

issue 67

met

CHINA'S TISSUE
INDUSTRY:

GROWTH, GAPS, AND GAME- CHANGERS

Deal the Right Cards:
**Mastering Tissue
Drying Solutions**

WORLD'S FIRST:
100% Bamboo Tissue
Hits Mass Production



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**A.Celli Paper and ANDRITZ
join forces for the paper industry**

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TÜRKİYE

General Nonwovens partners with A.Celli in EUR 40 million growth strategy

As part of its EUR 40 million investment plan, General Nonwovens has once again chosen A.Celli Nonwovens as its strategic partner for the supply of high-performance machinery for a new line dedicated to technical textiles. The new production line will serve diversified markets such as automotive, filtration, and home care, expanding the company's reach beyond its core hygiene segment.

A.Celli's scope of supply includes E-WIND® winder, slitter rewinder along with fully automated core and shaft handling systems and the SLITTOMATIC® slitting solution.

The partnership builds on a relationship dating back to 2003. "We value A.Celli not just as a supplier, but as a long-term partner who has played a vital role in our development," stated Alican Yilankirkan, board member of General Nonwovens.

"Over the years, they have shown an outstanding ability to align their technological solutions with our evolving needs, enabling us to stay ahead in a competitive market. Their responsiveness, attention to detail and dedication to long-term support go well beyond industry standards. A.Celli's expertise extends beyond hygiene; they bring significant value to technical textiles as well—especially in areas where precision, such as advanced tension control, accuracy and digital integration, is critical. Their solutions are also designed with energy efficiency and sustainability in mind. That's precisely why we selected them again for this new project.

"As we enter a new phase of growth, we are proud to strengthen a collaboration built on shared vision and mutual respect."



General Nonwovens invests in A.Celli Nonwovens E-WIND® machinery for roll winding and rewinding.

Valmet to deliver fifth tissue line to Lila Group

Valmet is to supply a complete Valmet Advantage DCT 200 tissue line to the Turkish tissue manufacturer Lila Group's new mill in Erzurum, in the eastern part of Turkey. The TM 5 line will be equipped with stock preparation, a rewinder, and an extensive automation package to achieve high efficiency and low energy consumption in production. Start-up is planned for 2026.

TM 5 will have a width of 5.6 meters and a design speed of 2,200 meters per minute, adding a capacity of 70,000 tons of tissue products for the domestic and export markets.

Valmet has previously delivered four Advantage DCT 200 tissue lines to Lila Group's mill in Corlu, Tekirdag, in Turkey.

"We have had a long-lasting partnership with Lila Group and are proud to have been part of their success in Turkey from the very beginning. It is an honor to be selected as a partner for the next phase of their expansion journey and to deliver to a brand-new site in Turkey," says Björn Magnus, Sales Director, EMEA, Paper business line, Valmet.

Daio Paper exits the Turkish market

Japan's Daio Paper Corporation has officially exited the Turkish market, transferring all its local brands, including Komili, to Turkish conglomerate Evyap Holding. The move ends Daio's five-year presence in Türkiye, which began with its \$26.4M acquisition of Özen Kişisel Bakım in 2020. Rising costs and fierce competition prompted the withdrawal.

Following the acquisition, Daio quickly established a local presence with products such as baby diapers, sanitary pads, and wet wipes, operating under its subsidiary, Elleair International Turkey Kişisel Bakım Ürünleri Üretim A.Ş.

Finalized in June 2025, the deal transfers Daio's Turkish subsidiary, Elleair International Turkey, to Evyap Holding, split between its hygiene and soap divisions. The transaction was structured so that 70% of the shares went to Evyap Hijyenik Ürünler Sanayi ve Ticaret A.Ş. and 30% to Evyap Sabun Yağ Gliserin Sanayi ve Ticaret A.Ş., both subsidiaries of Evyap.

Evyap, known for Arko, Duru, and Evy Baby, strengthens its market position through this acquisition as it integrates Komili and other brands into its portfolio.

Daio, meanwhile, has stated that the transaction will have no material impact on its consolidated financial results, signaling a clean break as it refocuses on other international markets.



