NA	New	2014	NA	NA
Brazil	Indaial Papel e Embalagem	NA	NA	New	2014	28,400	2.8
Brazil	Melhoramentos (CMPC group)	NA	8	NA	2013	135tpd	3.3
Brazil	Mili	Tres Barras	7	New	2013	70,000	5.6
Brazil	Mili	Tres Barras	4	New	2013	70,000	2.8
Brazil	Mili	Tres Barras	6	New	2013	35,000	2.8
Brazil	OL Papeis	NA	2	New	2013	21,300	2.8
Brazil	Propaper	Taubate	1	New	2013	2,850	2.8
Brazil	Sepac	Mallet	5	New	2014	30,000	2.8
Brazil	Sepac	Mallet	4	NA	2013	30,000	2.8
Brazil	Tangara Papel		1	New	2014	1,100	3.6
Brazil	Vipasa	NA	1	New	2013	43,000	2.8
Confidential	Confidential	NA	1	New	2014	100tpd	2.7
Confidential	Confidential	NA	NA	Rebuild	2013	NA	2.8
Confidential	Confidential	NA	NA	New	2013	70,000	5.6
Confidential	Confidential	NA	NA	New	2013	25,000	2.8
Chile	CMPC Talagante	Talagante	2	Rebuild	2013	60,000	2.8
Chile	Forestal y Papelera Concepcion	Concepcion	1	New	2014	70,000	5.6
China	APRIL	NA	NA	New	2014	70,000	5.6
China	APRIL	NA	NA	New	2014	70,000	5.6
China	Bazhoumingxing Paper	Undisclosed	1	New	2013	12,000	2.8
China	Confidential	NA		New	NA	NA	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	NA		New	NA	250tpd	5.6
China	Confidential	Confidential	1	New	2013	14,000	2.8
China	Confidential	Confidential	2	New	2013	14,000	2.8
China	Confidential	Confidential	3	New	2013	14,000	2.8
China	Confidential	Confidential	4	New	2013	14,000	2.8
China	Confidential	Zhejiang	2	New	2014	27,000	3.4

By HELEN MORRIS, *Tissue World Editor*

ject Survey 2013

PM SPEED (m/min)	SUPPLIER	COMMENTS
1,700	Recard	To be erected.
1,800	Voith	VTM1 with shoe press
1,300	Recard	Rebuild into Crescent Former
1,700	Toscotec	AHEAD-1.5M Crescent Former
NA		Greenfield mill planned for export
1,700	PMP	Press section rebuild, new reel with sheet stabilising system
1,100	Hergen	Former and felt section – Crescent Former concept
1,300	Hergen	Press suction roll and machine capacity increase
2,000	Hergen	New complete crescent former machine
1,200	Hergen	Former and felt section – Crescent Former concept
1,250	Hergen	Complete tissue machine
1,200	Hergen	Complete tissue machine and stock preparation
NA	Hergen	Press suction roll
1,600	Hergen	Complete tissue machine
1,800	Recard	Started-up. Plant upgrade to increase speed
2,000	Voith	
1,600	Voith	NipcoFlex T shoe press rebuild
1,800	Voith	NipcoFlex T shoe press rebuild
1,300	Hergen	Complete tissue machine
850	Hergen	Ribbed Steel Yankee Dryer
2,000	Voith	VTM2 with shoe press
NA	Voith	VTM1. Started-up
1,100	Hergen	Ribbed Steel Yankee Dryer
1,400	Hergen	Ribbed Steel Yankee Dryer
1,800	Recard	Crescent Former
NA	Metso	Advantage DCT
2,200	Metso	Advantage DCT 200TS
1,600	Metso	Advantage DCT 100
1,600	Voith	ATMOS MP2, new calender and centre wind reel
2,000	Metso	Advantage NTT 200
2,000	Voith	VTM4 with shoe press
2,000	Voith	VTM4 with shoe press
770	Kawanoe Zoki	
2,200	A Celli	
2,200	A Celli	
2,000	A Celli	
2,200	A Celli	
2,000	A Celli	
220	A Celli	
2,000	A Celli	
1,000	Kawanoe Zoki	
1,000	Kawanoe Zoki	
1,000	Kawanoe Zoki	
1,000	Kawanoe Zoki	
1,500	Toscotec	AHEAD-1.5M Crescent Former

China dominates with 75 of the 151 announced tissue projects.

In the past 12 months, the global tissue industry has seen another substantial amount of new capacity announced or coming on stream.

Last year's Project Survey charted 114 projects, with China claiming 69 of them. This year however, details of some 151 projects have been revealed for 2013-2014, with China claiming half of them.

Research for this survey included asking machinery suppliers about their present and future developments, and the responses charts new capacity being added, ordered or in final planning stages in 2013-2014.

All the figures in the survey are based on the best information provided, and are subject to revision as, in many cases, information was not provided because it was deemed commercially sensitive or subject to financial uncertainty. It's also the case that a distinctive feature of this time in the cyclical development of tissue production is marked by the timely closure of old facilities to make way for the new.

Additionally, many projects have also been delayed, as in several cases the prospect of overcapacity begins to shape the market. Some of the 'new' capacity announced this year in fact includes some of last year's estimate.

A number of companies also issued projections for impressive tonnes per day figures, which will add, in the

