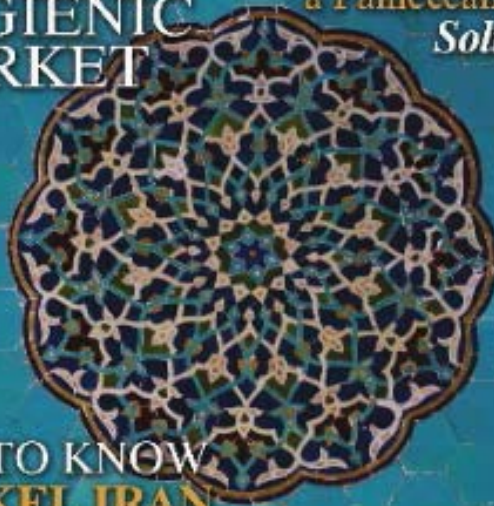


ME Tissue

Issue 33 • 2016

IRAN'S
ABSORBENT
HYGIENIC
MARKET

EASYLIFE™
a Fameccanica-Microsoft
Solution



GET TO KNOW
HENKEL IRAN

SOLENIS
Blueprint
for Success

PrimeService
The Key
to Lower Costs

**ECONOMIC
DEVELOPMENTS
AND OUTLOOK
IN IRAN**

B8-W Grey New life of flexibility



The new GDM solution to improve the flexibility of your baby diapers production with your needs in mind. Four production sizes with minimized changeover time and low operational cost, thanks to patented solutions with linear motion technology combined with E-cam applicator units and variable diameter die cutter stations.

B8-W Grey, smart manufacturing ready.



www.gdm-spa.com

GDM is part of Coesia, a group of innovation-based industrial and packaging solutions companies operating globally, headquartered in Bologna, Italy.
www.coesia.com





CONTROL

Now it's simpler to manage a complex plant, thanks to the original suite expressly created by Fameccanica and Microsoft.

EasyLife™ anticipates the future, combining cutting-edge applied manufacturing technology with the latest in digital innovation.

It creates a *company collaboration network* that facilitates the management of factories and manufacturing plants through the collection, exchange, distribution and use of ordered information.

Now it's easier to have everything under control, and get a very easy life.

JUBILEE EVENT: 10TH EDITION!

The World's Leading Exhibition for Paper, Film & Foil Converting

21 - 23 MARCH 2017
MUNICH TRADE FAIR CENTRE, GERMANY

ONLINE TICKETS AVAILABLE
FROM JANUARY 2017!


WWW.ICE-X.COM/EUROPE

**Technological innovations,
smart production solutions
and practical know-how**

- › Materials
- › Coating/Laminating
- › Drying/Curing
- › (Pre)Treatment
- › Accessories
- › Slitting/Rewinding
- › Flexographic/Rotogravure Printing
- › Finishing
- › Factory Management/Waste Disposal
- › Retrofits/Machine Upgrades
- › Toll Coating/Converting/Slitting
- › Control, Test & Measurement
- › Software
- › Services

ME Tissue

ISSUE 33
Oct/Nov/Dec 2016

- **Editorial Office**
METissue
P.O.Box: 45-134
Hazmieh – Lebanon
Tel: 961 3 590 529
E-mail: info@metissue.com
www.metissue.com
- **Editor- In-Chief**
Carol Dib
carol.dib@metissue.com
- **Assistant Editor**
Joy Jadam
joy.jadam@metissue.com
- **Advertisement enquiries**
marketing@metissue.com
- **Layout/Design**




Passion for tissue!

ME Tissue is licensed under the
number: 935/2007

CONTENTS

4	NEWS	
14	INNOVATION	14 - FAMECCANICA INTRODUCES EASYLIFE™ IN PARTNERSHIP WITH MICROSOFT
17	FOCUS ON IRAN	17 - IRAN IN THE WORLD TODAY 21 - IRAN'S ABSORBENT HYGIENIC MARKET 29 - HENKEL IRAN UP TO THE CHALLENGE!
35	SUCCESS STORY	35 - SOLENIS COMBINES A STARTUP MENTALITY WITH ESTABLISHED LEADERSHIP TO ENSURE CONSISTENT GROWTH AND MARKET STRENGTH
40	TECHNOLOGY	40 - PRIMESERVICE FOR TISSUE MACHINES: EXTENDING THE LIFECYCLE THE KEY TO LOWER COSTS

TURKEY

Amica Matrix Converting Line successfully starts up in Turkey at Forsa Kagit



From Left Reis Pazarlama - Mr. Tekin, FORSA - Mr.Y Han, PCMC - Mr. Santi, FORSA - Mr. B. Han, PCMC - Mr. Pullinger and PCMC/FORSA technicians

Amica Matrix line, for the production of consumer products, was recently started up at Forsa Kagit, Turkey.

The firmly rooted Matrix concept, developed by PCMC, is meeting consensus among producers who, to answer market demands, need to invest with high level technology that can easily adapt to the continuous changing and challenging market, in a quick and operator friendly environment.

Amica Matrix allows to increase speed and production cycles, following the company's growth and market changeover; a unique tailor made line to company specific requirements.

Forsa Kagit, present on the market since 2001, headquartered in Kocaeli and already well known for its industrial products, facial tissues and napkins, selected PCMC as a partner to expand its presence on the consumer products front.

"We met PCMC at Miac show in 2013," Basak HAN, Manager, tells us "and we immediately had a solid mutual understanding. PCMC is renowned worldwide

for their reliability and quality. Proof of this for us came after the installation of our new machine, and certainly the decision to enter this market together proved to be a winning choice."

Forsa's investment consists in an Amica Matrix line for the production of consumer rolls at a speed of up to 450 m/min, with an easy-change embosser, to easily interchange embossing rolls and thus facilitate product changes even for less experienced operators.

Forsa produces soft and attractive toilet rolls and kitchen towels thanks to PCMC's Amica Matrix technology, assuring consistently high quality production.

Basak continues: "Reis Pazarlama, PCMC representative in Turkey, helped us during the installation process of our new line. They were deeply involved in the process. We'd like to thank them for their support and attention"

"A unique company, great family driven environment and a fantastic experience to work together on the success of our project, as one team", Gino Santi, Sales Executive in PCMC.

TISSUE WORLD

Milan

TRADE SHOW & CONFERENCE

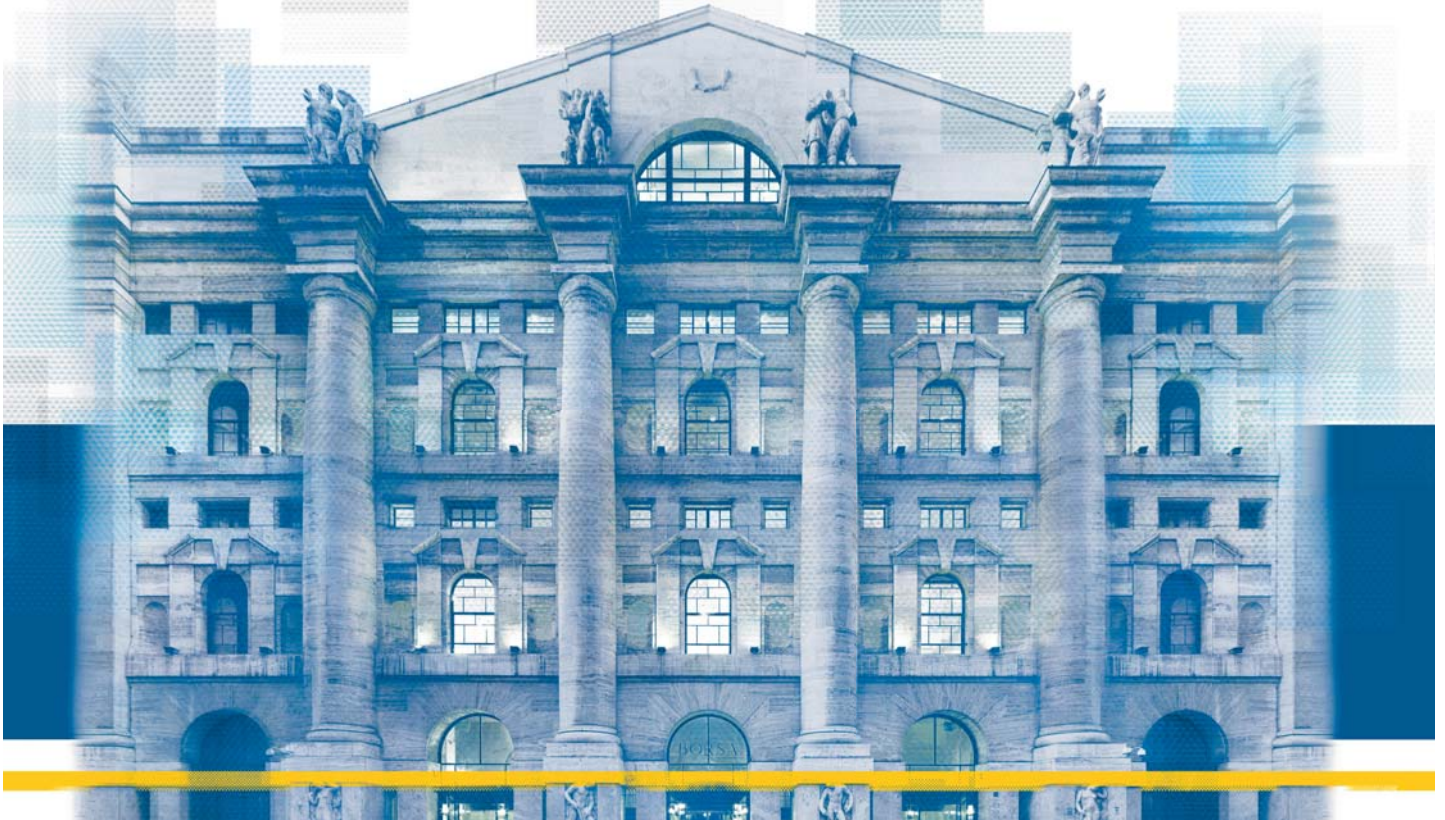
10-12 April 2017

Fieramilanocity Hall 3

Milan, Italy

www.tissueworld.com/Milan

Save the Dates



The world's largest trade show specifically dedicated to the tissue business.

The original **Tissue World**, which was launched in Nice, France in 1993, is the flagship event of the **Tissue World** series.

In 2017, the city of **Milan** will host **Tissue World** in April. Mark your calendar and get ready to join the 3,000 tissue professionals from around the world next year!

Portfolio

TISSUE WORLD

Organised by


UBM

Official Publication

TWM
TISSUE WORLD MAGAZINE

TO HAVE THE LATEST EVENT UPDATES OR TO REGISTER TO ATTEND, VISIT
www.tissueworld.com/register

TURKEY

A.Celli Group new branch facility in Istanbul

A Celli Group opened a new branch facility in Istanbul, Turkey. The new offices, which have been operational since the beginning of September, are a further confirmation of the strong desire by the A.Celli companies to broaden their sales and customer service network in the world. The new offices will be a reference point for sales and post-sales relationships in the region of western Asia. The opening of the subsidiary in the city of the Bosphorus is the result of the Group's consistent growth and joins the A.Celli global network that already includes China and the United States.

SOUTH AFRICA

Toscotec to rebuild PM1 tissue machine at Correll Tissue

Toscotec will rebuild Correll Tissue's PM1, in Durban, South Africa. The start-up of the rebuilt machine is scheduled for the second half of 2017.

Correll Tissue is the primary tissue paper manufacturing plant of Novus Holdings, one of the most technologically advanced print manufacturing operations in Africa. The plant, located in Phoenix Industrial Park, harnesses the potential of waste paper, produced by the extensive printing operations of the Group, to make domestic tissue paper. With the plant's sufficient converting capacity, investment in recycling processes has been made which sees a large quantity of the plant's water requirements being reprocessed.

The scope of supply will include a major rebuild of the existing fourdrinier tissue machine into a MODULO crescent former with a new TT Headbox-SLT. The delivery also includes a rebuilding of the existing approach flow system and the felt run, as well as the YD doctoring system.

Electrification and control system for the new parts, erection supervision, start-up assistance and training will complete the Toscotec's package. The new machine parts will be designed for a future speed of 1000 mpm with a reel width of 2460 mm.

Toscotec has previously supplied Correll Tissue with another key component: the TT SYD in 2006.