Daio Paper sells operations and brands in Türkiye to Evyap Holding



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We really look forward to collaborating with forward-thinking businesses within the tissue and paper industry, looking to innovate and grow in the hygiene and nonwoven segments.

Whether you're exploring new technologies, seeking efficient project execution, or aiming to enhance your market presence, Investkonsult Sweden is your trusted partner. Reach out to us to discover how we can help your business achieve its goals in these growing markets.

Below please find a small selection of the used/second-hand machinery and equipment that we currently can offer directly from our warehouses, or from factory floors:

559-0011 1 x Protner/Synchropack wet wipe line, Width: 400mm YOC: 2004 2005

For producing wipes in several sizes. Protner type: Multi-NW HOL with Synchropack type 900 WP

559-0013 1 x Kansan / Dynamic Plus wet wipe line, YOC: 2012

Complete wet wipes production with Kansan converting machine, Dynamic Plus packaging and plastic lid robot.

593-0042 1 x Joa pull-up pants diaper line, Type: J6S-TP YOC: 2005

Complete line for baby training pants/pull-ups, in 3 product sizes M, L and XL, speed up to 400 ppm

594-0018 1 x Fameccanica femcare line, Type: FNL-8 YOC: 2005

Fully automatic production line for sanitary napkins with fluff core. Speed: 700 ppm, 240 mm (regular size).

595-0019 1 x Joa light-inco production line, YOC: 2002/2024

Complete line for light-inco products with fluff core for 3 sizes - Normal, Extra and Super. Speed 400 ppm

595-0017 1 x Joa open type adult diaper line

Full servo line for production of adult diapers at up to 250 ppm. 2 sizes included - L 930 mm and XL 1010 mm

595-0020 1 x SSP combo-line, adult diapers and underpads, yoc: 2004

Fully refurbished in 2019, speed 170 m/min

596-0017 1 x Tekma underpad line, Type: TR-98 YOC: 1990s

Complete line for production of pet-pads/underpads in five sizes. Bargain price.

Please contact us for further info

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absorbent hygiene industries

TÜRKIYE

Turkuvaz enhances baby diapers portfolio with ANDRITZ absorbent core upgrade

ANDRITZ has completed a service retrofit for the Turkish company Turkuvaz at its Sakarya plant, integrating diversion channel technology into its baby diaper lines. This upgrade enables Turkuvaz to produce game-changing diapers with enhanced core absorption and maximum comfort for babies.

In addition to improved wearability and a better fit for babies, the incorporation of channel technology ensures superior performance in terms of rewet and acquisition time. It also enables more even distribution throughout the core, reducing the so-called sagging effect. Furthermore, raw material costs are lowered compared to conventional diaper cores.

Sedat Mala, General Manager of Turkuvaz, stated: "This project was crucial for the diversification of our product offering, and having a responsive and customized solutions provider was essential for our business. We are confident that this collaboration will significantly strengthen our market position and drive future growth."

Turkuvaz already operates nine converting lines and one spunlace line from ANDRITZ, underlining the company's confidence in ANDRITZ as a reliable and innovative partner.



Turkuvaz quality control team and ANDRITZ service manager at one of the upgraded converting lines (from left to right): Ülay Tören Yılmaz, Marco Buontempo (ANDRITZ), Simge Kara, Zehra Özdamar. Image: ANDRITZ

AUSTRIA

ANDRITZ acquires A.Celli Paper

A.Celli Paper has officially joined the ANDRITZ Group.

This acquisition marks a significant milestone for both companies, strengthening their position in key markets across Europe and Asia. By integrating A.Celli Paper's deep expertise in tissue, paper, and board production with ANDRITZ's global reach and advanced technology portfolio, the partnership is poised to deliver enhanced value to customers worldwide.

A.Celli Paper brings decades of specialized experience in supplying winders, rewinders, roll handling and packaging systems, tissue machines, and services. Its acquisition of PMT has further expanded its capabilities. Operating with over 100 industry professionals, the company generates annual revenues of approximately €70 million.