China	Confidential	Zhejiang	1	New	2014	27,000	3.4
China	Confidential	Sichuan	1	New	2014	30,000	3.4
China	Confidential	Guangdong	8	New	2014	23,000	3.4
China	Confidential	Guangdong	7	New	2014	23,000	3.4
China	Confidential	Confidential	2	New	2013	23,000	2.7
China	Confidential	Confidential	1	New	2013	23,000	2.7
China	Confidential	Confidential	6	New	2013	23,000	2.7
China	Confidential	Confidential	5	New	2013	23,000	2.7
China	C&S Paper Co.	Chengdu	6	New	2013	33,000	3.6
China	C&S Paper Co.	Chengdu	5	New	2013	33,000	3.6
China	C&S Paper Co.	Chengdu, Sichuan	6	New	2013	33,000	3.6
China	C&S Paper Co.	Chengdu, Sichuan	5	New	2013	28,000	2.8
China	C&S Paper Co.	Tangshan City, Hebei	2	New	2013	25,000	2.7
China	C&S Paper Co.	Tangshan City, Hebei	1	New	2013	25,000	3.4
China	C&S Paper Co.	Luoding, Guangdong	1	New	2013	50,000	5.6
China	C&S Paper Co.	Luoding, Guangdong	2	New	2013	50,000	5.6
China	Fookwoo	Huizhou	NA	New	2013	112tpd	3.6
China	Ganzhou Hwagain	Ganzhou City, Jiangxi	2	New	2013	60,000	5.6
China	Hebei Yihoucheng	Baoding, Hebei	1	New	2013	25,000	2.8
China	Henan Hulijia Paper	Luiyo Country, Henan	3	New	2013	17,000	2.8
China	Henan Xusong Paper	Mancheng town, Hebei	1	New	2013	17,000	2.8
China	Hengan	confidential	13	NA	2013	70,000tpy	5.6
China	Hengan	confidential	14	NA	2013	70,000tpy	5.6
China	Hengan Changde	NA	18	New	2014	60,000	5.6
China	Hengan Chongqing	NA	24	New	2014	60,000	5.6
China	Hengan Chongqing	NA	23	New	2014	60,000	5.6
China	Hengan Wuha Paper Co	Wuhu, Anhui	19	New	2015	60,000	5.6
China	Hengan Wuha Paper Co	Wuhu, Anhui	20	New	2015	60,000	5.6
China	Lee & Man	NA	NA	New	2014	70,000	5.6
China	Shandong Dongshun Paper	Undisclosed	2	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	9	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	10	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	11	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	12	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	13	New	2013	14,000	2.8
China	Shandong Dongshun Paper	Undisclosed	14	New	2013	14,000	2.8
China	Shandong Hengan Paper Co	Weifang, Shandong	21	New	2014	60,000	5.6
China	Shandong Hengan Paper Co	Weifang, Shandong	22	New	2014	60,000	5.6
China	Sun Paper	Yanzhou, Shandong	28	New	2015	60,000	5.6
China	Sun Paper	Yanzhou, Shandong	27	New	2014	60,000	5.6
China	Vinda Paper	Shandong	1	New	2013	23,000	2.7
China	Vinda Paper	Shandong	2	New	2013	23,000tpy	2.7
China	Vinda Paper	Jiangmen, Guangdong	6	New	2013	23,500	2.7
China	Vinda Paper	Jiangmen, Guangdong	5	New	2013	23,000	2.7
China	Vinda Paper	Jiangmen, Guangdong	4	New	2013	19,500	2.7
China	Vinda Paper	Jiangmen, Guangdong	3	New	2013	19,500	2.7
China	Vinda Paper Wuhan	Wuhan, Hebei	4	New	2013	19,500	2.7
China	Vinda Paper Wuhan	Wuhan, Hebei	3	New	2013	19,500	2.7
China	Vinda Paper Wuhan	Wuhan, Hebei	2	New	2013	19,500	2.7
China	Vinda Paper Wuhan	Wuhan, Hebei	1	New	2013	19,500	2.7
China	Well Mind Paper	Chongquig	1	New	2013	120tpd	2.8
China	Yinge	confidential	1	NA	2013	70,000tpy	5.6
China	Yinge	confidential	2	NA	2013	70,000tpy	5.6
China	YFY	Yangzhou	7	New	2014	28,000	2.8

1,500	Toscotec	AHEAD-1.5M Crescent Former
1,500	Toscotec	AHEAD-1.5M Crescent Former
1,500	Toscotec	AHEAD-2.0M Crescent Former
1,500	Toscotec	AHEAD-2.0M Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,650	Toscotec	Ahead 1.5M Crescent Former
1,650	Toscotec	Ahead 1.5M Crescent Former
1,650	Toscotec	Ahead 1.5M Crescent Former
1700	Toscotec	Ahead 1.5m Crescent Former
1,800	Toscotec	Greenfield mill. Planning stage
1,300	Toscotec	AHEAD-1.5M Crescent Former
1,900	Andritz	PrimeLineST W8 (Steel Yankee)
1,900	Andritz	PrimeLineST W8 (Steel Yankee)
2000	A Celli	
2,000	Andritz	Integrated mill
1,600	Andritz	PrimeLine Compact II (Steel Yankee)
1,800	PMP	New Cresent Former Intelli-TissueTM 900 EcoEc machine
1,200	PMP	New Crescent Former Intelli-Tissue 900 EcoEc machine
2,000	Voith	VTM4. Started-up
2,000	Voith	VTM4. Started-up
2,000	Andritz	PrimeLineST W8 (Steel Yankee)
2,000	Andritz	PrimeLineST W8 (Steel Yankee)
2,000	Andritz	PrimeLineST W8 (Steel Yankee)
1,900	Metso	Advantage DCT 200
1,900	Metso	Advantage DCT 200
2,000	Voith	VTM4 with shoe press
900	Kawanoe Zoki	
900	Kawanoe Zoki	
900	Kawanoe Zoki	
900 Zoki	Kawanoe	
900	Kawanoe Zoki	
900	Kawanoe Zoki	
900	Kawanoe Zoki	
1,900	Metso	Advantage DCT 200
1,900	Metso	Advantage DCT 200
2,000	Andritz	PrimeLineST W8 (Steel Yankee)
2,000	Andritz	PrimeLineST W8 (Steel Yankee)
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1500	Toscotec	AHEAD-1.5S Crescent Former
1,500	Toscotec	AHEAD-1.5S Crescent Former
1250	Toscotec	AHEAD-1.5S Crescent Former
1,250	Toscotec	AHEAD-1.5S Crescent Former
1250	Toscotec	Modulo Crescent Former
1250	Toscotec	Modulo Crescent Former
1250	Toscotec	Modulo Crescent Former
1250	Toscotec	Modulo Crescent Former
2,000	A Celli	
1,900	Voith	VTM4 with shoe press. Started-up
1,900	Voith	VTM4 with shoe press.
1,600	PMP	New Crescent Former Intelli-Tissue 1500 machine

terms of the survey, unknown capacity.

Taking that into account, according to this year's graph it is expected that approximately 4.4m tonnes of tissue capacity has been announced, is planned for or will come on stream between 2013-2014.

In 2011, TW charted that approximately 3.4m tonnes of capacity would come on stream between 2011-2012, with approximately 1.7m tonnes of new annual capacity up and producing in 2012.

As with last year, the scale of these machines is also significant – a large proportion of these new start-up machines have widths of 5.6m.

Outside of China, more and more of this growth is increasingly focused on or from countries such as Brazil and Turkey.

> *'It is still clearly an uncertain market with a mixed picture of start-ups and closures across the world.'*

However, it is still clearly an uncertain market with a mixed picture of start-ups and closures across the world. Chinese overcapacity continues to provide much uncertainty to the industry. The Chinese nor the global market can absorb all of its planned capacity and additional closures can only slightly improve the situation. It remains to be seen how this will continue to impact the market's margins.