Twinsaver Group aims to become the largest tissue manufacturer in Sub-Saharan Africa



Twinsaver Group, the major manufacturer of tissue products in South Africa, will invest R500 million in a state-of-the-art new plant at its Kliprivier operations site in Gauteng, South Africa. The line, supplied by Toscotec, will start-up in the last quarter of 2017.

The turn-key delivery for the new TM5 will include a stock preparation system for virgin pulp, an AHEAD-2.0S tissue machine, tissue machine and plant auxiliaries, electrification & control systems. Full engineering, erection, erection supervision, training, start-up and commissioning complete Toscotec scope of supply.

The tissue machine will have a width of 2.75 m and will be designed for 2,000 mpm speed. The new line will produce, among the other grades, high-quality super-soft toilet tissue. The greenfield project will be focused on energy savings and low emission concepts with a great attention to the environment.

ITALY

New A.Celli rewinder for Sofidel

A Celli Paper has recently concluded an order for a latest-generation rewinder model E-WIND® with the Italian Group Sofidel. The new tissue rewinder model E-WIND®T200 commissioned to A.Celli Paper of Lucca will have a 5600-mm format and a working speed of 1600 mpm. The machine, highly evolved from the point of view of design and equipped with sophisticated technological innovations, will guarantee the Lucchese Group Sofidel the opportunity to work and handle structured webs. The rewinder is scheduled for delivery in May 2017, and will be installed in one of Sofidel's facilities in Europe.

Valmet to supply a rewinder to Roto-cart

The Italian tissue converting company Roto-cart Spa has selected Valmet as supplier for their new rewinder to be installed at the greenfield converting plant in Castelminio di Resana in Italy. The new site will be one of the biggest in the country.

The new installation includes a Valmet Focus Reelite 20 ENS Rewinder with two unwind stands. The machine is pre-disposed for the installation of an offset printer. The offset printer can be by-passed. In by-pass mode the rewinder has a design speed of 1,800 m/minute depending on the paper characteristics and winding spool diameter. With the offset printer in operation the design speed is 900 m/min.

The new rewinder is planned to be in operation during the first quarter of 2017.

Kemira improves production capacity at San Giorgio chemicals plant

Kemira has upgraded the San Giorgio site in Italy with state-of-the-art technology allowing for further business expansion in the south EMEA markets. The site produces polymers for different customer applications in pulp & paper, oil & gas, mining and water treatment.

PCMC Italia boosts capacity with new plant

On October 12th, 2016, PCMC Italia S.p.A., part of the US multinational Barry-Wehmiller, inaugurated its new 14,000-m² facilities in Fornaci di Barga.

Spurred by the corporate motto "People Care



Moves our Company", the inauguration ceremony was centred on the talents protagonists of PCMC's development throughout the years. An event dedicated to the about 500 people working in the company and their families, customers, guests coming from the world over, with a special focus on the young generations part of the PCMC family.

The premises will allow check-outs of 4 complete converting lines simultaneously, for a production capacity of 36 lines per year, together with a space for the administration, production and sales departments.

PCMC Italy registered a strong of a turnover that exceeds 50 million euro and an expected 60 million euro for 2017, this year, 20 complete converting lines were shipped around the world and more than 22 complete converting lines will be shipped in 2017.

Recard to supply a new tissue machine to Star Paper Mill

Recard signed a contract for the supply of a turnkey tissue plant to Star Paper Mill in Abu Dhabi, United Arab Emirates.

The machine will be equipped with a shoe press and its production capacity can reach 120 ton/day.

Star Paper Mill is a new established company in UAE and the plant will be located at the ICAD II, Musaffah Industrial Area.

SPAIN

Gomà-Camps boosts tissue production capacity

The family-owned company Gomà-Camps has commissioned Voith with the delivery of the new production line for its Ejea de los Caballeros location in Spain. The production line is designed to sustainably produce high-quality tissue paper.

The tissue machine is designed for an operating speed of 2,000 meter per minute and will annually produce 35,000 metric tons of high-quality toilet and towel paper from pulp with a working width of 2.8 meter. Start-up is scheduled for early 2018.

UKRAINE

New Yankee-Cylinder at Kyiv CPM was put into operation

After the successful rebuild, the 40,000 metric tpy PM1, started up on November 30, 2016, producing high quality tissue paper using recycled tissue. Installation of the new Yankee cylinder will increase production and significantly improve the quality of tissue paper produced by Kyiv CPM.

CHINA

GapCon Italy key components started up at Baoding Dayi Paper



GapCon Italy new EconFLOW™ hydraulic headbox and EconPRESSTM SPR suction press roll have been successfully installed and started-up for the final user Baoding Dayi Paper Co., Ltd. in Baoding City, Hebei province, China.

The above equipment has been applied on a new tissue machine, with reel trim 2.850 mm and maximum production speed 1.500 m/min, which was provided by the Chinese machinery manufacturer Shandong Xinhe Paper-making Engineering Co., Ltd. The new EconFLOW™ hydraulic headbox has a pond width 2.950 mm and EconPRESSTM SPR suction press roll is of diameter 1.200 mm.

The total GapCon Italy scope of supply includes also an another new EconFLOW™ hydraulic headbox and EconPRESSTM SPR suction press roll (same

dimensions, but opposite hand), for a twin tissue machine, and one EconPRESSTM SPR as spare for one machine.

Thanks to this successful cooperation with Shandong Xinhe, GapCon Italy strengthens his presence in the Chinese market and consolidates its brand.

Toscotec to supply two tissue machines to Hengan Group

Hengan Group has ordered two Toscotec's MODULO-PLUS ES tissue machines, to be installed at its Changji mill in Xinjiang Autonomous Region.

These MODULO-PLUS ES are the first two tissue machines supplied by Toscotec to Hengan Group. They have a production speed of 1,600 m/min and a net sheet width of 2.8 m.

Hengan Group has favored the advantages of Toscotec's well known TT DOES (Drying Optimization for Energy Saving) solution at the dry end, as well as the latest design at wet end including headbox, which ensures the highest drying capacity at the lowest energy cost for the mill, and the high quality finished product.

These two MODULO-PLUS ES machines are scheduled for start-up within 2017.

Valmet supplied tissue machine started up at Hengan

Hengan's 19th tissue machine, an Advantage DCT 200HS tissue line supplied by Valmet, successfully started up in August at the company's mill in Wuhu, Anhui province in China. The installation and commissioning were performed in record time and the start-up went very smoothly. The new 5.6-meter-wide tissue machine adds another 60,000 annual tons of tissue products to Hengan's current production of more than one million tons per year.

PM19 is Valmet's fifth tissue machine delivery to Hengan, it has a design speed of 2,000 m/min. The previous four Valmet Advantage DCT machines are located at Jinjiang, Changde and Weifang mills and were installed in 2006, 2007, 2009 and 2010. Currently the installation of a sixth Valmet delivered tissue machine PM 20 is ongoing.

The right tools, the right people

Service for tissue machines



“The right service helps to improve the efficiency of your tissue machine and keep maintenance costs to a minimum.”

Johannes Kraxner
Director Tissue Machine Service
ANDRITZ

ANDRITZ offers comprehensive service activities to maintain and upgrade your tissue mill. The service staff is skilled at raising the production efficiency of your mill or plant. They work closely with you to monitor, maintain,

repair, and upgrade your assets. Their expertise, from replacement parts to comprehensive maintenance programs, helps protect and extend the life of your equipment and lower your lifecycle costs. Full support, technically, mechanically,

and personally, is provided, regardless of who originally supplied the equipment. The right tools, the right people — do not hesitate to contact the ANDRITZ tissue service team: tissue-service@andritz.com

MALAYSIA

Kimberly Clark Products upgrades 1980s winder at the Kluang Johor Mill

A Celli Paper's Customer Service team installed and successfully concluded the upgrade performed on a tissue winder (combining winder AC820) from the 1980s with the startup of the machine.

The intervention, which entailed updating the machine's motorisation with a sectional drive transmission and the addition of a new axial unwinder, allowed the customer to immediately increment production at the same technical-operating conditions, substantially reducing energy consumption at the same time.

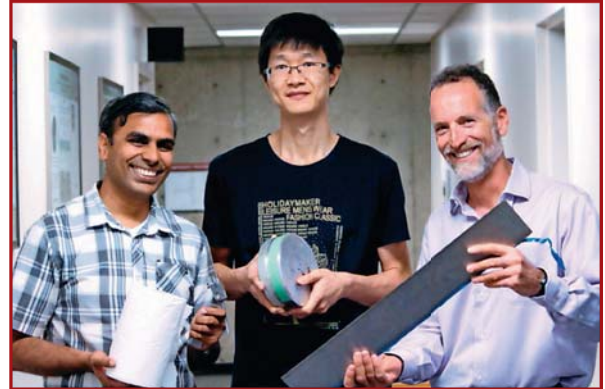
The new configuration kept into consideration the convenience of the operations to be performed on the one hand, and the needs of KCC Products Malaysia on the other, in order to obtain the best results in terms of efficiency in the shortest possible installation times, turning a thirty-year plant into a superbly operating and productive system.

CANADA

UBC researchers plumb the secrets of tissue paper

Canada's tissue manufacturers are now much closer to producing the perfect paper, thanks to new UBC research.

A team working with UBC mechanical engineering professors Sheldon Green and Srikanth Phani have



UBC mechanical engineering researchers Srikanth Phani, Kui Pan and Sheldon Green

created what is likely the first complete mathematical model of creping, the crinkling process that helps make tissue paper soft and resilient.

"The new model provides a significantly better understanding of the dynamics of the creping process, allowing manufacturers to tailor the process to a greater degree than before," said Green. "It's the most accurate model of creping to date."

During tissue manufacture, pulp is dried on a chemical-coated rotating drum until it's 95 per cent dry. It's then pushed off at very high speeds by a sharp creping blade, creating hundreds of microscopic folds that give tissue its softness, flexibility, tearing resistance and strength. "With our model, manufacturers can better manipulate the different elements—the chemicals, the pulp, the creping blade angle, the paper speed and so on—to produce the exact product grade they want, from standard grade toilet paper to ultra-premium bathroom rolls," said Green.

"Previous simulation models were static and didn't consider the velocity and impact of the dryer," said Kui Pan, the PhD student who led the mathematical analysis. The search for the ideal tissue paper is a top concern for the paper industry. Pan's supervisor, Srikanth Phani, believes their discovery can help paper firms in this quest. "Canada is a strong player in the billion-dollar global market for tissue products including bathroom rolls, facial tissues, and hygiene products. This new research can contribute to the growth of that industry," added Phani.

The UBC team worked with scientists from Canadian research organization FPInnovations. The project has received support from the Natural Sciences and Engineering Research Council (NSERC) and, more recently, from Kruger Products, Canada's leading tissue manufacturer, and creping chemicals manufacturer Solenis.

USA

Toscotec to rebuild dry-end section and redesign PM5 at ST Tissue's mill

Toscotec will supply ST Tissue in Franklin, Virginia, with the widest Steel Yankee ever to be manufactured TT SYD-12FT x 257" face width (6530 mm). ST Tissue PM5 machine will be converted to produce bathroom tissue and kitchen towel. Toscotec will rebuild the dry-end section and redesign the PM5 machine to convert it to dry crepe tissue.

The current paper machine configuration, consisting in a forming section, nip-press section, dryers section and Reel drum, will be converted to dry crepe tissue machine keeping the existing fourdrinier and redesigning the nip-press section to felt run arrangement which includes new Toscotec dry end equipment.

Sofidel to start up two new Valmet

Advantage NTT machines in Circleville

Sofidel has already eleven Valmet conventional tissue machine installed in various countries. Earlier this year Sofidel decided to invest in their first Advantage NTT line which will be started up at Delitissue mill in Poland in the second half of 2017. The new tissue machines will have a design speed of 1,800 m/min in textured mode and 2,000 m/min in plain mode. The production lines are optimized to save energy and fiber as well as add possibilities for product differentiation and increased capacity of premium quality products. Each line will have an annual production capacity of 70,000 tons.

Clearwater Paper to Close Oklahoma City tissue converting facility

Clearwater Paper Corporation will be closing its Oklahoma City converting facility and permanently shutdown two tissue machines at the company's Neenah, Wisconsin, tissue facility. Clearwater Paper intends to run its Oklahoma City facility until its permanent closure on March 31, 2017. All of the facility's 131 employees will be impacted. The facility converts large parent rolls of tissue into packaged products.