With aligned networks of suppliers and partners strategically located near production facilities, both organizations are equipped to respond swiftly to evolving market demands and seize new opportunities.

A.Celli Group and A.Celli Nonwovens remain fully independent, owned by the Celli family.



ANDRITZ Acquires A.Celli Paper. Image © Andrea Simonetti

AUSTRIA

ANDRITZ acquires Diamond Power

ANDRITZ has signed an agreement to acquire Diamond Power International, LLC (Diamond Power) businesses, including its subsidiaries and manufacturing locations, from U.S.-based Babcock & Wilcox Enterprises, Inc. (B&W). Diamond Power is a designer and manufacturer of advanced boiler cleaning systems. The acquisition will significantly strengthen ANDRITZ's recovery and power boiler service business.

Diamond Power has more than 120 years of experience in the supply of boiler cleaning technologies for the pulp, paper and power industries. It has locations in 15 countries, along with manufacturing bases in Lancaster, Ohio, USA and Dumbarton, Scotland, UK. The company achieves annual revenues in the range of 100 million euros with a team of 400 experts.

Diamond Power boiler cleaning systems and services complement ANDRITZ's capabilities for the supply and maintenance of boilers. The company's comprehensive sales and service network will further strengthen ANDRITZ's global presence, offering potential for future growth from boiler-related products with a high share in services.

Jarno Nymark, ANDRITZ Executive Board member responsible for the Pulp & Paper business area, says: "With the variety of fuels increasing, cleaning the inside of recovery and power boilers is becoming more important all the time. This acquisition is driven by our commitment to providing our customers with comprehensive and innovative solutions for the efficient and reliable operation of boilers throughout their lifecycle."

In addition to cleaning technologies, Diamond Power provides a variety of process optimization products, including monitoring systems such as high-definition and infrared light cameras, process gas temperature measuring pyrometers, and temperature measurement software.

"We have had a strong relationship with ANDRITZ for many years and are pleased to announce this transaction," said Christopher Riker, B&W Executive Vice President and Chief Operating Officer. "We're committed to ensuring a smooth transition of this business over the weeks ahead and look forward to continuing to work with the ANDRITZ and Diamond Power team to support customers in the global power and industrial markets."



ANDRITZ acquires Diamond Power.

INDIA

Tamil Nadu enters tissue market

Tamil Nadu Newsprint & Papers Ltd. (TNPL) has selected ANDRITZ to supply a state-of-the-art tissue production line for its Unit II mill in Mondipatti Village, Tamil Nadu, India. This investment marks the Indian paper and board producer's entry into the tissue market.

Dr. Sandeep Saxena, I.A.S., Chairman & Managing Director of TNPL, says: "Our vision is to adopt state-of-the-art technology and be the world's most sustainable brand in the production of eco-friendly paper grades. When we decided to enter the tissue industry it was important for us to select a partner that stands for innovation, expertise, and reliability."

ANDRITZ will supply a PrimeLine™ S 2000 tissue machine to produce high-quality tissue grades from the mill's own hardwood pulp at a maximum capacity of 34,000 t/a. The machine will have a design speed of 2,000 m/min and a working width of 2.85 m. It will be equipped with the latest generation PrimePress XT Evo shoe press which stands for optimum bulk levels at highest sheet dryness in the market. In combination with the 20 ft. steel Yankee and the steam-heated hood it will enable highly efficient drying with substantial energy and cost savings compared to conventional drying sections with gas-heated hoods.

The ANDRITZ scope also includes the stock preparation system, fabrics and rolls, automation and electrification, as well as a package of high efficiency stock, process and fan pumps. All pumps will be manufactured, assembled, and tested at the ANDRITZ Chennai pump factory. ANDRITZ will also be responsible for detail engineering.

Ashutosh Batra, Vice President Sales at ANDRITZ India, says: "Having supplied stock preparation equipment, a deinking plant and a complete chemicals recovery island to TNPL, we are proud that our successful partnership is continuing with this innovative tissue project."