Worldwide, the recession continues to impact many parts of the sector, but despite this, the tissue sector remains largely in good health with global growth expected to continue along the

China	YFY	Yangzhou	8	New	2014	28,000	2.8
China	YFY	Ding Fung	1	New	2014	28,000	2.8
China	YFY	Ding Fung	2	New	2014	28,000	2.8
China	YunJing	Jingu, Yunnan	1	New	2014	30,000	2.8
China	Zhejiang Jingxing	Pinghu, Zhejiang	1	New	2014	25,000	2.8
China	Zhejiang Jingxing	Pinghu, Zhejiang	2	New	2015	25,000	2.8
Columbia	SCA Familia	Cajica	7	Rebuild	NA	45,000	3.6
EMEA	Confidential	NA	NA	New	2013	25,000	2.8
EMEA	Confidential	NA	NA	New	2013	25,000	2.8
Europe	Confidential	Confidential	1	Rebuild	2013	4,000	2.7
Europe	Confidential	Confidential	2	New	2014	25,000	2.8
Europe (Western)	Confidential	Confidential	NA	New	NA	35,000	2.8
France	Industrie Cartarie Tronchetti (ICT)	Montargis	2	New	NA	70,000	NA
France	Lucart France	Troyes	9	New	NA	35,000	2.7
Germany	SCA	Confidential	7				
Guatemala	Paperlera International (Kruger Group)	NA	5	NA	2014	125tpd	2.7
Indonesia	PT Suparma	Surabaya	9	New	2014	25,000	2.8
Italy	Carrara Group	Lucca	4	New	2013	120tpd	3.1
Italy	Cartiera Partenope	Napoli	1	Rebuild	2013	130tpd	3.2
Italy	Cartiera della Basilica	Lugliano	NA	New	2014	29,000	2.8
Japan	Confidential	NA	1	New	2014	25,000	2.2
Japan	Confidential	NA	2	New	2014	25,000	2.2
Japan	Ide Izumi	Shizuoka	2	New	2013	20,000	2.5
Japan	Ide Yodawara	Shizuoka	1	New	2013	20,000	3.3
Japan	Tsurumi Paper	Tokyo	2	Rebuild	2013	24,000	2.5
Japan	Tsurumi Paper	Tokyo	3	Rebuild	2013	20,000	2.7
Lithuania	Grigiskes	Vilnius	6	New	2014	35,000	2.8
MENA	Hayat Kimya	Confidential	1	New	2013	65,000	5.6
Mexico	Fabrica De Papel San Francisco	Mexicali	6	New	2013	30,000	2.6
Mexico	SCA Mexico	Confidential	NA	New	2014	30,000	3.6
Nigeria	Bel Papyrus	Lagos	3	New	2013	22,000	2.8
Poland	Confidential	NA	1	New	2015	17,750	2.8
Poland	Hanke Tissue	NA	4	Rebuild	2014	60tpd	2.8
Poland	Metsa Tissue	Krapkowice	7	Rebuild	NA	35.000	2.8
Poland	Metsa Tissue	Krapkowice	8	Rebuild	NA	35.000	2.8
Romania	SC Petrocart	SC Petrocart	1	New	2013	25,000	2.8
Russia	Hayat Kimya AS	Alabuga, Tartarstan	4	New	2014	70,000	5.6
Russia	LLC Pulp Invest	Kazan	NA	New	2013	25,000	2.8
Russia	SCA	Sovietsk	2	New	2014	215tpd	5.4
Russia	Syktyvkar Tissue Group	Semibratovo	3	New	2014	30,000	2.8
Russia	Wolma	NA	1	New	2013	21,300	3.1
Saudi Arabia	Saudi Paper	NA	1	Rebuild	2014	95tpd	2.7
South Korea	Ssangyong C&B	Jochiwon	6	New	2013	28,000	2.7
Taiwan	Confidential	Confidential	NA	Rebuild	2013	6,000	2.2
Thailand	WangPaper	Thaluang Lopburi	3	New	NA	NA	NA
Tunisia	Azur	NA	1	New	2013	70tpd	2.7
Turkey	Hayat Kimya	Mersin	5	New	2014	70,000	5.6
Turkey	Parteks Paper	Kayseri	2	New	2014	25,000	2.8
USA	Confidential	Confidential	NA	Rebuild	2014	NA	NA
USA	Empire Tissue	Solvay, NY	1	New	NA	72,000	NA
USA	First Quality	NA	5	New	2014	70,000	5.6
USA	Wausau Paper	Harrodsburg ,KY	3	Rebuild	NA	70,000	5.6

1,600	PMP	New Crescent Former Intelli-Tissue 1500 machine
1,600	PMP	New Crescent Former Intelli-Tissue 1500 machine
1,600	PMP	New Crescent Former Intelli-Tissue 1500 machine
1,800	Metso	Advantage DCT 100+
1,900	Andritz	PrimeLineST C8 (Steel Yankee)
1,900	Andritz	PrimeLineST C8 (Steel Yankee)
2,000	Voith	VTM3
1,600	Metso	Advantage DCT 100
1,600	Metso	Advantage DCT 100
1,700	Toscotec	Ahead Dry End
1,500	Toscotec	AHEAD-2.0S Crescent Former
2,000	Voith	VTM2
		Second PM planned
2000		Planning stage
	Voith	
1,800	Recard	Crescent Former. Under construction
1,600	Metso	Advantage DCT 100+
2,000	Recard	Crescent Former. In operation
1,500	Recard	Convert Recard-supplied machine into Cresent Former. In operation
1,500	Toscotec	MODULO PLUS Crescent Former
600	Kawanoe Zoki	Heavy weight towel
600	Kawanoe Zoki	Heavy weight towel
1,000	Kawanoe Zoki	DIP toilet tissue
1,000	Kawanoe Zoki	Pulp tissue
1,100	Kawanoe Zoki	DIP toilet tissue
900	Kawanoe Zoki	DIP toilet tissue
1,800	Toscotec	AHEAD-1.5S Crescent Former
2,000	Metso	Delayed
2,200	Metso	
2,000	Voith	
1,500	Toscotec	AHEAD-1.5S Crescent Former
1,100	Hergen	Complete tissue machine
1,500	Recard	Rebuild of plain wire machine into Crescent former
2,200	Voith	VTM2 with shoe press
2,200	Voith	VTM2 with shoe press
1,350	Toscotec	Modolo Crescent Former
2,000	Metso	Advantage DCT 200TS
1,600	Andritz	PrimeLine COMPACT II (Steel Yankee)
1,800	A Celli	
2,000	Metso	Advantage DCT 100HS
1,500	Hergen	Former and felt section – Crescent Former concept
1,700	Recard	Under construction. Twin wire, rebuild into Crescent Former
1,700	Toscotec	AHEAD-1.5S Crescent Former
1,200	PMP	Press section rebuild
NA	PMP	New Crescent Former Intelli-Tissue 900 machine
1,400	Recard	Crescent Former. In operation
2,200	Metso	Advantage DCT 200TS
1,500	Toscotec	MODULO PLUS Crescent Former
NA	PMP	New Intelli-Jet V Hydraulic Headbox
NA		Brownfield mill. Recycled paper. Planning stage
2,000	Voith	ATMOS VTM4
2,000	Voith	ATMOS

path of 4.1 to 4.3% seen over the past few years.