Also, as part of an overall facility optimization and restructuring plan, Clearwater Paper's Neenah location will permanently shut down two of the company's highest-cost tissue machines, affecting approximately 85 of the facility's approximate 400 employees and removing a total production capacity of 32,000 tons beginning December 31, 2016. Three remaining tissue machines will continue to manufacture an array of private label and away-from-home tissue products.

First Quality to Expand Tissue Manufacturing Capacity

First Quality Tissue announced a series of expansion initiatives for its manufacturing and distribution capabilities, as part of its long-term growth plan.

The expansion includes the construction of two new state-of-the-art machines. One will be located in the company's Anderson, South Carolina facility and is expected to be completed and begin production in the second half of 2018. The other will be located in the company's Lock Haven, Pennsylvania facility and is expected to be completed and begin production in the first half of 2019.

Von Drehle Corporation's First Advantage NTT tissue production line on stream

The von Drehle Corporation is the first tissue maker in the USA to produce tissue with Valmet's innovative Advantage NTT technology. The new line was started up at the company's mill in Natchez, Mississippi, USA.

This is Valmet's third tissue machine delivery to von Drehle. Since earlier von Drehle operates two Advantage DCT tissue lines in the Cordova mill, North Carolina in the USA. The Advantage NTT technology is designed for maximum production flexibility, energy efficiency as well as enhanced product quality.

The new tissue machine has a width of 2.6 m and a design speed of 2,000 m/min in plain mode and 1,800 m/min in textured mode. The raw material for the new line is recycled fiber and the production line is optimized to save energy and fiber as well as add possibilities for product differentiation and increased capacity of premium quality products.

Ashdown Mill begins fluff pulp production

A newly converted fluff pulp machine at Domtar's Ashdown Mill in Ashdown, Arkansas, has started production.

The conversion of a paper machine at the Ashdown Mill to produce Lighthouse Fluff Pulp is the largest capital project in the company's history, making Domtar the world's third-largest fluff pulp producer. The fluff pulp produced at the mill will be used to make baby diapers and incontinence products sold around the world.

This extensive construction project began in early 2015 with the demolition of one of the mill's paper machines. The mill then built a fluff pulp machine that could produce rolls and bales, depending on market demand. For nearly two years, hundreds of people — including local employees, contractors and employees from across Domtar — worked at the site.

The first fluff pulp rolls will come off the machine in November.

SCA to expand Bowling Green personal care plant

SCA will increase its production and product diversity in Bowling Green with a nearly \$24 million investment expected to create 20 jobs. SCA currently employs 140 workers at its Warren County location, which manufactures adult incontinence products under the Tena brand name. SCA plans to install a new production line that will increase production capacity, provide new products and improve its competitiveness.

MEXICO

SCA closes baby diaper business in Mexico

As part of SCA's work with addressing weak market positions that have inadequate profitability, the Group has decided to close its baby diaper business in Mexico.

Mexico is the Group's eighth largest market, based on sales in 2015, and is highly prioritized by SCA. SCA holds leading market positions in feminine care,

incontinence products and tissue in the country.

The total costs for the closure of the business are expected to amount to approximately SEK 170m and will be recognized as an item affecting comparability in the third quarter of 2016. Approximately SEK 20m of these costs are expected to impact cash flow. The baby diaper business in Mexico had net sales of approximately SEK 340m in 2015.

BRAZIL

ANDRITZ to supply a new tissue machine to Carta Fabril

ANDRITZ has received an order from Carta Fabril to supply a PrimeLineST W22 tissue machine with steel Yankee and steam-heated hood for its mill in Anápolis, Brazil. Start-up is scheduled for January 2019.

The PrimeDry Steel Yankee delivered by ANDRITZ has a diameter of 22 ft. The combination with the steam-heated hood enables efficient drying with substantial energy savings and safe operation. The steam-heated hood is equipped with an innovative automatic cleaning system and a dust removal system. The order also includes the complete stock preparation plant, which processes 100% short fiber (Eucalyptus).

The ANDRITZ tissue machine has a design speed of 2,100 m/min and a width of 5.55 m. It will use 100% renewable energy generated from biomass and converted into steam.



Looking forward to setting a world record: Carta Fabril and ANDRITZ.
Photo: ANDRITZ



Thank you

« It was a pleasure for us to stay on the Paper Middle East Show 2016. We would like to say thank you to all visitors, customers and friends who visited our stand during the exhibition. »



ALGAS MICROFILTERS are today being used instead of or to supplement traditional water and effluent treatment methods in paper mills and industrial industries

world-wide.

Their compact design and flexibility of operation provides a better method of treatment helping mills world-wide meet the need to conserve raw materials, chemicals and save fresh water by treating process water, and thereby reducing pollution.

- Fibre recovery
- Re-use of water in place of fresh water
- Polishing water after existing savealls to enable re-use
- Recovering water & fibre from screw and belt presses
- Primary effluent treatment
- Polishing before Bio and after secondary Bio treatment before final discharge



Hergen is a Brazilian company that manufactures machines to the paper industry since 1975. During this 40 years we have developed many equipment and are always updated to the most modern technology used in this sector. We act in the Tissue,

Cardboard and Special papers markets, building new equipment or modernising existing ones, to South and Central America, North America, Europe and Asia. Our new target markets today are Middle East and Africa. Our main equipment is:

- Crescent former machines (Smart, Evo and Avantis lines)
- Yankee Cylinders (up to 24 ft)
- Forming Sections
- Please check our website (www.hergen.com.br) to see the full list, or contact Mrs. Yasmin Grundmann, Grundmann@skynet.be
- Headboxes
- Press Sections
- Drying Cylinders



Röchling Leripa is your Complete Supplier Offering Top Quality for Wear Parts for the Paper Industry

- Suction Roll Sealing Systems ● Coating Rods and Beds
- Headbox Vanes ● Cleaner Cones
- Doctor Blades ● Dewatering Elements and Components like
- Plastic covers from UHMW-PE ● Ceramic covers
- Stainless Steel Boxes ● Service Team and Maintenance



Cellwood Machinery develops, manufactures and systems for the pulp and paper industry and also for pretreatment of organic waste.

We are known for our brand products Krima,

Grubbens and Algas. Cellwood Machinery's head office is located in Nässjö, Sweden where we also have our Research & Technology Centre, RTC. We also have offices in Shanghai, China and Toronto, Canada and we are represented all over the world by agents or our own personnel.



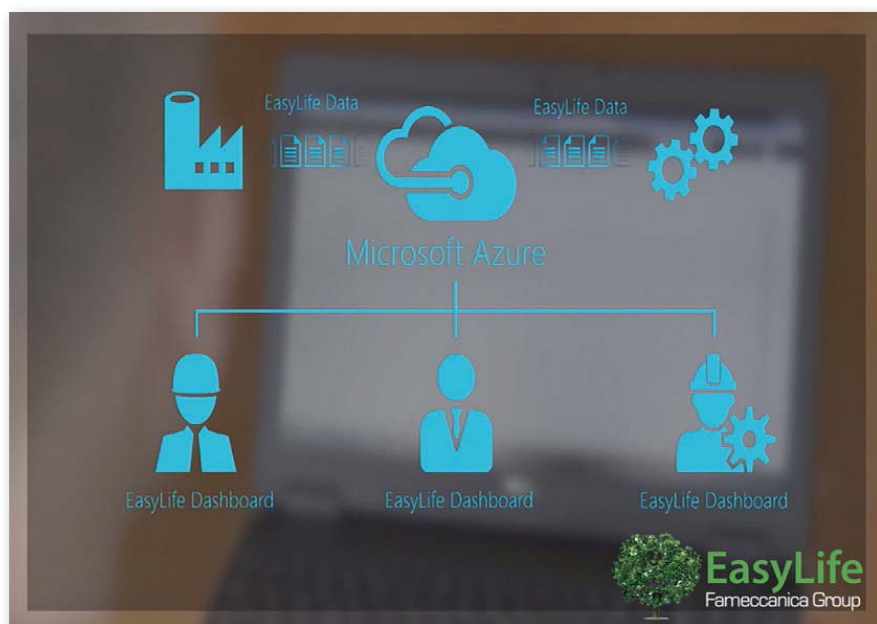
Villforth Siebtechnik GmbH is a family owned traditional supplier for the pulp and paper industry. We are located in Reutlingen, South Germany since 1870. We are focussed on :

- Forming fabrics ● Trouble shooting
- Wires for all dewatering purposes
- Roll covers (shrink sleeves)
- Wires for the stock preparation

If you need further informations, please contact :

www.algas.de - www.cellwood.se - www.leripa.com
www.hergen.com.br - www.villforth.com

Fameccanica Introduces EASYLIFE™ In Partnership with Microsoft



A MODERN SOLUTION DEVELOPED BY TWO LEADERS IN TECHNOLOGY

From 500 to over 1000 diapers per minute. Fameccanica, the worldwide leader in the design and construction of automatic lines for the production of disposable sanitary products, has more than doubled the production capacity of its machines. Development does not only cover speed; the last generation of machines allow the Italian company to trace the whole production process, spot and solve any flaws, simplify the management and maintenance.

All this is made possible thanks to EASYLIFE™: Fameccanica now anticipates the future by offering its customers an innovative solution developed in collaboration with Microsoft.

Easylife™ is a company collaboration network simplifying the management of manufacturing plants through the collection, exchange, distribution and use of ordered information. Each customer has proprietary access to the data, allowing to define specific dynamics, hierarchies, and data display modes.

Maintenance is also simplified: interventions can be planned in advance, using precise and detailed information collected over each machine life cycle.

Easylife™ is designed to make life easier for customers: it is a full and efficient suite, developed by Fameccanica and Microsoft to radically improve the manufacturing facilities management.



THE PURPOSE OF EASYLIFE™ IS TO SIMPLIFY FAMECCANICA CUSTOMERS' LIFE THROUGH ACCESS TO THE MACHINERY INFORMATION AT DIFFERENT LEVELS

All key information is integrated in Easylife™, from process control, to maintenance, to equipment performance and up to the whole plant performance. Easylife™ is a platform in evolution that Fameccanica will keep developing, gradually offering apps upgrades to its customers.

1. Easylife™ is safe, Microsoft experience guarantees protection of all customers' information

Data protection is guaranteed, safety protocols are the same adopted for internet banking and other websites managing sensitive data. All data are collected in Microsoft cloud Azure, and all accesses to the data storage are formally and hierarchically assigned within the customers' organizations according to their rules. Fameccanica accesses follow the same principles, as well.

2. Easylife™ is easy to use, accessible everywhere and from any device, and requires no substantial hardware investments

When you're away from your office and you need to access the information regarding the performance of your company equipment, you just have to connect with your laptop or any other mobile device. Furthermore, if you need troubleshooting and want the support of a Fameccanica expert, the immediate access to real historical data allow a professional diagnosis of the problem.

3. Easylife™ is cross-functional within the organization

Easylife™ is a Business Social Network. This means that all company functions can benefit from its use, from the top manager to the maintenance expert, from the operator to the spare parts purchaser and whoever needs access to the machine functioning data.

Easylife™ provides a platform for the exchange of information and communication, aiming at identifying and understanding problems (e.g. data analysis for correct diagnosis) and solving them, by raising an intervention ticket with Fameccanica, for troubleshooting support.

INNOVATION





11.12.13

OCTOBER 2017

LUCCA - ITALY

MIA@

International Exhibition of Paper Industry

2017

MACHINERY, PLANTS AND
EQUIPMENT FOR THE
PRODUCTION AND CONVERTING
OF PAPER AND PAPERBOARD

24th
EDITION

www.miac.info

Iran

in the World Today

Iran is the second largest economy in the Middle East and North Africa (MENA) region after Saudi Arabia, with an estimated Gross Domestic Product (GDP) in 2015 of US\$393.7 billion. It also has the second largest population of the region after Egypt, with an estimated 78.8 million people in 2015. Iran's economy is characterized by the hydrocarbon sector, agriculture and services sectors, and a noticeable state presence in manufacturing and financial services. Iran ranks second in the world in natural gas reserves and fourth in proven crude oil reserves. Economic activity and government revenues still depend to a large extent on oil revenues and therefore remain volatile.