Tamil Nadu Newsprint & Papers Ltd. will enter the tissue market with a state-of-the-art ANDRITZ PrimeLine™ tissue machine. Photo: Gerald Steiner, Senior Vice President of ANDRITZ Paper & Tissue, and Dr. Sandeep Saxena, Chairman & Managing Director of Tamil Nadu Newsprint & Papers Ltd. Image: ANDRITZ

UZBEKISTAN

International Paper successfully started up ANDRITZ spunlace line

ANDRITZ has successfully started up a complete neXline spunlace line for International Paper LLC Uzbek at its plant in Tashkent, Uzbekistan.

The new production line enables International Paper LLC to produce high-quality spunlace wipes, both under its own brand and for other converters. This expansion opens new market opportunities, addressing the growing demand for spunlace wipes in Uzbekistan and neighboring countries. Additionally, the project aligns with the company's sustainability goals by reducing its carbon footprint through minimized intercontinental shipments and boosting local employment in the Tashkent area.

The state-of-the-art neXline spunlace line features advanced technology, including TT cards, making it the most powerful equipment of its kind in Central Asia. With a production capacity exceeding 10,000 tons annually, it is capable of processing both viscose and polyester fibers. The fully integrated line allows International Paper LLC to vertically integrate its spunlace roll goods production with its existing wipes converting capacity.

Zakirov Sanjar, one of the founders of International Paper LLC, says: "This new equipment will help us scale our business. ANDRITZ has supported us at every stage of this ambitious project, enabling us to maintain our leading position in the regional market while ensuring excellent product quality."

Operating under the ELMA brand since 2003, International Paper LLC is one of the largest producers of sanitary and hygienic papers in Uzbekistan, as well as in Azerbaijan, Kazakhstan, Turkmenistan, Tajikistan, and Kyrgyzstan.



neXline spunlace line by ANDRITZ Nonwoven in International Paper LLC Uzbek's plant in Tashkent, Uzbekistan. Image: ANDRITZ

JAPAN

ZUIKO expands into spunlace nonwovens with UNITIKA acquisition

ZUIKO Corporation, through its wholly owned subsidiary COTEX Corporation, has entered into a basic agreement to acquire the spunlace nonwoven fabric business from UNITIKA LTD., a leading Japanese manufacturer in the market.

The acquisition aligns with ZUIKO's Fourth Medium-Term Business Plan, which emphasizes accelerating new business development and leveraging synergies with the company's established expertise in hygiene products manufacturing machinery. COTEX, established in 2024, has focused on developing and manufacturing cotton products for hygiene applications. UNITIKA, a pioneer in spunlace nonwoven fabric since 1993, is recognized for products that are gentle on the skin and offer excellent moisture absorption and retention.

By integrating UNITIKA's spunlace technology, ZUIKO aims to expand into the manufacturing and sale of cotton-based spunlace nonwovens, targeting both existing customers and new opportunities in domestic and international hygiene markets. The transferred business recorded net sales of approximately 4 billion yen for the fiscal year ended March 31, 2025.

ZUIKO plans to continue serving existing customers of the transferred business while expanding its reach to new markets. The company will also focus on enhancing product value through research and development of highly processable cotton spunlace nonwoven fabrics for hygiene products.



ZUIKO acquires UNITIKA.

ONE FOLD **AHEAD!**



USA

Solenis and NCH Corporation to join forces

Solenis and NCH Corporation (NCH) have entered into a definitive agreement to merge the NCH business with Solenis. Under the terms of the agreement, Solenis will acquire 100% of NCH stock, creating a more diversified, customer-centric provider of water and hygiene solutions. The Levy Family, owners of NCH since its founding in 1919, will become the largest minority shareholder in Solenis.

The transaction is expected to close by the end of 2025. Solenis and NCH will continue to operate strictly as independent companies until the transaction is complete.

Headquartered in Wilmington, Delaware, Solenis is a leading global provider of water and hygiene solutions. The company was acquired by Platinum Equity in 2021. NCH is the quality leader and trusted on-site expert in middle-market water treatment and industrial solutions.