We expect to see new emerging economies continuing to step up the pace and respond to market demands for innovative and sustainable products across a range of sectors in the market.

TW Projects Survey in numbers:

151
Global tissue projects in 2013/2014

75
Chinese tissue projects in 2013/2014

114
Global tissue projects in 2012/2013

69
Chinese tissue projects in 2012/2013

CAUTION

All aggregates taken from the survey should be treated with some caution. While all care has been taken to publish comprehensive data, it is inevitable that projects will be missing or details incomplete. We welcome your help to ensure as comprehensive a survey as possible in 2014.

The key industry issues in a TW Special Report

As 2013 draws to a close, TW's Annual Review asks leading figures in the global tissue industry for their retrospectives on 2013 and predictions for 2014

Helen Gray de Castro: administradora at Portuguese tissue producer Fapajal - Fábrica de Papel do Tojal.

TW/1. How have the events of the past year impacted the global tissue industry?

HGC: "We have seen a number of political problems in some jumbo reel supplier countries (Turkey, Egypt) which have impacted supplies in Europe, making independent converters look for more reliable European sources. The economic crisis resulting in low demand and low margins throughout the more vulnerable southern European countries overcame a number of tissue paper suppliers, with the resulting stoppage of paper machines in the more vulnerable southern Europe countries – which has been one factor in redressing, possibly temporarily – the supply-demand imbalance."

TW/2. What are the key trends we will see in the next year?

HGC: "Possibly an increase in pulp prices, especially NBSK, but the large increase in capacity of BHKP in South America could well prove a stabilising factor in hardwood. However, some analysts also refer to sharply increased pulp prices. We will also see laminated products becoming mainstream, as well as the continuation of the trend towards ever-light papers, compensated by increased number of plies – which to my mind is the opposite of common sense, since production of higher grammages with fewer plies achieves the same result probably with lower cost both at the paper mill and at the converter. There will also be increasing energy and environmental costs, compounded by the need of southern European governments to increase taxes, which could contribute to further difficulties in the European tissue paper industry. We expect that growth in eastern Europe should surpass that of Europe as a whole."


Helen Gray de Castro, Fapajal

TW/3. Do you expect to see further consolidation in the industry?

HGC: "Not 100% sure here; there is an innate tendency to believe bigger is better."

TW/4. Are you more confident of the business environment than 12 months ago?

HGC: "Signs concerning the business environment are mixed, but we are certainly more confident in our own ability to survive and grow despite the economic problems."

TW/5. Will you be entering new markets? Where is your core country growth focus?

HGC: "We will probably be entering South American markets. Our core markets should remain the same, but we are prepared to go practically anywhere if transport costs prove acceptable."

Paul Watson, director of Canfor Pulp Innovation, Canfor Pulp

TW/1, PW: "As a supplier of premium NBSK to tissue manufacturers globally, we have, like all suppliers, keenly felt the challenges of the tissue industry in 2013 in terms of significant downward pricing and increasing discounts. Certainly the Chinese industry destocking largely determined global pulp pricing policies in 2013.

"In the background, further consolidation of the NBSK sector has occurred, high cost facilities are slowly being rationalised which will result in a tighter NBSK supply picture in the medium term."

TW/2, PW: "NBSK demand for premium tissue applications looks very healthy. As per capita consumption increases, quality demands in terms of strength and softness will also increase. Availability of FSC-certified fibre will continue to prove challenging. Greater understanding and acceptance of alternative forest certification systems such as PEFC and SFI, which are in many cases more rigorous and objective, may be required in order for tissue manufacturers to meet their sustainability objectives."

TW/3, PW: "The recent announcement by SCA and Vinda is certainly a portent of further activity in emerging markets. Of the majors, the slow growth of P&G continues to surprise. In terms of NBSK supply, further consolidation is always possible."

TW/4, PW: "Yes. We have completed an extensive recapitalisation of our mills and have also taken an unprecedented leadership position in pulp quality information on a per

Paul Watson, Canfor Pulp

shipment basis through our Mihari project which will further strengthen our competitive position. In terms of the markets, 2014 is anticipated to be more consistent for NBSK pricing which will add further pressure to high cost NBSK suppliers. Because of continued long term demand for high quality NBSK pulp, the increasingly constrained supply picture, and the growing demand for higher strength and softness products, we are extremely bullish on the future demand for high quality NBSK for tissue applications."

TW/5, PW: "We continue to grow globally and although transportation remains an important factor in certain areas, we are not currently constrained by market location. Rather than focusing on high volume or commodity end use markets, we target customers with a high technical fit value proposition. Although the emerging markets remain very attractive to most NBSK suppliers in terms of volume growth, we continue to target those customers requiring high tensile and high softness products."

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

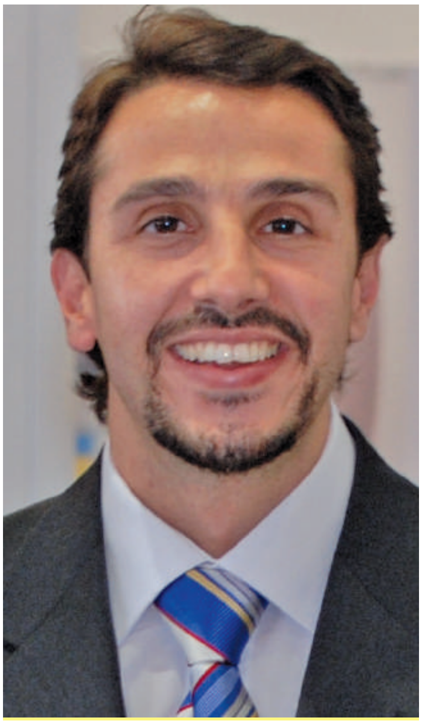
TW/1, RB: "Typically, the tissue industry didn't suffer too much from the global recession. The industry continued to grow at the same rate, 4.5%, even in regions where the recession was strong such as in western Europe and pushed by emerging tissue markets such as Latin America and China."