GOVERNMENT OF IRAN'S VISION FOR THE FUTURE AND ITS REFORM AGENDA

Iranian authorities have adopted a comprehensive strategy encompassing market-based reforms as reflected in the government's 20-year vision document and the sixth five-year development plan for the 2016-2021 period. The plan is comprised of three pillars, namely, the development of a resilient economy, progress in science and technology, and the promotion of cultural excellence. On the economic front, the development plan envisages an annual economic growth rate of 8 percent and reforms of state-owned enterprises, the financial and banking sector, and the allocation and management of oil revenues among the main priorities of the government during the five-year period.

The Iranian government has implemented major reforms of its subsidy program on key staples such as petroleum products, water, electricity and bread, which has resulted in a moderate improvement in the efficiency of expenditures and economic activities. The overall indirect subsidies, which were estimated to be equivalent to 27 percent of GDP in 2007/2008 (approximately US\$77.2 billion), have been replaced by a direct cash transfer program to Iranian households. Domestic fuel prices have risen in parallel, thereby contributing toward reducing the deficit of the Targeted Subsidies Organization (TSO) (estimated at -0.3 percent of GDP in 2015). A second phase of subsidy reform is being considered which would involve a more gradual fuel price adjustment than previously envisaged and the greater targeting of cash transfers to low-income households.

RECENT ECONOMIC DEVELOPMENTS

Following the economic recovery experienced in 2014¹, the Iranian economy is estimated to have advanced at an annual growth rate of only 0.5 percent during the 2015 Iranian calendar year² (i.e., March 21, 2015-March 20, 2016). This performance came in spite of the signing of the Joint Comprehensive Plan of Action (JCPOA) in July 2016 and the significant economic prospects it offered. Inflationary pressures on the economy continued to abate under the less accommodative monetary policy stance, with the Consumer Price Index falling to 12.6 percent per annum in January 2016, from a peak of 45.1 percent in October 2012. Despite this positive development, the fiscal balance of the central government deteriorated due to low oil prices, from a deficit of 1.2 percent of GDP in 2014 to a deficit of 2.7 percent of GDP in 2015. Similarly, Iran's current account surplus is estimated to have deteriorated from a surplus of 3.8 percent of GDP in 2014 to a surplus of 0.6 percent of GDP in 2015 due to the fall in oil exports.

Stimulating private sector growth and job creation is a continued focus for the government considering the number of workers who should enter the labor market in the coming years, including women and youth and the persistently high unemployment rate (11.7 percent). Tackling youth unemployment in particular is a pressing policy issue in line with the evolving demographic profile of the country, which is characterized by more than 60 percent of its population estimated to be under the age of 30 in 2013.

1. POVERTY CONDITIONS

Poverty is estimated to have fallen from 15 percent to 9 percent between 2009 and 2013, based on a US\$5.5 a day line in 2011 PPP (Iran has no official poverty line). This was likely due to the implementation of a universal cash transfer program in late 2010, which preceded the elimination of subsidies on energy and bread. The cash transfer program appears to have more than compensated for the likely increase in

energy expenditures of less-well-off households thus contributing to positive consumption growth for the bottom 40 percent of the population. However, the recession years took their toll, with overall consumption growth between 2009 and 2013 being negative.

2. ECONOMIC OUTLOOK

The January 2016 lifting of the nuclear-related sanctions will provide a short-term boost to Iran's economy. For the recovery to be sustained, longstanding structural reforms are needed. Due to the lifting of the sanctions and a more business-oriented environment, real GDP growth is projected to reach 4.3 percent and 4.8 percent in 2016 and 2017, respectively. On the production side, growth will be mainly driven by higher hydrocarbon production. On the expenditure side, consumption, investment and exports are expected to be the main drivers. Notwithstanding the narrowing of the output gap over the coming years, inflation is forecast to remain moderate, by Iran's standard.

The lifting of sanctions, and in particular the positive impact this will have on the banking system, will significantly reduce international transaction costs. Strong capital inflows, including FDI and the repatriation of part of the frozen assets, could put upward pressure on the Iranian Rial which will help contain imported inflation. Fiscal policy, is projected to be slightly contractionary with the deficit projected to narrow to 1.8 and 1 percent in 2016 and 2017, respectively, mostly on account of improved oil revenues. Iran's current account position is expected to turn into a surplus in 2017, also primarily driven by rising oil exports. ■

“Real GDP growth is projected to reach 4.3 percent and 4.8 percent in 2016 and 2017”

The World Bank Group authorizes the use of this material subject to the terms and conditions on its website, <http://www.worldbank.org/terms>.

The World Bank Group has no lending program in Iran at this time. The last Interim Assistance Strategy covered fiscal years 2002-2005, and the last IBRD project closed in 2012. The Bank has been monitoring the Iranian economy, and has begun producing a semi-annual Iran Economic Monitor (the first issue was completed in April 2016), which includes recent economic developments, medium-term economic outlook and risks, and special focus sections. The first issue covered (i) oil and gas sector and (ii) financial sector. The second issue will include special focus sections on air pollution and the Bank's twin goals to end extreme poverty and promote shared prosperity.

The International Finance Corporation (IFC) has no program in Iran at present. Previous investments committed in 2004 and 2005 have closed, and IFC has no exposure to Iran. Multilateral Investment Guarantee Agency (MIGA) issued two guarantees in 2005 and no guarantees have been provided since then. As of September 2016, MIGA's gross exposure in Iran stood at US\$55 million for one remaining investment.

¹ The economic recovery came as a result of the partial lifting of sanctions under the interim Joint Plan of Action (JPOA) signed between Iran and the P5+1 (i.e., China, France, Germany, Russia, the United Kingdom and the United States) in November 2013, and the related rise in consumer and business confidence. Under the terms of the JPOA, Iran agreed to curb the development of its nuclear program while the international community enacted a temporary and partial easing of sanctions on the country. These sanctions relief included the partial removal of constraints on Iran's oil exports, and the supply chain in key sectors of the economy—such as in the automobiles industry—and on international and domestic banks' international transactions, as well as partial access to Iran's frozen assets held abroad.

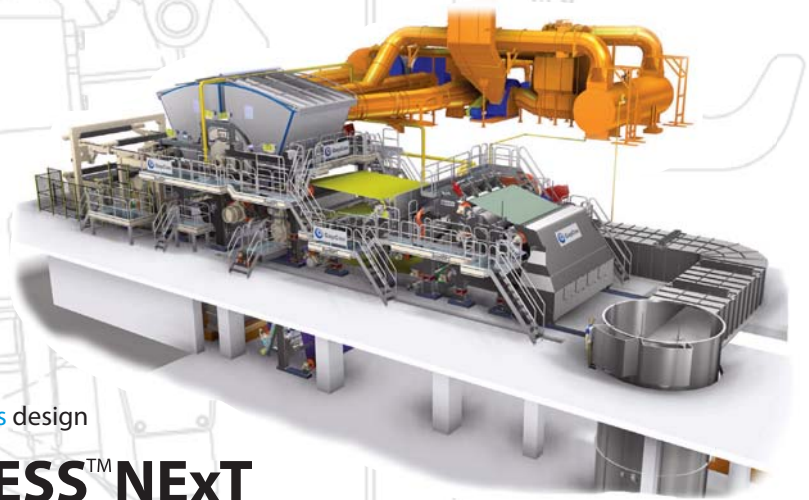
All references to calendar years herein designate the Iranian calendar year, which runs from March 21 to March 20 of the following year.

**HIGHEST
EFFICIENCY**



introducing
high performance tissue machine

EconSOFT™ ERS
Energy and Resources Saving



featuring
the new shoe press design

EconPRESS™ NEXt
New Extended nip concept
for Tissue

GapCon tissue S.r.l.
Via Mirandola 13 - 37026
Settimo di Pescantina
Verona - Italy
phone: +39 045 6700298
info@gapcon-tissue.com
www.gapcon-tissue.com



NETInc
Innovative Nonwovens Conference

THE 2017 Innovative Nonwovens Conference

April 23 - 26, 2017

MINNEAPOLIS, MINNESOTA, USA

**Special Mill Program
and Discounts!**

Don't Miss the only technical conference developed by engineers and technologists to help you understand the innovation behind the science and how it impacts the market.

**REGISTER
TODAY**

**Early Bird
Discount Ends
MARCH 24TH**

**Get more details at
NETINCEVENT.ORG**

CONFERENCE HIGHLIGHTS

Comprehensive Technical Program featuring:

- RISI Nonwoven Market Report
- Technical Textiles Tutorial
- Nonwovens Testing Tutorial
- Nanofibers in Nonwoven Products

NETInc/PaperCon Awards Dinner

Keynote Speakers

- David Allan, RISI
- Andrew Willis, H&V

Ecolab Tour

TAPPI



NETInc 2017 and PaperCon 2017
are co-located with



Also attend PaperCon 2017, the world's largest technical conference for the Paper and Packaging Industry!

- Peer-reviewed Technical Program
- Career Advancement and Tutorial Sessions (with CEUs)
- Young Professionals Program
- Hot Topics Breakfast Roundtables & Expert-led Panel Discussions
- New Technology Showcases & Over 200 Exhibitors
- Networking Opportunities with Industry Professionals and Experts

Visit PAPERCON.ORG for more details and to register

Walid Daniel Dib

Based on Hatem Otoum presentation at EDANA's Outlook 2016
Hatem Otoum, Managing Partner, Stragnum Offshore

Iran's Absorbent Hygienic Market

THE CURRENT STATE OF PLAY IN IRAN

Very few countries have undergone the economic and geopolitical stress tests Iran underwent in the past 30-odd years. Although the country was a leading industrial and economic force until 1979, the revolution and subsequent wars and sanctions caused multiple reforms, some of which the country still follows until today.

Due to the closed-in economic nature of Iran in the mid-2000s, the country was largely unaffected by the 2008 global market crash, but the country's uranium enrichment program led to severe sanctions in 2012, leading to a recorded all-time low of the Iranian Rial, at approximately 23,900 to the US dollar.

Today, Iran may not be undergoing the same growth it did in the 1970s, but it is still considered one of the world's leading energy super powers, with about 10% of the world's oil reserves located throughout the country. This, coupled with the fact that decades of sanctions have been somewhat lifted, the entire country's system has adopted a transitional economy. With more than 40 industrial sectors in its stock exchange, the country has been slowly but surely shifting from a nationalized central industry to a market economy, with about 70% of its economy run by semi-governmental bodies.

Moreover, the relief of sanctions has more and more foreign investors eyeing the Iranian market. This is due to foreign investors being able to have 100% ownership over their companies within Iran, a huge aspect the country has in favor of its oil-rich gulf neighbors, where a local must own at least 51% of a company.

Although internet access is heavily censored, Iran was ranked as the world's number one in scientific growth in 2011, and has an unparalleled global development

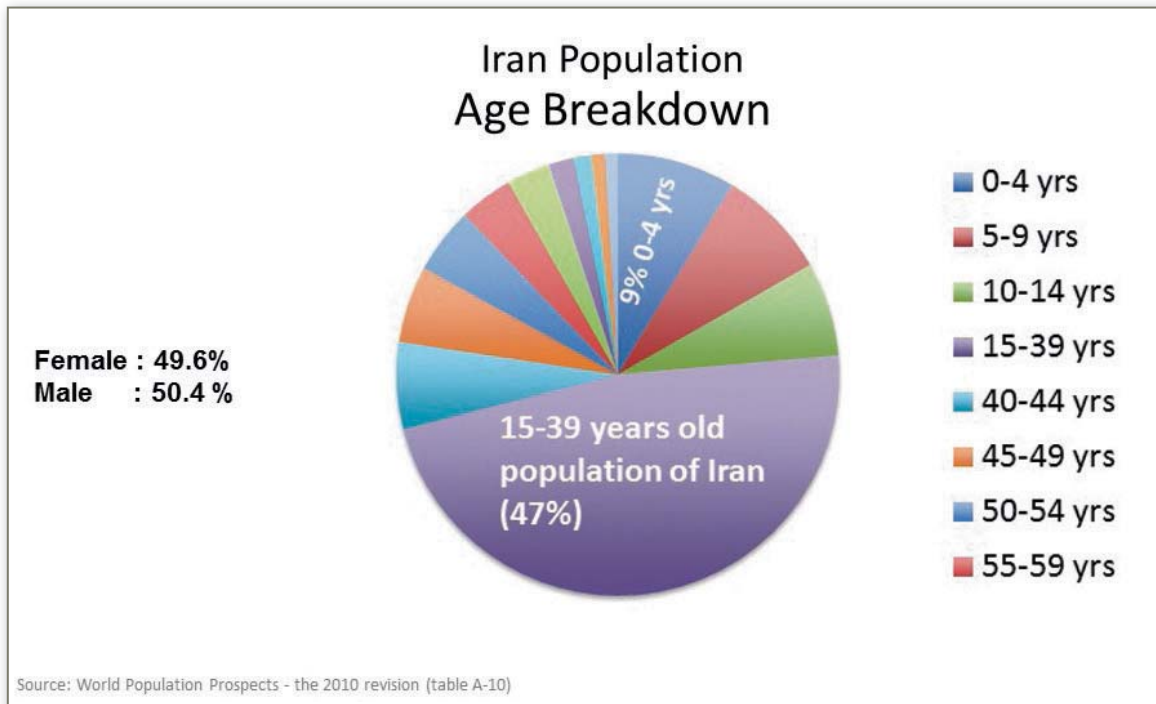
rate in the telecommunication sector. With more than 42 million Iranians frequently using the internet, the country's official statistics show a surge of 229% in national online sales registered across the country. The consumer in modern day Iran is smarter than ever, and with the advent of globalization and minor access to smuggled foreign brands, there is a clear understanding of what defines a quality product, censorship or not.