“The merger presents a unique opportunity to unite our complementary businesses. By leveraging Solenis’ global reach and NCH’s established presence in the middle market, we can enhance the customer experience through Solenis’ 360 approach. Joining forces creates a more diversified business with increased scale, an expanded global footprint, and superior customer service capabilities.” said John Panichella, Chief Executive Officer, Solenis.

In a statement, the Levy family expressed their commitment to the company’s future: “Our grandfather started NCH over a century ago to provide customers with the highest quality solutions, served by the best trained professionals. Since then, our family and associates have diligently pursued that vision and merging with Solenis is the best way to take a great business and make it even better.”



Solenis and NCH Corporation to join forces.

JOA acquires Cellulose Converting Solutions

Curt G. Joa, Inc. (JOA) is set to acquire Cellulose Converting Solutions SpA (CCS), a leading Italian machine manufacturer, in a strategic move to strengthen its European presence and broaden its global portfolio. The deal is expected to close in Fall 2025, pending regulatory approvals.

Rick Michaletz, President of JOA said: “This acquisition is a significant moment for us. We’re merging two family-owned businesses with incredibly compatible cultures. What’s truly exciting is the immediate and fully complementary machine offering this creates – JOA’s high-speed capabilities coupled with CCS’s mid-speed expertise provides our customers exactly what they need. Geographically, we’re equally complementary, ensuring we can provide exceptional global service and drive a broader use and integration of our intellectual property.”

Fabio Quadrio, President and CEO of CCS commented: “Becoming part of the JOA “family” is, for me, the fulfillment of a dream I’ve carried in my heart for a long time. With JOA, I’ve found a home that truly shares our culture: tireless dedication, genuine respect for people, attention to every detail, and — above all — a real focus on customers, who have always been, and will always be, at the center of everything we do. We’re united by a shared vision for the future and a strong drive to innovate — to push boundaries, to create solutions that don’t just meet market needs but anticipate them with intelligence and care.”

.....

PERU

Papelera Reyes leads global rollout of Valmet’s Warm-up Next process

Papelera Reyes has become the first company worldwide to implement Valmet’s Warm-up Next process, installing the advanced embossing technology at its Papel Paracas facility in Callao, Peru.

Designed for peak performance in demanding environments, Warm-up Next takes embossing to the next level, delivering up to 50% more caliper, increased softness, reduced paper consumption, up to 60% energy savings, and improved operational safety while maintaining softness, absorbency, and tensile strength, all without using water.

“With the installation of the Valmet Warm-up Next process, we take a natural step forward in the shared journey of innovation and growth we have built with Valmet,” states Sebastian Reyes, Operations Manager, of Papelera Reyes that concludes “This next-generation hot embossing solution sets a new benchmark in the industry, allowing us to ensure consistently high product standards while adapting swiftly and effectively to the demands of a rapidly changing market.”



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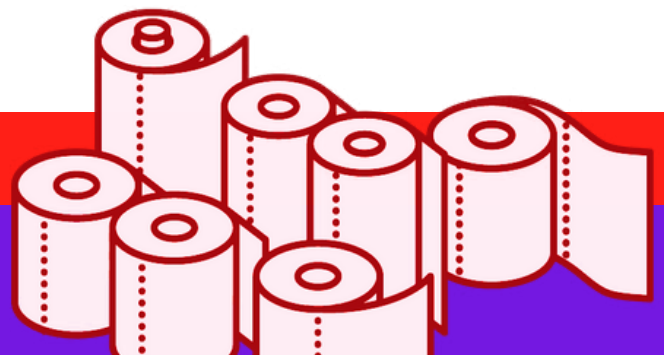
- **Connect with 50+ industry-leading exhibitors** at one of Asia's premier tissue and towel events
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- **Tap into Southeast Asia's tissue market**—reaching \$29.64B by end of 2025
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THE WORLD'S FIRST!