TW/2, RB: "We believe in a pursuit of technologies to decrease production costs and overcome raw material price increases. Tissue producers from mature regions such as the USA will continue to look for paper quality improvement as the end consumer and the supermarkets request it and the competition is getting tougher

> *'We pursue technologies to decrease production costs and overcome raw material price increases'*
>
> Voith's Rogério Berardi

because of newcomers producing premium tissue and the private label business profile. At the same time, they will look for technologies that deliver high paper quality with less environmental impact. In developing countries such as Brazil, the quality upgrade will continue to occur as the higher the consumption per capita, the higher the paper quality standards become."

TW/3, RB: "Further consolidation will happen and tissue producers will continue to grow in both developing



Rogério Berardi, Voith

and mature markets by installing new capacity and acquiring companies or establishing joint ventures with local producers."

TW/4, RB: "In general, we are optimistic for tissue as we have learned in the past that the tissue business is hardly dependent on the business environment and much less sensitive to economical cycles."

TW/5, RB: "We already have a strong presence in all important tissue markets worldwide so the goal is to continue investing to develop new technologies and be close to our customers around the globe.

"We have to look to all markets worldwide, which we have been doing. We will continue to support our customers in all tissue regions, mature and developing, with new high technologies and experienced team. Mature countries such as the USA and Germany will continue to be very important in our strategy together with countries like Brazil, Mexico, Russia, Poland, China, Turkey among others."

Davide Mainardi, sales and customer care director, Toscotec

TW/1, DM: "Luckily our industry hasn't significantly felt the global recession. There are still areas where tissue consumption is growing and investments are ongoing. It is clear that in some mature markets investments are strictly analysed and the decisional process is monitored for the longer term with great attention to the payback of the operation."

TW/2, DM: "Raw materials and energy will be the main drivers and factors of investments and the variation of the costs of these two elements will continue to dominate the decision of many projects. Some new projects have been put on hold due to the difficulty in justifying a regular payback period due to these two factors."

TW/3, DM: "The 4% increase in tissue production we have seen over a five year period has still to be considered, but as an 'average' value with some emerging markets ahead of the mature ones.

"We see that in Europe there will be an assessment of the market with the two major players (SCA and Sofidel) while worldwide SCA and APP will move forward. It seems that the 'big' traditional players in NA will be more concentrated in the local market or some of them in the growing South America one."

TW/4, DM: "In the last few years many projects that were in the pipeline have been impacted, and the effect of post-2009, when the decrease of pulp and energy costs created new revenues for the tissue producers, are clearly justifying the investments. Anyhow the numbers have to be read correctly, analysing that the booming of the investments is still affecting some BRIC countries (mainly Brazil, China, Russia), and especially the Asian and South America continents. Europe is still suffering the global economical crisis and the new assets

Marco Dell'Osso, director, external relations, marketing and communication, Futura

TW/1, MDO: "The tissue industry has been relatively resilient to global economic factors, but like most industries, tissue production is becoming more competitive, with consolidation partly responsible. Demand continues to grow, but so does capacity, and customers also have higher expectations in all regional markets and product sectors. With rising environmental demands and increasing raw material costs on one side and price pressure on the other, producers have no choice but to be more efficient and flexible."

TW/2, MDO: "Quality will continue to rise across the board. It is a race to the top in this respect, which is good for consumers. New advanced tissue making technologies have a key role to play here. As private label tissue reaches new highs, so the brands have to find new ways to defend their market share. The market will also see a continued growth of choice. The opportunity to differentiate tissue products has expanded considerably, and customers are demanding unique products, whether in terms

> *'Quality will continue to rise across the board.'*
>
> Marco Dell'Osso, Futura

of the recent acquisitions. North America has still to be viewed as a premium products market even if we see some opportunities for private label products and AfH (this product is also of high interest in Europe in the future).

"In any case our market vision is still positive even if we believe that a restructuring of the market of tissue machinery will occur in the next years due to the presence of too many players. Services and technological innovation will be the key factors to remain successfully in this market in a profitable way."

TW/5, DM: "We have now consolidated our presence in most of the continents where we can have business. Our recent re-structuring of the North America office is giving us good results. We believe we have done the right steps on time in the recent past to remain productive in the business. Our market has to be worldwide. We have now a structure that is covering the whole world."


Davide Mainardi, Toscotec

of embossing colours and patterns or packaging formats. This means converters need the flexibility to change product formats without incurring excessive down time."

TW/3, MDO: "Overall, consolidation is to some degree inevitable. However, when a big multinational player moves in and takes over a smaller domestic producer, it sometimes abandons certain aspects of the enterprise which are incompatible with its global strategy, and this can leave opportunities for local players. There is always room for independent businesses if they are flexible and responsive to local demand."

TW/4, MDO: "The forecasting data gives a positive message about demand, and greater capacity is required to keep pace. There are also plenty of manufacturing assets out there which need to be renewed or upgraded for the sake of competitiveness. So while we have had a busy year, we view the next 12 months with equal confidence. We are never complacent, however."

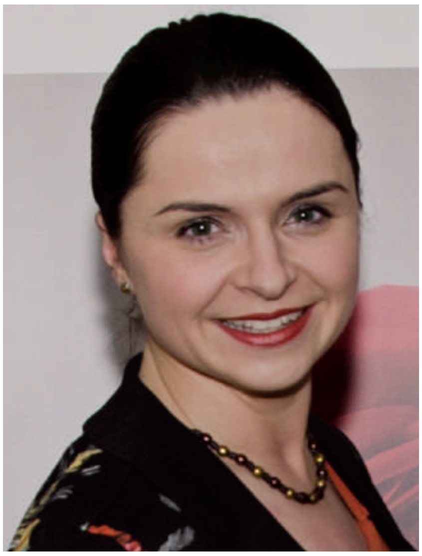
TW/5, MDO: "Our focus will remain on roll converting lines. In terms of geographic markets, we are already present in the main regions.

"For the next 12 months, the greatest proportion of our growth will come from the Americas, and Europe is also a strong market. We are looking closely at opportunities in new markets, especially emerging markets including Asia."

Marco Dell'Osso, Futura


Maja Mejsner, director business development and marketing, PMP Group

TW/1, MM: "Comparing forecasts released a decade ago and now show an increased interest in single width TMs. Investors prefer to choose products of smaller capacity to grow businesses step-by-step and maintain production flexibility. They are reserved to new technologies that indicate high business risk. The reason is simple – stable solutions and repeatable tissue quality are now key."