The fast-moving consumer goods (FMCG) market is growing exponentially. Although the profit margins were relatively low per manufactured product, the low shelf life of these items along with the production and sale of large volumes meant that cumulative profit is becoming difficult to ignore for both retailers and suppliers. That being said, the Iranian absorbent hygienic product market is dominated by national suppliers, who have had a very healthy sales growth in 2015 across the board.

For example, baby diapers are the most sold absorbent hygienic product, with a market of US\$540 million in 2015, and a growth rate of 12%. While incontinence diapers had the lowest market cap at US\$11 million, at 21% growth, they almost had double the growth rate of any other product on the market in 2015.

IRAN'S SANITARY ABSORBENT PRODUCT CONSUMER BREAKDOWN

According to information published by the CIA fact book, the country's population as of July 2015 was 81.8 million, up from 77.45 million in 2013. The latest population growth rate is shown at 1.5% per year, with an almost equal distribution between male and female births.



Almost 90% of the population is aged below 55, and Iran's median age as a whole is 28, which is lower than its surrounding countries, and comparably lower than globally developed countries like Japan (46.9) or Germany (46.8).

In any other country, such a low median age provides the perfect sweet spot: a growing professional young workforce would result in better equipped manufacturing and service sectors across the country's industries, and the high availability of labor would mean competitiveness and lower wage cost pressures for employers.

In Iran, however, due to sanctions and lack of foreign investments, the unemployment rate has been floating around the double digits for the past 10 years, peaking at 14% in 2014. This has caused many young professionals to seek jobs overseas, even though the country has one of the highest (97%) youth literacy rates in the region.

Iran's total GDP is US\$425 billion, which translates to US \$16,507 per capita. Now that many of the sanctions have been lifted, however, the International Monetary Fund (IMF) expects a GDP boost to around 5% by 2017.

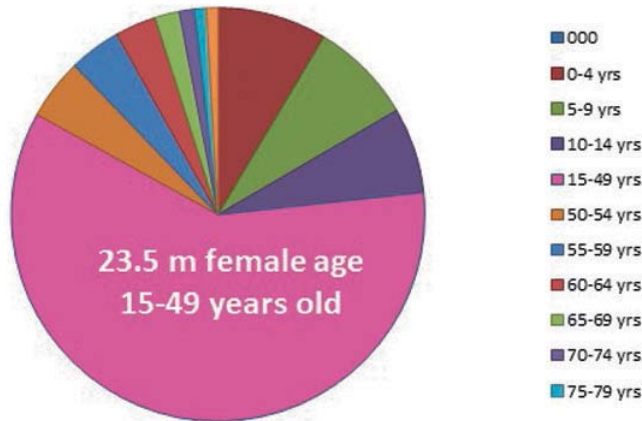
The above information, along with the primarily youthful population of Iran stand to cause a serious uptrend in consumer spending throughout the country soon. With a good economy right around the corner, a very large portion of the population is about to shift into the working age group, which will lead to a higher disposable income and by proxy a higher propensity to spend on products, of which FMCGs such as luxury baby diaper brands will surely flourish.

Nearly 10% of the entire country is under the age of 4, which explains the hefty market size and growth mentioned previously. With regards to female sanitary pads, 49.6% of the entire population are female, 23.5 million of whom are between the ages of 15 and 49.

The hygienic awareness of the country's growing Middle Class has created a serious demand for the nationally produced tissue products, increasing tissue consumption at a rate of nearly 7% per year between 1995 to 2005, according to a report conducted by Esko Uutela of RISI consulting.

According to the report, Iran consumed 160,000 tons of tissue last year, with only Turkey and Saudi Arabia consuming more sanitary products per capita in the MENA region last year.

Iran Population Female Population Age Breakdown

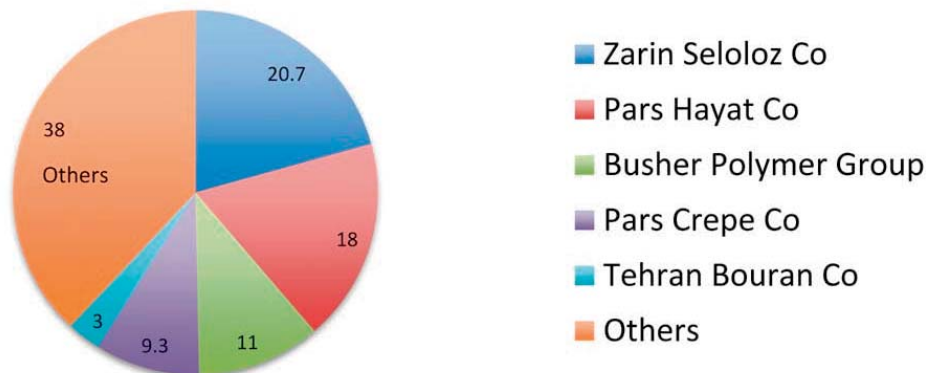


CURRENT COMPETITION THROUGHOUT THE MARKET

The above pie chart breaks down the distribution of major players in the Iranian hygiene industry by market size. It should be worth noting that not all of the above companies compete at the same aggressiveness across all sectors of the absorbent

hygienic product market. For example, while Zarin Cellulose Co is the largest company by market cap (as shown in the pie chart below), its market share in feminine napkins is less than half of Busher Polymer Group, a company that only accounts for 11% of the total hygiene market shares.

Total Hygiene Market Shares



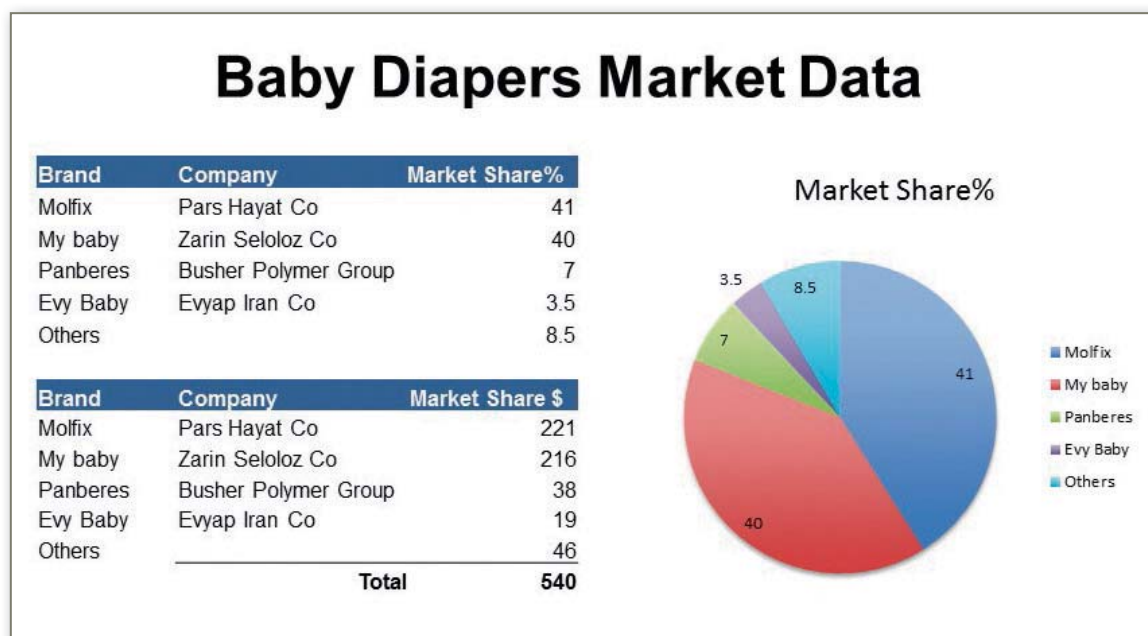
BABY DIAPERS

When it comes to the baby diapers market, Pars Hayat's Molfix and Zarin Seloloz Co's My Baby dominate the market at 41% (US\$221 million) and 40% (US \$216 million) respectively, followed by Busher Polymer Group's Panberes at 7% of the total market share. There is a plethora of middle and lower range national brands, which collectively had a market share of US\$46 million in 2015.

The highest demand for baby diapers in Iran is specifically for the premium segment, where My Baby is the dominant brand both in value for money and quality. This is because of Zarin Seloloz Co and Pars Hayat Co's aggressive marketing campaigns through

TV commercials on local channels, which have earned both brands the highest advertising share of voice across the business. The constant high competitiveness of the above two brands have swayed Iranian mothers to their affordable yet high quality product features for their babies.

A Middle East Consumer Behavior & Attitudes survey has shown that Iranian mothers do not care for the packaging quality or brand name as much as they are concerned for the product features (i.e.: if it has a super absorbent core, soft fabric, skin lotion treatments, etc.). Second most important factor to consumers was the product performance, followed by the price for value.



SANITARY NAPKINS

Moving on to sanitary napkins, Bushehr Polymer Group's Panberes brand owns nearly double the market shares of the next runner up (Zarin Seloloz Co's My Lady), at a bulky US\$89 million out of a total market of US\$240 million.

While the market penetration of baby diapers across Iran was 74%, it was observed that the actual market for premium sanitary napkins is lower than 60%. This is surprising data, given that most females in Iran between the ages of 15 and 49 use sanitary napkins, even in rural areas and low-income neighborhoods.

Women in Iran are expected to increasingly prioritize the purchase of sanitary protection in their spending in the forecast period, according to Euromontior International. This trend is expected to encourage

consumers to trade up from standard thick towels in search of greater comfort and discretion.

The Middle East Consumer Behavior & Attitudes survey determined five factors that females in Iran consider a premium sanitary napkin should have: High Absorption, No Allergy, No Leakage, Fits the Body, and Secure while moving. As with the baby diapers, these product qualities were the driving factor behind survey applicants recommending the product, as opposed to Packaging or Brand name.

ADULT INCONTINENCE

The adult diaper market has three major players: Zarin Seloloz Co's Easy Life (US\$4 million), Seylانه Sabz Co's Nino/Dafi (US\$2 million), and Bushaher Polymer Group's Panberes (US\$2 million).

Sanitary Napkins Market Data

Brand	Company	Market Share%
Panberes	Bushehr Polymer Group	37
My lady	Zarin Seloloz Co	22
Always	P&G/ Tehran Bouran Co	15
Tafteh	Tafteh Arian Co	12
Cheshmak	Pars Crepe Co	4
Others		10
Brand	Company	Market Share \$
Panberes	Bushehr Polymer Group	89
My lady	Zarin Seloloz Co	53
Always	P&G/ Tehran Bouran Co	36
Tafteh	Tafteh Arian Co	29
Cheshmak	Pars Crepe Co	10
Others		24
Total		240



Estimated at around US\$11 million in total, the market for adult incontinence is the smallest among Iran's absorbent hygienic market due to its newness, but has shown the highest growth last year. This is due to the fact that the majority of adult incontinence products were imported at a very high price until 2010, with the introduction of Easy Life.

It should also be noted that many women in Iran who suffer from light incontinence are currently opting for sanitary towels instead of incontinence products, and are only willing to buy incontinence products when their condition is severe. On the other hand, a stronger

media advertisement movement in recent years across print media and Iranian TV has allowed consumers to comfortably purchase these products, by raising awareness of their usefulness to the market segment in need.