LONGJING PAPER SUCCESSFULLY
MASS-PRODUCED *PrimeLineHyTAD*
TEXTURED TISSUE MADE FROM
100% BAMBOO PULP



In July 2025, another world record has been set in the project of the world's first *PrimeLineHyTAD* (later *HyTAD*) tissue machine supplied by ANDRITZ to Chongqing Machinery & Electric Group Longjing Paper. Longjing Paper has successfully mass-produced *HyTAD* high-end kitchen towel with 100% bamboo pulp as raw material on this machine. Relying on China's 6 million hectares of bamboo forest sustainable resources, this move is the first of its kind in the world, which not only opens up a new era of sustainable development in the tissue industry, but also provides consumers with innovative choices that take into account environmental protection and high-end.

BREAKING THE MOMENTUM OF BAMBOO, INNOVATION AND BREAKTHROUGH

Based on the blueprint of the world's high-end wiping paper production base, Longjing Paper boldly innovates and subverts the industry's raw material tradition. Based on the results and experience of bamboo pulp trials at the ANDRITZ *PrimeLineTIAC* Tissue Innovation&Application Center, the breakthrough of using bamboo pulp instead of wood pulp overcame the technical barriers in a very short time and realized the mass production of *HyTAD* high-end kitchen towel. The first batch of pure bamboo pulp kitchentowel has passed strict quality control, and the finished product can meet the basic weight range from 20-30g/m², and the quality indicators are close to and some of them are better than similar wood pulp products.

Longjing Paper is accelerating the layout of bamboo pulp and paper differentiation track, and the company is now opening a multi-dimensional cooperation path to industrial partners, including bulk supply of jumbo roll, undertaking high-end brand wiping paper OEM, and supporting in-depth R&D and differentiated customization, so as to promote the value reshaping of the industrial chain with a replicable green intelligent manufacturing paradigm.



Longjing Paper's first roll of 100% bamboo pulp *PrimeLineHyTAD* kitchen towel

Mr. Zhang Yun, Chairman of Longjing Paper, said: "We are committed to transforming the ecological value* of China's bamboo forests into a green experience for consumers through 100% high-end bamboo pulp paper products – which is not only the core driving force of Longjing's 'Green + High-end' strategy, but also our practical response to the national 'dual carbon' goal. We would like to express our sincere gratitude to ANDRITZ for providing the world's leading high-end paper machine equipment and professional technical guidance. With the support of ANDRITZ's team of experts, it took only one month from feeding to commissioning the kitchen paper quality of the leading brands on the market. At the same time, the stability of the paper machine is very good and easy to operate, which has laid a solid foundation for us to develop bamboo pulp paper products, which makes all this possible. "

We are committed to transforming the ecological value of China's bamboo forests into a green experience for consumers through 100% high-end bamboo pulp paper products.

WORK TOGETHER FOR A WIN-WIN SITUATION AND PROMOTE A GREEN FUTURE

The *PrimeLineHyTAD* tissue machine from ANDRITZ was successfully started up at Longjing Paper by the end of April 2025. With a width of 2.85 meters and a design speed of up to 1,500 m/min, the machine aims to produce textured tissue paper with similar *TAD* quality at lower energy consumption. The project also combines ANDRITZ *Metris* digital solutions to create a model for "green + high-end" industrial upgrading, setting a new benchmark for intelligent manufacturing in the global tissue industry.



ANDRITZ PrimeLineHyTAD tissue machine at Longjing Paper in Chongqing

Prior to the delivery of the machine, the ANDRITZ PrimeLineTIAC Tissue Innovation & Application Center conducted extensive experiments to verify product quality and machine performance. In view of the feasibility of replacing wood pulp with bamboo pulp, ANDRITZ successfully completed the test of 100% bamboo pulp in the HyTAD and TAD processes of the pilot machine and successfully delivered qualified paper samples, which provided key technical support for the industrialization of Longjing Paper. As the world's most advanced tissue pilot plant, the center is open to customers, suppliers and research institutes to develop and test innovative tissue solutions.

The unexpected and stable operation of the world's first PrimeLineHyTAD tissue machine and its high adaptability to customer needs confirm ANDRITZ's full-line expertise from concept design and equipment delivery to on-site service, demonstrating the synergistic advantages of "cutting-edge technology + R&D support+ localized service" provided by ANDRITZ. At this moment, a green papermaking revolution set off by bamboo fiber is sweeping the world from the shore of the Yangtze River.