'Big players prefer to grow their business through consolidation rather than investing in new lines, especially in well developed markets.'

Maja Mejsner, PMP Group

TW/2, MM: "The tissue sector is relatively stable compared to other segments of P&P. The business environment requires long term planning and consequent action. Tissue producers will focus on optimisation of resources. Rebuild scenarios will get a bigger chunk of the total capacity growth worldwide. Focus on TMs' standardisation for production costs optimisation and flexibility increase will become more popular. Emerging markets will be pushing harder to make a technological step forward to chase well-developed places."

TW/3, MM: "The tissue sector is more corporation minded than the paper sector. Big players prefer to grow their business through consolidation rather than investing in new lines, especially in well-developed markets like North America or western Europe."

TW/4, MM: "We are growing steadily and we want to maintain the balance of our divisions. North American players are continuously optimising their fleet through rebuilds. Asia is still eager to invest reasonably."

TW/5, MM: "We are continuing our strategy of being active in Asia, Europe and NA, tailoring our offer to particular requirements. We still see a growth potential in markets where we are already established."

Marcelo M. S. dos Santos, Hergen application engineer

TW/1, MS: "The global crisis has not impacted the tissue industry as severely as it has other paper grades. Over the past two years we have taken part in a number of important bids here and abroad. The difference regarding this process is that almost all of them are based on energy efficiency and low natural resources consumption like water and gas. This trend will become more and more present in the tissue industry worldwide."

TW/2, MS: "There is concern that tissue projects feature concepts with low media consumption and better energy efficiency. The kW/ton is quickly becoming the more important variable for new projects, even more important than overall cost."

TW/3, MS: "This is difficult to say as the market behaves differently from region to region. While in Asia the big players are fighting for a growing market and installing new wider and faster machines, in Europe the situation is unknown with some groups shutting down some plants in order to keep only the more profitable mills, while others are installing new machine in countries from eastern Europe. In South America the situation has improved a lot and the competition level between the different players has increased with the installation of many new paper machines to attend to a more and more demanding final customer."

TW/4, MS: "Definitely. The fear brought by the world crisis is smaller than thought and many companies are now looking for new machines and for machine rebuilds in order to be more competitive in a market that is raising its quality standards day by day. Big tissue machine markets in areas such as Russia and former Soviet Union countries, South America and Asia (China mainly), are also developing."

TW/5, MS: "However, we are working hard to get into the European market which we believe is the toughest for tissue machine builders because of the level of competition. The players are already established and we need references to prove our quality and technology. Eastern Europe and Russia are one of the regions where the tissue business will increase in the coming years."

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Ingmar Andersson, vice president, sales, Asia, tissue mills business unit, paper business line, Metso

TW/1, IA: "We see no major impact, orders are placed in all continents but China is seeing delays and some projects are delayed for some time."

TW/2, IA: "More emphasis is put on the end product quality particularly in the more mature markets. Also private label/store brands now look for premium quality. "

> *'More emphasis is put on the end product quality particularly in the mature markets'*
>
> Ingmar Andersson, Metso

TW/3, IA: "There will be more consolidation. We had a time where this industry was more consolidated followed by the latest 10 years with many entrepreneurial/start-up companies breaking new grounds. Now some of these localised companies are being acquired by larger global tissue makers."

TW/4, IA: "The investment trend is remaining stable with the possible exception of China. There are other markets to level out the workload such that the available business volume can be maintained. China will probably adjust within the next year by shutting down obsolete capacity."

TW/5, IA: "We are active in all significant markets, however penetration in additional African countries might come sooner or later. While we are active in all continents, the Americas and Asia will be a focus."

Marcus Hellberg, Södra business area manager (tissue and board)

TW/1, MH: "Tissue demand is still linked to GDP – demand rises as GDP grows - but it doesn't necessarily shrink during a recession. The increased volume of market pulp (mainly previously-integrated and captive softwood) has had a bigger impact on business and competition. On the other hand we see a tight softwood market looking forward and recent stock figures back that up. There is very little new softwood capacity planned for the coming years, in contrast to the hardwood market where several major capacity additions are nearing completion.

"At the moment, it is not clear how the expanding hardwood pulp production will be absorbed by the market. Global tissue production is growing at 3.5% per year and forecast to continue at around 3.2%, adding five million tonnes to market pulp demand by 2017 compared with 2012. According to the PPPC, market pulp capacity is expected to grow faster than demand, at almost 2% per year, or an increase of close to six million tonnes by 2017, but most will be in hardwood (5.2 million tonnes). Inevitably this will mean lower operating rates for hardwood pulp of around 88%, a few percentage points below the historical average. In contrast, the softwood market will remain tight with operating rates in the mid 90s."

TW/2, MH: "Bigger players will make the globalisation of the softwood pulp market even more obvious.

"As more hardwood pulp comes on to the market, the price gap between softwood and hardwood is likely to increase so there will be more substitution of softwood in favour of hardwood. However, as demand for better pulp qualities also increases, this will mean that the softwood used will be increasingly important to impart properties such as strength."

> *'Bigger players will make the globalisation of the softwood pulp market even more obvious.'*
>
> Södra's Marcus Hellberg

TW/3, MH: "Yes, the biggest players will probably grow further, while some will exit production in specific European markets to varying degrees and focus on other markets which show greater potential for growth."

TW/4, MH: "Yes, definitely. The market is well balanced, we are planning investments focusing on both capacity expansion and quality improvements and are well prepared for future challenges."

TW/5, MH: "We are constantly evaluating different opportunities in other interesting markets, both in terms of geography and segment, but our main focus will still be to provide our existing accounts, mainly in Europe."

Rising at 5.30am for a 30 mile bike ride is Enrique Todd's perfect start to meet the 24/7 challenges of running a quality paper mill

Enrique Todd is the executive vice president of Roses Paper, a Sanford, Florida-based independent tissue manufacturer that originated in Mexico. Here, he explains his working day to TW.

"I start my day by getting up at 5:30am, having a cup of espresso and a protein shake, and then I go out for a 30 mile bike ride. Immediately after I shower while catching my breath and then review the morning's flash report from the mill, which details energy figures, raw materials consumption and any issue that will need immediate follow up with the production plan staff and our engineering department.

"My drive to the mill from my home is a short 15 minutes and I use it to become mentally prepared for the day ahead and the tasks waiting on my desk.