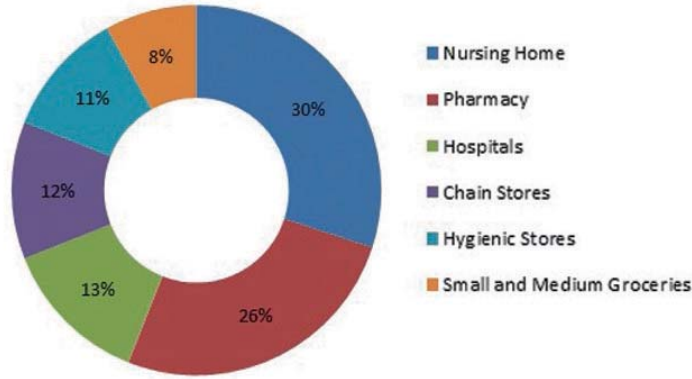
Adult incontinence products are available in major hypermarkets, but it is expected that there will be a massive growth in the sector once they are available on a commercial level (i.e.: pharmacies, hospitals, small and medium groceries, and nursing homes). Sales growth is also expected to benefit from an ageing population in the forecast period and a lessening of the taboos surrounding incontinence.

Adult Diaper Market Data

Brand	Company	Market Share%
Easy Life	Zarin Seloloz Co	32
Nino/Dafi	Seylانه Sabz Co	22
Panberes	Bushaheh Polymer Group	20
Abri-Form	Abena Group	12
Tena	SCA	9
Others		5
Brand	Company	Market Share \$
Easy Life	Zarin Seloloz Co	4
Nino/Dafi	Seylانه Sabz Co	2
Panberes	Bushaheh Polymer Group	2
Abri-Form	Abena Group	1
Tena	SCA	1
Others		1
Total		11



Sanitary Protection Sales Channel Break Down



more visible than international companies and brands in household care wipes and floor cleaning systems as they are more widely available in a greater number of retail outlets.

WET WIPES

Although domestic players have been stress-tested and have a strong presence in the market, foreign investors have already successfully penetrated the Iranian market by introducing superior products with new technologies which were previously unavailable by

As it stands, imported brands have an advantage due to their products being more discreet and allowing for a wetness indicator. The domestic brands are trying to catch up by working on sizes, and producing pant diapers, as well as designing discreet products.

domestic brands.

Today, the Iranian consumer awareness and preference for quality products has set new standards for competition. Incorporating new technologies and improving performance in hygienic products is the only way any of the abovementioned companies stands a chance to survive fierce local and international competition.

FUTURE FORECAST

With regards to the wet wipes market in Iran, Panberes owns a landslide of the shares, at 75%, the company has a US \$15 million monopoly of the domestic market's US \$18 million total.

On the flip side, international investors should also be aware that while sanctions have been somewhat lifted, petroleum in Iran accounts for 80% of Iranian exports, making the country's economy very vulnerable to the geopolitical uncertainties of the region.

Due to international brands being much more expensive, without a higher product quality, Iranian consumers have opted to use domestic products in recent years, which have recorded very rapid volume and value growth in wipes. These domestic brands are

All things considered, the above information shows that Iran's average growth rate in absorbent hygienic product consumption is definitely looking healthy. ■

Wet Wipes Market Data

Brand	Company	Market Share%
Panberes	Bushahe Polymer Group	75
Nivea	Beirdorf AG	12
Septona	Septona Co	4
Others		9

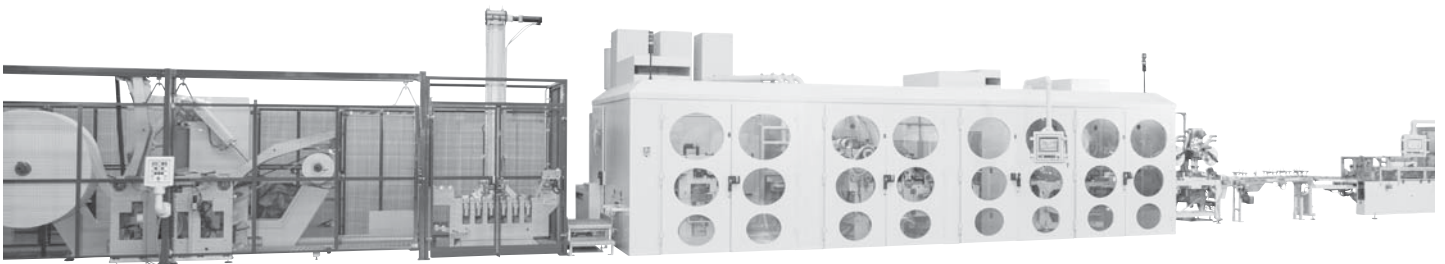
Brand	Company	Market Share \$
Panberes	Bushahe Polymer Group	15
Nivea	Beirdorf AG	2
Septona	Septona Co	1
Others		2
Total		18



850!

We proudly present our new complete Handkerchief Line from a single source, Made in Germany by SENNING!

- The Production Machine S.PM 820 + Bundling Machine 660 TG provides handkerchiefs at a high performance level and with the highest flexibility: The S.PM 820 can handle tissue of 2 to 4 plies and produces single packs with 5 to 15 tissues per pack – standard and compact – and bundles starting from 2 single packs up to 144 single packs. With maximum speed, the line can produce 8.000 tissues, 850 single packs and 100 bundles per minute. With this new Handkerchief Line, SENNING is setting a further state-of-the-art standard.
- Handkerchief Lines
 - S.PM 820 + 660 TG with max. speed of 850 single ppm
 - S.PM 805 + 662 TG with max. speed of 450 single ppm
- Wrapping Machines for facials, napkins, hand towels and non-wovens
 - SE 660 with max. speed of 100 ppm
 - SE 662 with max. speed of 60 ppm
- SENNING supplies machinery – Made in Germany since 1949 - for wrapping facials, napkins, hand towels and non-wovens, for single and multiple stacks.
- SENNING is able to design its machines individually according to your needs and requirements and to find customer-specific solutions.
- SENNING is the company to contact whenever you are looking for a reliable partner in connection with the production of handkerchiefs, facials tissues, napkins, hand towels and non-wovens.



+49 1520 1599 138



SENNING

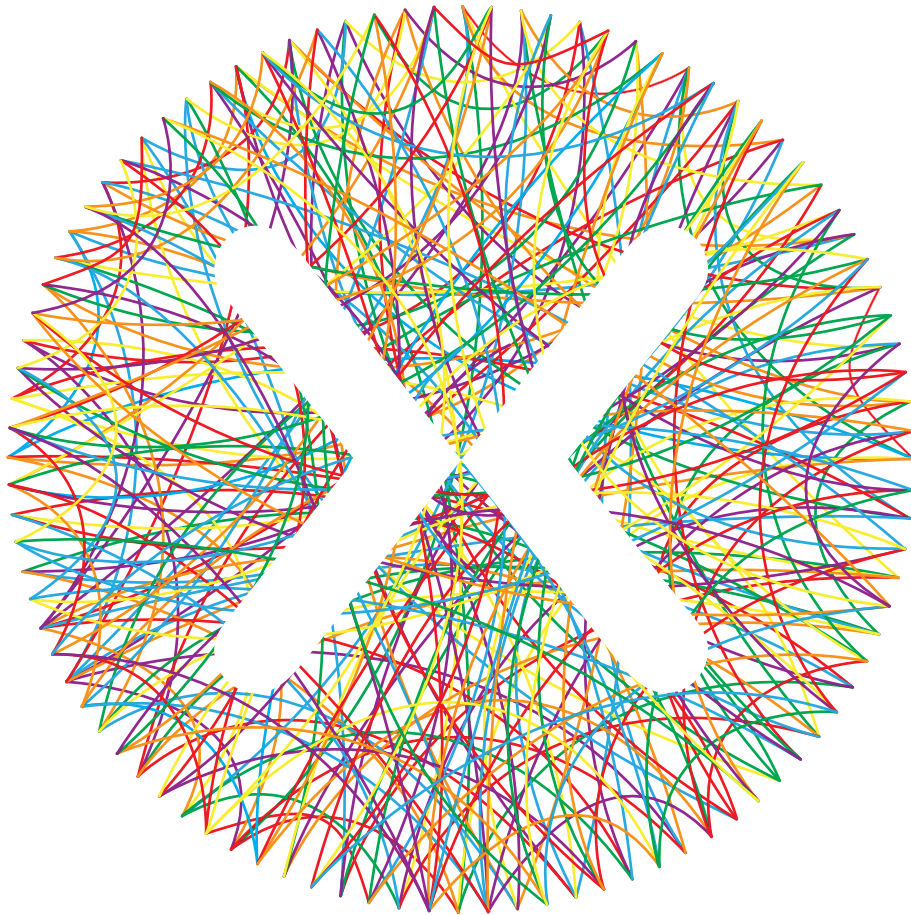
Christian Senning
Verpackungsmaschinen GmbH & Co., KG
Kalmsweg 10 | 28239 Bremen | Germany

Phone: +49 421 69 46 2-0
E-Mail: info@senning.de

www.senning.de



Connecting you
with new business
opportunities.



indexTM17

WORLD'S LEADING *nonwovens* EXHIBITION

4 - 7 APRIL 2017 GENEVA - SWITZERLAND



www.index17.org

Henkel Iran

Up To the Challenge!



Henkel Iran was established in 1972 and has close to 200 employees. All three divisions of Henkel are represented at the Henkel Iran office, reemphasizing on their strong position in the Iranian market. Divisions are Adhesive Technologies, Laundry and Homecare as well as Beauty Care. Within Adhesive Technologies Henkel serves a wide range of markets from Industrial to Automotive to General Industry and Consumer Adhesives. Henkel Iran owns a multi technology plant in Qazwin, which is about 150 km distance from Tehran. It has the ability to produce adhesives of 12 different technologies and the capacity of close to 45.000 tons. Besides Iran, Henkel has in the Middle East manufacturing plants in Turkey, Saudi Arabia and UAE.

Country manager, Mehrdad Hamidi, explores the success and challenges of Henkel Iran.

HENKEL: LEADING TECHNOLOGIES FOR THE FUTURE

“Henkel Adhesive Technologies drives powerful innovations and develops leading technologies that create more value for our customers. Our expert people continuously improve our existing products and develop breakthrough innovations. We have a unique ability to identify technology and societal trends and provide leading technologies for the future.

Henkel Adhesive Technologies is delivering advanced technologies and leading solutions across its industrial and consumer markets, and is further driving its innovation capabilities and leadership forward. We remain focused on driving profitable growth by investing into our own R&D and product development, as well as into new market opportunities. Expanding our innovation horizon enables us to deliver tailor-made solutions for our customers today, while at the same time developing leading technologies that create even more value for them tomorrow.

Thirty percent of sales within Adhesive Technologies



Mehrdad Hamidi,
Henkel Iran country manager, Business Development Manager Tissue (AIT) IMEA

come from products that are less than five years old. Clearly defined focus areas and target markets and close monitoring of mega trends helps identify new areas for research by pinpointing possible incremental improvements of existing technologies and identifying disruptive technologies that can transform an entire value chain and create completely new markets. Adhesive Technologies continually reviews its portfolio to make sure innovation drives growth in the future – as it has in the past. This process determines where the company will invest and leads to continuous improvements and refinements.

A SOLUTION FOR EVERY ASPECT IN THE NONWOVENS BUSINESS

Adhesive solutions for the tissue and towel industry have to suit diverse applications. Henkel has developed a tissue converting adhesive range that covers traditional applications such as lamination, pick up, core winding and tail sealing. Our own research along with the cooperation of our machine producers ensures Henkel adhesives bond professionally, at the right moment and in the right place.

The baby diaper industry is very dynamic. Diapers nowadays are highly functional products that combine comfort and skin friendliness with high absorbency and leakage protection. Over the years, the industry has managed to increase performance while reducing materials. This is well reflected in Henkel's high performance hotmelt solutions, which enable our customers to achieve more with less.

The growing consciousness for personal hygiene and healthcare has pushed the feminine care market tremendously within the past few years. New, more sophisticated products with distinct features corresponding to the specific category needs of the consumers are being offered by the industry leaders. This innovation trend has gone hand in hand with the development of Henkel's dedicated adhesive solutions for feminine care essentials such as sanitary pads, panty liners, light inco pads etc.

The aging population results in a growing need for adult incontinence products. Customers are looking for more comfort and convenience as well as discreet product solutions. Odor prevention and control as well as skin protection play a major role in the adult incontinence industry. At Henkel, we support our customers with sustainable adhesive technologies for every application.