"My morning bicycle ride releases any stress and I remind myself how blessed I am to live and work in a great part of this country. I keep that in the back of my mind at all times so that no matter what challenges are ahead, this mentality enables me to endure any challenges that running a 24/7 operation making high quality paper grades and converted product brings on a daily basis.

"My main objective is to make sure we use our resources as efficiently and practically as possible to support each division. Converting and the mill both bring different challenges so prioritising resources in a small plant of 120 employees is the most important operation task of my day and this will help the teams in each division reach and achieve their goals and objectives. I also remind the staff of the bigger picture so they can make the necessary decisions during the course of the day.

"I typically walk the floor before getting in to my desk and I like to shake hands and ask our team members about their families; this is also how we remind our team members they are also part of the Roses Family. We chat briefly and discuss how we are doing, if we are making good quality products on a consistent basis while maintaining our productivity goals. I hope they feel recognised while having this level of discussion at all levels of employees.

"After my walk I get to my desk and review my schedule and reply to e-mails. I review our short and medium term plans and objectives and leave the long terms for a bi-weekly meeting. While all of this is happening, I typically get many calls from suppliers that want to discuss opportunities and also entertain customer's needs.

"When I look at the watch it is probably because it's time for lunch. We make an effort to step out and go for lunch to clear our head from all the overload of information and we try to go in groups and use the lunch venue to bounce ideas off each other.

"Back at the mill I typically have my last espresso of the day and continue with the task in front of my desk. I sign checks, approve expenses, and continue reviewing projects process. Where I get the most gratification is when I get to analyse all the data and bounce it off our projections. This keeps me engaged and it's like a bad habit you can't stop.

"Being a small company it feels as if we are a small spec in the vast ocean when compared to the rest of the industry, so we recognise our limited resources for R&D and make sure we partner with leading technology companies that can give us technical support and expertise in their fields. The experts enjoy coming to our plant and sharing their expertise with our engineering group. They don't get the treatment that the giants give them when visiting larger operation where they are told what they want. Here at Roses, they feel they have an opportunity to contribute and make suggestions and they get to see them, rather than being told what to do.

"I have many colleagues and friends in the industry, Andritz, Voith, Recard, Fomat, Metso to name a few, and some from other mills. When I find myself unsure of something I can pick up the phone and ask for advice. While most mills have tall walls to keep their privacy, behind those walls there is a unique breadth of professionals that are willing to share their knowledge if it helps someone out of a problem. It is similar to a brotherhood despite the colours of the uniform and we are always willing to share experiences. We used Tissue World exhibition to meet and share experiences with products and technology. We can't wait till March in Miami!

'My daily challenges continue to be to find new ways to increase efficiencies that can translate to productivity while reducing our cost.'

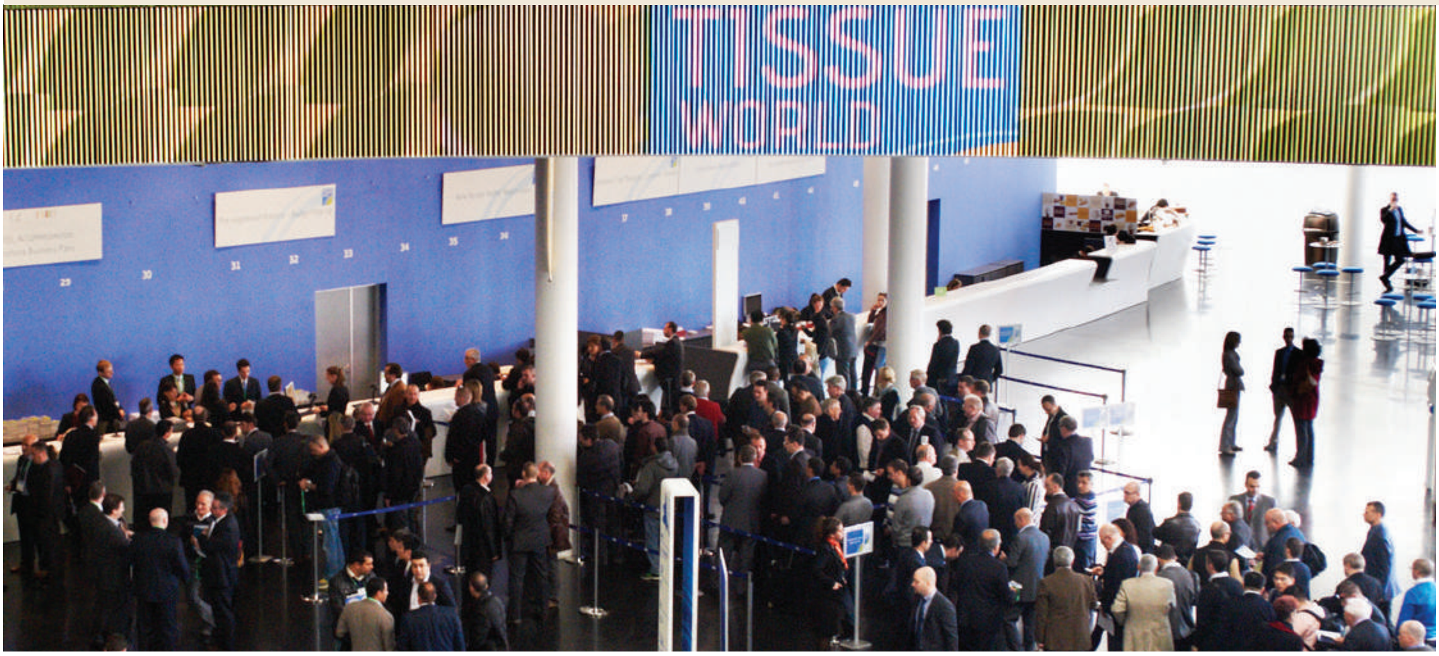
"My daily challenges continue to be to find new ways to increase efficiencies that can translate to productivity while reducing our cost. We try to see this as hand-in-hand with our sustainability objectives. We continue to work to make sure our practices are ethical and responsible for our environment. We want to leave a healthy company for the next generation to carry on with our founder's vision.

"The second biggest challenge for me is to work with my family on a daily basis for the last 20 years. At times when I need to confront them when we disagree on some subjects it's not an easy task. It's difficult to have a great relationship with your in-laws and brother-in-law, but much more difficult while working with them and keeping expectations.

"Our new plant located in Albuquerque, a beautiful area of land located in the Southwest of New Mexico, also known as "The Land of Enchantment", is a much larger facility but currently only has converting facilities. I can't wait to expand and integrate that plant. This is one of my long term goals.

"We use a lot of napkins at home and when customers visit our mill we typically take them to one of our many customers' restaurant outfits in the area to enjoy our lunch; supporting our customers is a great excuses to go out to lunch."

Event	Date	Location	Website
ISSA INTERCLEAN 2013	19 - 21 November 2013	Las Vegas, USA	www.issainterclean.com
PAPER ME 2013	28 - 30 November 2013	Cairo, Egypt	www.papermideast.com
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
ISSA INTERCLEAN 2014	6 - 9 May 2014	Amsterdam, Netherlands	www.issainterclean.com
CIDPEX 2014	14 - 16 May 2014	Sichuan, China	www.cnhpia.org
PLMA 2014	20 - 21 May 2014	Amsterdam, Netherlands	www.plmainternational.com
China Paper 2014	15 - 17 September 2014	Beijing, 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



By DAVID M. ROOT
industry consultant

'Designer' printing rises to the challenge

Paper towel print technology has achieved one of the fastest transformations to product quality in any market place. Flexographic printing industry consultant David M Root explains how to stay ahead of the game.

High-level (three- and four-colour) process printing on paper towel substrates continues to be the focus for many consumer tissue giants such as P&G, KC, SCA and GP supplying household paper towels worldwide. Significantly, this trend continues to develop, and we are now witnessing a growth spurt for the private label businesses that supply grocery store chains.

In the late 1990s print technologies in this special niche market quickly advanced replacing the simple one- and two-colour line printing. Prominent players in the tissue industry partnered with suppliers and moved the game forward. This was fueled by advancing flexographic print technologies that were used in the packaging arena and which provided insight and guided the development of towel print capabilities, both in-line and off-line. The use of CI Central Impression allowed for more precise registration, improved anilox roll technologies, chambered ink systems with more precise metering capability, in-line auto plate cleaning systems, improved imaging systems, ink formulations optimised and so on ... all of which provided a recipe for progress after several years of rubber stamp printing. What emerged was a very attractive "designer" print product attracting not only household consumers but also the prominent buyers and retailers such as Walmart, Target, Kroger, Publix, Lidl and Tesco.

RAPID DEVELOPMENT

Many converting-printing machinery manufacturers such as Perini, PCMC, Futura and Gambini have all risen to the challenge and continue to make advancements using such technology. This has enabled one of the fastest product improvement transformations in any market place. Today, we see only digital, servo's, gearless, multi-camera video defect detection systems and auto in-line plate cleaning systems allowing for two times the speed for cleaning and viewing. There has been a lot of development in a few short years to the extent that we are now witnessing speeds in excess of 900m/min (3,000fpm) on highly advanced off-line dedicated towel printers. Modern in-line units (unwind/print/laminator/embosser through to wrapped packages) run at speeds in excess of 1,800fpm (550m/min). And it is possible today to achieve outstanding print results using YCMK process printing technologies with an unlimited colour range. Presses are now capable of pinpoint registration (+/- 4mm (1/64inch). The transformation has been fairly steady and the cumulative print results have been considered outstanding.

NOT SO SIMPLE

However, rapid successions of gains do not come without significant growing and learning pains. Printing and the complexity of managing it, teaching it and sustaining a focused programme is not simple. Most of the companies involved are rich with talent with regard to paper technologies and converting excellence, but rarely do we find dedicated on-site print managers or the necessary technical resources within arm's reach. On the other hand, most (not all) companies have a corporate position or print platform involved in print technology, which includes sourcing and/or purchasing. The question that arises here is whether this is good enough to legitimately keep a print programme actively moving in the right direction? Does it allow for the necessary care with managing the assets (maintaining the print units in the toughest of environments), or nurturing new or veteran production staff who have limited knowledge with the

'What emerged was a very attractive "designer" print product attracting not only household consumers but also the prominent buyers and retailers such as Walmart, Target, Kroger, Publix, Lidl and Tesco.'

printing process? At times, the focus is more skewed towards productivity and tonnes of product off the line and less of a focus and attention to quality.

The level of desired print reproduction execution has opened an avenue for customer-supplier partnering, technology sharing and increased attention to educating and training the workforce, and all tied to the basic fundamentals within flexography. A common practice within the world of printing, ink, graphic suppliers and anilox roll suppliers typically offer education and information demonstrations with operators to help raise employee awareness and improved know-how. This is critically important to operating teams using a 4-colour printing process which is much more difficult to execute if the fundamentals and best practices are not in place. Compare this to the previous (simple line prints) era when towel/tissue converting plants had less of a need to focus on print execution and often considered it an 'in the way' process.

LET'S MOVE THE PROGRAMMES FORWARD

A lot of positive steps were achieved in a very short period of time. But there are more challenges that lie immediately ahead.

Assets: Many of the assets that were part of this initial move forward in the late 90s early 2000 period are in need of attention... rebuilds and printer tolerances brought back the original OEM specifications. Components need to be updated with retro packages to keep pace with industry improvements (chambers, video cameras, plate cleaning, etc).

Education/Training: Initiate a regimented training programme so the operating teams making it all happen have all of the necessary tools and fundamental understanding to help them accomplish the task of printing with knowledge and equally importantly... to be doing it properly. Many times staff take short cuts and in the end it haunts the team and the presses utilisation. This isn't unusual and we see this in many industry trades.

Resources: It is highly recommended to partner with the supply chain when it comes to ongoing education/training into the work force and staff managers. Never be afraid to solicit support. The more the staff are versed on the subject and encouraged to learn will be another part of how the teams will succeed in the short and longer term.

Hygiene and cleanliness: So vitally important with any process or programme but even more critical with this arena of printing paper towels, napkins or bath tissue. Free-floating fibre is everywhere and it must be cared for and managed, for the press, mechanics and tolerances but more importantly with respect to safety. There have been many instances within this industry and with printing when spontaneous fires have broken out. Have in plan daily and weekly clean-ups, blow downs and use a checklist to insure everything is managed effectively.

'This has enabled one of the fastest product improvement transformations in any market place.'

Maintenance: It is imperative to maintain the presses and specifically to keep the printer specs as close to the specifications and tolerances as when the printer was installed. This is a precision tool and with the tool you are printing some very involved and difficult graphics. Without regimented and detailed maintenance, the programme can and will suffer. Stay on top of this and the dividends and returns on the investment will be large in the long term.

JUST PRINT IT?

Or better said ... print it and be certain that you have all of the necessary tools and recipes in place to keep your print programme focused and advancing full steam ahead.

David M. Root is the sole owner of DMR SOLUTIONS. He has spent 30 years in the flexographic printing industry and specialises in the printing of paper towels, napkin and bath tissue, non-woven and poly.

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