NEW DEVELOPMENTS

Henkel is a global innovator, manufacturer and marketer of adhesives for nonwoven applications. We bring a host of new developments and advantages to our customers' business to improve both products and processes. We partner with our customers to offer adhesives for thinner, more flexible substrates as well as adhesives for the wide range of elastic materials. Our TECHNOMELT DM COOL low application temperature adhesives have proven application temperatures as low as 120°C. This technology has provided process efficiencies and application benefits to customers around the world.

Henkel's TECHNOMELT is the leading choice for hot melt adhesives designed for the best results in our customers' production processes and finished products.

Henkel's AQUENCE is the brand for innovative, sustainable, water-based adhesive solutions.

TECHNOMELT adhesives deliver superior cost-in-use and efficiency, and are trusted for reliability, quality and proven results.

AQUENCE FiberPlus is a cellulose fiber treatment system – not a superficial lotion – that can be easily applied with roller or spray application systems for production of toilet paper, handkerchiefs, napkins as well as facial tissues. AQUENCE FiberPlus provides excellent softness and smoothness to the paper and represent the perfect carrier for the application of cosmetic/functional additives.

AQUENCE improves our customer's Total Cost of Ownership and product quality.

Both TECHNOMELT and AQUENCE are leading brands worldwide and our unmatched success track record in tailor-made solutions reflects our continuous commitment to our customers.

HENKEL TECHNOLOGIES ADDED VALUE

Henkel, offers a broad range of adhesive solutions that meet the requirements of our customers manufacturing processes. Our innovative products for the disposable hygiene and nonwoven industry combine the appropriate adhesion level, together with different functionalities like skin-friendliness, softness,

scents or odorlessness, thus equipping hygiene products with the right characteristics for each application.

HENKEL IN THE MIDDLE EAST

We are present in all ME markets and we are leaders in both industries. Our clients range from global companies over regional players to local producers

Henkel is accepted as the trusted partner for all hygiene and tissue applications. Our highly experienced staff and innovative technologies enable us to offer tailor-made solutions and services. Among others, customer proximity, innovation and sustainability constitute the most important pillars of our 360° expertise. By this we are able to perform since many years' actively in global markets and also on a regional and local levels, like in MEA and Iran.

For Tissue, we are dealing with a very diverse and segmented market map in Middle East region, from countries with big market and production like Turkey, KSA and South Africa to countries like India and Pakistan in development phase. Main challenges is to serve all market with flexible portfolio and technologies, which is present by Henkel local presence and global technical service.

Iran in this sense is in the middle for development, shape of the market shifted to big key accounts as a result of investment in Tissue field in last few years.



**FOCUS
ON IRAN**

SANCTIONS REMOVAL IMPACT

With a population of over 80 Million, Iran has a large consumer market, easing on sanctions will definitely result on more investment and also growth in the market.

CORPORATE SOCIAL RESPONSIBILITY

Henkel supports the volunteering activities of its employees and retirees by channeling donations in kind, product donations and grants to them through the MIT Initiative (“Make an Impact on Tomorrow”). The company also allows its employees to take paid leave for such undertakings, as well as providing specialist advice where needed. The diversity of the Henkel Group with its approximately 47,000 employees is reflected by the many and varied volunteering projects that the company supports through the MIT around the world: help in the restoration of children’s playgrounds, refurbishment of a mountain village in Guatemala, reforestation projects, support for a voluntary youth firefighting service, construction of a kindergarten in South Africa, educational grants for socially underprivileged young people in Cambodia, volunteer soccer training – the list is almost limitless.

ENVIRONMENT AND HEALTH: SUSTAINABILITY MEASURES

Commitment to leadership in sustainability is one of Henkel’s corporate values. Maintaining a balance between economic success, protection of the environment, and social responsibility has been fundamental to its corporate culture for decades. As sustainability leader, Henkel aims to pioneer new solutions for sustainable development while continuing to shape its business responsibly and increase its economic success. This ambition encompasses all of the company’s activities and is underpinned by about 50,000 employees around the world, who have firmly

embraced the principles of sustainable development in their daily work and think and act accordingly.

Until 2030, Henkel aims to triple the value the company creates through its business operations in relation to their ecological footprint. Henkel calls this ambition of becoming three times more efficient “Factor 3.” One way to achieve this is to triple the value Henkel creates while leaving the footprint at the same level. Or Henkel can reduce the ecological footprint to one third of today’s level, achieving “Factor 3” improvement in

efficiency by delivering the same value. In most cases, Henkel will approach this from both sides: reducing the resource consumption and at the same time increasing the value.

CHALLENGES AHEAD

We at Henkel like to view a challenge as an opportunity to put our creativity, experience, market knowledge and other resources to work. To give but one example: About 7 years ago the baby diaper industry started going for thinner products, having an absorbent core containing less fluff and more super absorbent polymers .

The subsequent issue of core in stability during use became a stimulant for Henkel to develop specific core hot melts allowing the reduction of the fluff content of the diapers without compromising on core integrity.

A second example I like to quote is providing odorless hot melts to the diaper industry that is shortening its supply chain and catering to a public with increased olfatic sensitivity.

A specific country-challenge which Henkel will face is that more competitors are coming into the Iranian market as it gradually opens up. This will be an impulse to improve the value proposal and a stimulant for continuous innovation.

Henkel has a long presence in the country in this sense there is a good understanding of the existing market, which is quite competitive, in this sense the market will continue to be challenging and competitive. ■

“A specific country-challenge which Henkel will face is that more competitors are coming into the Iranian market ”



PaperCon 2017

APRIL 23-26, 2017 • MINNEAPOLIS, MN USA

Experience the World's Largest Technical Conference for the Paper and Packaging Industry



Special Mill Program and Discounts

Get more details at PaperCon.org



Be part of PaperCon 2017 as a Sponsor and/or Exhibitor

See available opportunities at
PaperCon.org

RENEW your career

- ▶ Career Advancement and Tutorial Sessions (with CEUs)
- ▶ Networking Opportunities with industry professionals and experts
- ▶ Young Professionals Program and Couch Pit University

RETHINK how you view the industry

- ▶ Comprehensive, peer-reviewed Technical Program
- ▶ Latest Technological Advances and Processes impacting the industry
- ▶ New Technology Showcases

REDEFINE the future

- ▶ Hot Topics Breakfast Roundtables
- ▶ Expert-led Panel Discussions with insight into future trends
- ▶ Poster Session highlighting new ideas and solutions

Papermaking • Coating & Graphic Arts
PIMA • Young Professionals

REGISTER OR LEARN MORE AT PAPERCON.ORG

NETInc
Innovative Nonwovens Conference

The ONLY technical conference developed by engineers and technologists

- ▶ Technical Program focuses on the innovation behind the science and its impact on the market
- ▶ Special Events include the PaperCon/NETInc Awards Dinner and featured sessions



SIGN UP TO LEARN MORE AT NETINCEVENT.ORG

PaperCon 2017 and NETInc 2017 are co-located with





SVECOM P.E.

Paper and Tissue World

**Pneumatic
Shaft**



**Pneumechanical
Core Plug**



NEW

**Electric Trolley
401BA**



Shaft Puller

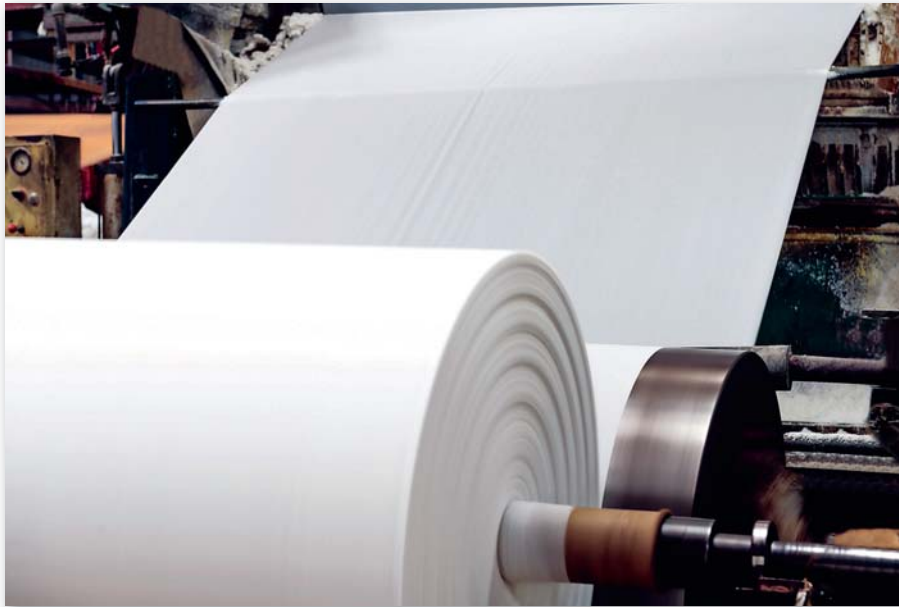


Agents and distributors all over the world.
SVECOM P.E. Srl - Via della Tecnica, 4 - 36075 - Montecchio Maggiore - VICENZA - ITALY
Tel. (+39) 0444.746211 - Fax 0444.498098 - e-mail: svecom@svecom.com
For U.S.A market requests contact the affiliated Company Goldenrod Corp. - www.goldrod.com



www.svecom.com

Solenis Combines a Startup Mentality with Established Leadership to Ensure Consistent Growth and Market Strength



Solenis is grounded in a strong heritage that includes Ashland Water Technologies, Betz Laboratories, Drew, Stockhausen and Hercules. While that heritage comes with

Hydrolysis is a common chemical reaction in which bonds are broken, releasing energy. The acquisition of Ashland Water Technologies by private investment firm Clayton, Dubilier & Rice (through a fund managed by CD&R) was, in many ways, a type of hydrolysis, cleaving the Industrial Water and the Pulp and Paper business units from Ashland Inc. to form Solenis, a standalone specialty chemical business. The energy produced by the transaction propelled the new organization forward and enabled it to establish a strong corporate foundation while preparing for future growth and innovation.

BUILDING A GROWTH CULTURE

Everything began with the emerging Solenis culture.

a number of benefits, it also encourages employees to embrace legacy brands and belief systems. According to Jeff Fulgham, Senior Vice President and Chief Marketing Officer, “There was a lot of debate about the kind of company we should be, even the name we should use. Some people wanted to go back to Hercules, but we felt strongly that we needed a new name. It gave us a chance to start fresh.”

Beyond the name itself, starting fresh meant creating a single unified culture with common goals and values. Driven by Solenis President and Chief Executive Officer John Panichella’s vision of an organization commercially focused around customers, the company embarked on an intensive culture-building initiative built on 12 core beliefs organized around three priorities — People, Performance and Results. Every belief is driven by experiences that support that belief, which in turn cultivates behaviors and actions to drive results.



Jeff Fulgham, Senior Vice President and Chief Marketing Officer, Solenis

The culture work began in September 2014, soon after the new company was formed, and by June 2015, the core beliefs were vetted and approved. By October, the company began broadcasting videos — 72 in all, with scripts translated into nine languages — featuring employees who could share experiences directly tied to each of the beliefs. A series of surveys have since measured the pulse of the Solenis employee population, and participation rates have been as high as 93 percent.

The ultimate goal, however, is not simple participation but acceptance and internalization. As Katy Abernathy, Director, Global Marketing and Business Communications, points out, “Safety is a metaphor we use all of the time. We are one of the safest organizations in our industry, thanks to a conscious and deliberate campaign we have executed over the years. Now, safety is part of the daily routine of our employees. That’s where we want to be with the Solenis corporate culture.”

Even though there is still work to do on the culture front, the progress has been impressive. In fact, speed and agility have been equally important watchwords. Consider that the new Solenis organization began with no HR department, no financial officer and no

IT infrastructure. Some companies can take a year or longer to get these new functions established and staffed, but Solenis was able to do it all in just a few months. One of the biggest accomplishments was establishing a robust recruitment and training program to attract and retain talent.

According to Iris Melendez, Director of Global Talent Management, Solenis put some stopgap recruitment measures in place to keep the organization moving forward. “That got us from point A to point B,” Melendez notes. “Now we have a recruiting manager in place, and we’re somewhere between point B and point C — looking at recruitment with totally fresh eyes, figuring out how we want it to work in the new Solenis culture. Same thing with training: We stopped training in the transition from Ashland, but now we’ve launched an extensive global leadership curriculum, as well as a global sales curriculum, and we’re investing heavily in the professional development of all our employees.”

Creating an IT team from scratch required another herculean effort. The company’s approach, according to Solenis Chief Information Officer Charles Wallace, was to keep the IT function small. “We looked for high-energy people who could see through the confusion,



John Panichella, President and Chief Executive Officer, Solenis



visualize an end state and then fight their way to it,” he says. “We also decided that, while we wanted to own the IT strategies, we wanted to take advantage of managed services for key capabilities. This approach has enabled us to get a lot done — initiate the digitization of business processes, consolidate our enterprise resource planning platform to a single instance of SAP, assess and mitigate security threats — but has also enabled us to look toward the future so we can help the company grow.”

BLUEPRINT FOR SUCCESS

Growth, more than anything else, defines the still-coalescing Solenis. Building a sustainable business that is 100 percent committed to helping its customers succeed is an idea that permeates the culture and drives all of the key strategic decisions. “Growth is our number-one priority,” Jeff Fulgham observes. “We need consistent top-line revenue growth, and to get it, our strategy must have several legs. Mergers and acquisitions are important — we’ve closed five deals in the last two years and we have a rich pipeline of deals in the works. Aggressive growth in emerging markets is also critical. And, of course, innovation — bringing new products to the market — has always been a high priority.”

What’s different today is how Solenis innovates. Coming from so many legacy companies, the organization didn’t have a clear approach for early-stage innovation. Some teams embraced one methodology, while others

went in different directions. Also, there wasn’t always a clear focus on customer needs. As a result, the business launched a number of products that received only lackluster attention from the market.

To re-energize its innovation strategy, Solenis adopted the Blueprinting framework and software, developed by the AIM Institute, and appointed Melinda Burn, Global Director, Strategic Marketing and Innovation, to lead the company’s effort. “Blueprinting takes the voice of the customer and makes it quantifiable,” Burn explains. “It’s a two-phased approach that starts with Discovery Interviews to identify actionable problems, followed by Preference Interviews to discover market satisfaction gaps — problems that are felt across the market for which there are no solutions.”

Over the last eight months, Solenis has engaged a significant number of its customers across all key segments, standardizing its approach to early-stage innovation while filling its pipeline with market-defined product development opportunities. At the same time, the company has looked closely at new product introductions — how to launch more effectively and how to evaluate NPI performance in the market. “We’re really trying to understand our tracking process,” Burn says. “For example, we’re looking at both the percentage of products classified as NPIs — less than five years old — as well as the percentage of revenue coming from NPIs.”

The focus on innovation is paying off. Solenis has recently introduced a number of products, technologies and services that have had significant impact — for customers and the company. On the water and process side of the business, as Vice President of Marketing, IWT, Jeff Ballew points out, the focus has been on execution. “We have a number of products — antiscalants, rheology modifiers, biocides — that are exciting.” For example, the launch of new Polystabil™ scale inhibitors and Performax™ cooling water treatments have helped enterprises in a variety of industries improve operations, reduce downtime and still adhere to increasingly severe regulatory guidelines for chemical usage. On the pulp and paper side, introductions of innovative products, such as the Biobond. Improving the Sustainability of Paper program and new Crepetrol™ creping adhesives, have enabled packaging, paperboard and tissue and towel manufacturers to truly revolutionize how they make paper.

Across all market segments, OnGuard™ controllers and analyzers, as well as a web-based service to collect data from those technologies, continues to impress customers who need to monitor system performance in real time. And the rollout of Solenis’ Equipment

Services Team, first in North America and then in Europe, makes it possible to deliver even better service to its customers by keeping Solenis-owned equipment online and running at peak efficiency.

FAST FORWARD

All of this adds up to make Solenis a strong company with a bright future. As Solenis Vice President of Marketing, Pulp and Paper, Ricardo De Genova points out, “We’re really excited by the opportunities ahead of us. We’re undisputed leaders in certain markets, but we have plenty of room to grow. And in certain markets, we think we can reinvent the industry. The overall scenario for Solenis is very positive.”

Jeff Fulgham agrees. “We’re doing well in spite of a number of big global changes. There’s a lot of noise in the financial markets, a lot of deflation in oil markets, anticipated inflation in raw materials, yet we still have been able to consistently achieve top-line growth and deliver our products 98 percent on time — our best supply chain performance ever.”

This positions the company well as it prepares for the future, now a smaller, stronger, more adaptable organization, thanks to its hydrolysis from Ashland Inc.



Solenis Germany, Krefeld

TISSUE WORLD

São Paulo

TRADE SHOW & CONFERENCE
31 May - 2 June 2017
Transamerica Expo Center (Hall E)
São Paulo, Brazil

www.tissueworld.com/SaoPaulo

Register **TODAY** and be part of the only
dedicated tissue event in South America.



Develop all the tissue business connections
you need in **Brazil and South America!**

Portfolio

TISSUE WORLD

Organised by



Official Publication

TWM
TISSUE WORLD MAGAZINE

TO HAVE THE LATEST EVENT UPDATES OR TO REGISTER TO ATTEND,
VISIT www.tissueworld.com/SaoPaulo

PrimeService for Tissue Machines Extending the Lifecycle: The key to Lower Costs

ANDRITZ is strengthening its service activities for tissue machines and has a series of new tools designed to make life a lot less complicated for mill managers and production personnel.

The tissue industry is characterized by severe competition and cost pressure. This is why service is gaining more and more importance with customers recognizing the benefits of improving the performance of their equipment, adapting and extending the overall lifetimes. In addition, in the tissue sector, service activities are often requested to solve runnability, quality or energy issues. Customers are also recognizing how professional services such as consultancy, training and measurements can help improve their business performance.

REBUILDS, CONVERSIONS AND OVERHAULS

When talking about rebuilds Yankee hood rebuilds seem to become more and more important. The prevention of sheet breaks and fires in the drying



Apart of Yankee hood rebuilds, ANDRITZ offers steel Yankees for new machines and rebuilds.

section and especially in the area of the Yankee is one of the key challenges in tissue production. Drying hoods on a Yankee dryer need to have a balanced air system, however, due to the suction slot ahead of the ingoing nozzle box, there is typically an infiltration of dirt into the system. This leads to a plugging of the first nozzle and the immediate area surrounding it. Sheet breaks and sometimes even fires might be the consequence. ANDRITZ offers a rebuild with a specially designed air nozzle. The existing part is removed by cutting off the suction slot and the new AirKnife is added. The rebuild ensures that the dirt is no longer drawn into the slot, but is blown away by pressurized air.

When talking about overhauls, headbox overhauls come foremost to mind – they are a real speciality of the ANDRITZ service teams. Headboxes work in very demanding environments: heat, moisture, and vibration. Over time, their performance will degrade as the forces of corrosion, damage to the lips, the wear of adjustable components, and defects in the heating channels, take their toll. When this happens, sheet quality and

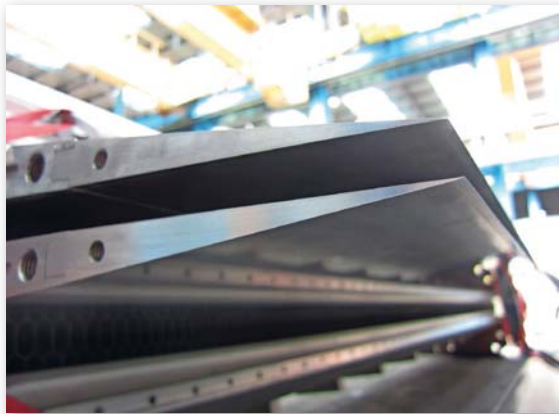
operational safety can be impacted.

The decision then becomes “replace” or “recondition”? ANDRITZ offers an annual service to inspect, recondition and when necessary, rebuild headboxes from any OEM to restore the performance - while extending the life of the customer’s initial capital investment. The headbox overhaul service includes a lot of specific actions, including lip repairs. Since any damage to the top or bottom lip - even the smallest

scratches - will have a negative impact on CD sheet profiles, we offer lip repair service as an alternative to costly replacements. Our specialists will perform all the operations - levelling, planing, grinding, shaping, and deburring – to bring the lips back to specifications. These operations can be directly done on-site in the mill or in our workshops in Austria (Graz).

THE HIGHLIGHT

A real highlight of the ANDRITZ tissue services is the Yankee lifecycle management. It includes customized solutions for new Yankees and rebuilds and escorts

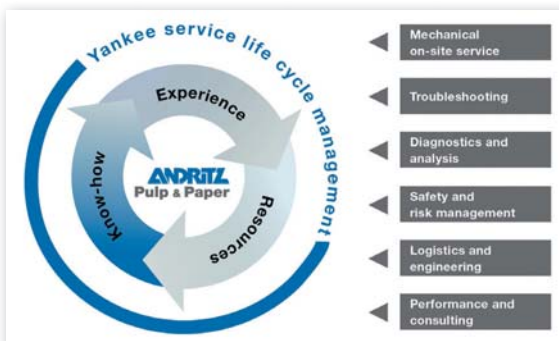


Headbox lip-repair: cost-efficient repair instead of cost-intensive exchange.

the customer through the complete Yankee life cycle. No matter if cast or steel, no matter what brand and what end product (tissue, paper, board, MG paper, tobacco). The services include solutions and support for upgrades and replacements, safety, production, and analysis (e.g. on the run measurements). A real highlight is the ANDRITZ coating and grinding with mobile units directly at the customer’s site – this is worldwide unique! Grinding up to 6800 mm Yankee shell length is possible and coating is done with three spray guns at the same time.

SAVING MAINTENANCE COSTS

ANDRITZ has spent a lot of efforts in developing service solutions to improve production efficiency and quality at the same time as reducing maintenance costs. One innovative result is for example the ANDRITZ wire and felt guide unit that enables reliable wire tracking. Conventional mechanical tracking systems comprise many parts which require a lot of maintenance and perform a machine directional movement that is failure-prone. A reliable, well functioning wire tracking system is crucial for ensuring trouble-free operation. The wire and felt guide unit enables precise control due to pneumatic design. It



Comprehensive services for Yankees from ANDRITZ AG

TECHNOLOGY





The wire and felt guide unit for steady guidance of the wire and low maintenance costs: No unplanned shut-downs, highest reliability due to uniform and rapid response, lowest maintenance costs

features a pivoting saddle to which the bearing housing of the wire tracking roll is bolted. The saddle is pivoted by two reciprocal air bellows (one constant pressure, the other variable), resulting in a skewed position of the guide roll. The guide centers the wire by a finely proportioned air flow into the controlling air bellow.



Example of installation: wire and felt guide unit installed in a 1800 m/min tissue machine at Corelex Shin-Ei Paper, Japan.

DIGITIZATION, BIG DATA, AND ASPECTS OF INDUSTRY 4.0

ANDRITZ is already preparing the basic data and tools for future implementation in new service products, and we are already gaining experience from the first automation installations of tissue machines. The focus is to approach Industry 4.0 from a technology enabling and lifetime prolonging standpoint. Digitalisation is the vehicle, smart applications the driver, customer need is our focus. This is quite to the contrary of available solutions, which are promoting digitalisation as primary focus. Customer need is profitable production, with



ANDRITZ automation installed at Sun Paper Yanzhou (two 2000 m/min tissue machines).

quality, productivity and sustainability constraints. Our products in this segment already deployed at pulp & paper mills provide information to mill staff where it is needed, and are able to steer processes well ahead of substantial hick-ups due to prediction capabilities derived out of data analytics.

SEEING THE BIGGER PICTURE

The customer's challenge is to find a service partner who understands the customer's equipment, processes, and procedures and knows the complete production process and the factors of influence. There are many "maintenance" companies. Unfortunately, many of these companies do not understand the unique processes, equipment demands, and safety requirements of a paper mill. Based on its long-term experience and tradition as a paper machine supplier ANDRITZ AG helps – from replacement parts to comprehensive service programs – protect and extend the life of equipment and lower lifecycle costs. ■



A perfectly maintained tissue machines leads to cost optimized production at highest quality.



Johannes Kraxner, ANDRITZ Pulp & Paper

“The right service helps to improve the efficiency of your tissue machine and keep maintenance costs to a minimum.”

“Yankee service starts by being near the customer, ready to act. We accompany the customer through the complete Yankee lifecycle.”



Erwin Walcher, ANDRITZ Pulp & Paper