CHONGQING LONGJING PAPER CO.

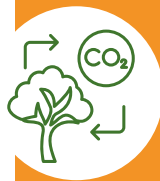
Chongqing Longjing Paper Co., Ltd was founded in 1907 as Longzhang Paper, located in Fengdu County, Chongqing City, focusing on the production and manufacturing of paper and paper products. The company's main products cover kitchen towel, wiping paper, toilet paper, facial tissues, boxed facial tissues and other paper products

ABOUT THE ECOLOGICAL VALUE OF BAMBOO RESOURCES

Fast-growing: bamboo is matured and harvested in 3-5 years, and the raw material renewal efficiency is 6 times that of wood



Carbon sequestration: 24.31 tons of carbon sequestration per hectare of moso bamboo (measured by the Chinese Academy of Forestry in 2024)



Sustainable: China's bamboo forest area is 6.01 million hectares (2025 data of the National Forestry and Grassland Administration), with an annual supply of 150 million tons of bamboo



CHINA'S TISSUE INDUSTRY: GROWTH, GAPS, AND GAME-CHANGERS

CHINA NATIONAL HOUSEHOLD PAPER INDUSTRY ASSOCIATION

China's economy remained resilient in 2024, with GDP rising 5.0% year-on-year to 135 trillion yuan, according to the National Bureau of Statistics. Within this context, the tissue paper industry continued to expand while undergoing structural adjustments, including the retirement of outdated facilities and select modern machines.

MARKET SIZE

According to the China National Household Paper Industry Association (CNHPA), China's total installed tissue paper production capacity reached 21.267 million tons in 2024, up 4.4% from the previous year. The industry added 1.648 million tons of new capacity, maintaining record output levels despite ongoing restructuring.

Annual production totaled approximately 14.505 million tons, with an average equipment utilization rate of 71.0%, down 1.2 percentage points year-on-year. Total factory sales reached 131.27 billion yuan, based on an average factory price of 9,050 yuan per ton (including exports). Domestic consumption stood at 13.181 million tons, with per capita usage climbing to 9.4 kg, well above the global average of 5.8 kg in 2023, as estimated by Fastmarkets.

The overall market size was approximately 155.07 billion yuan, reinforcing China's position as the world's largest producer and consumer of tissue paper.

SHIFTING MARKET DYNAMICS

China's tissue industry continued its structural transformation in 2024, marked by a modest contraction in its parent roll manufacturing base and an accelerated phase-out of outdated capacity. The number of producers fell to 190, with approximately 240 factories, down from 208 manufacturers and 257 factories the previous year.

This decline reflected the exit of smaller companies and the retirement of low-efficiency assets.

A total of 141 machines were eliminated, suspended, or converted, including 29 modern crescent and vacuum cylinder units (438,000 tons) and 112 small-scale machines (292,000 tons). By year-end, 126 modern machines had been shut down, representing 2.242 million tons of capacity.

Industry concentration continued to rise: 98 companies reported annual capacity above 50,000 tons, one fewer than in 2023, largely due to RGE Group's acquisition of Vinda and the consolidation of Asia Symbol's tissue business.

Leading national brands remained Mind Act Upon Mind, Vinda, Breeze, and C&S. Meanwhile, the number of small-scale companies (under 20,000 tons) fell to 18, five fewer than the previous year, underscoring their limited competitiveness.

BRAND CONCENTRATION

The top 10 tissue paper brand manufacturers accounted for 39.4% of China's total installed capacity in 2024, up from 37.7% the previous year. Among them, the four leading producers—Hengan, Vinda (including Asia Symbol), Gold Hongye (APP), and C&S—held a combined capacity of 6.615 million tons, representing 31.1% of the national total (2023: 30.2%). According to Fastmarkets, these four ranked 4th, 5th, 8th, and 11th globally in 2023, and 1st through 3rd and 6th within Asia. Leading national brands continued to include Mind Act Upon Mind, Vinda, Breeze, and C&S.

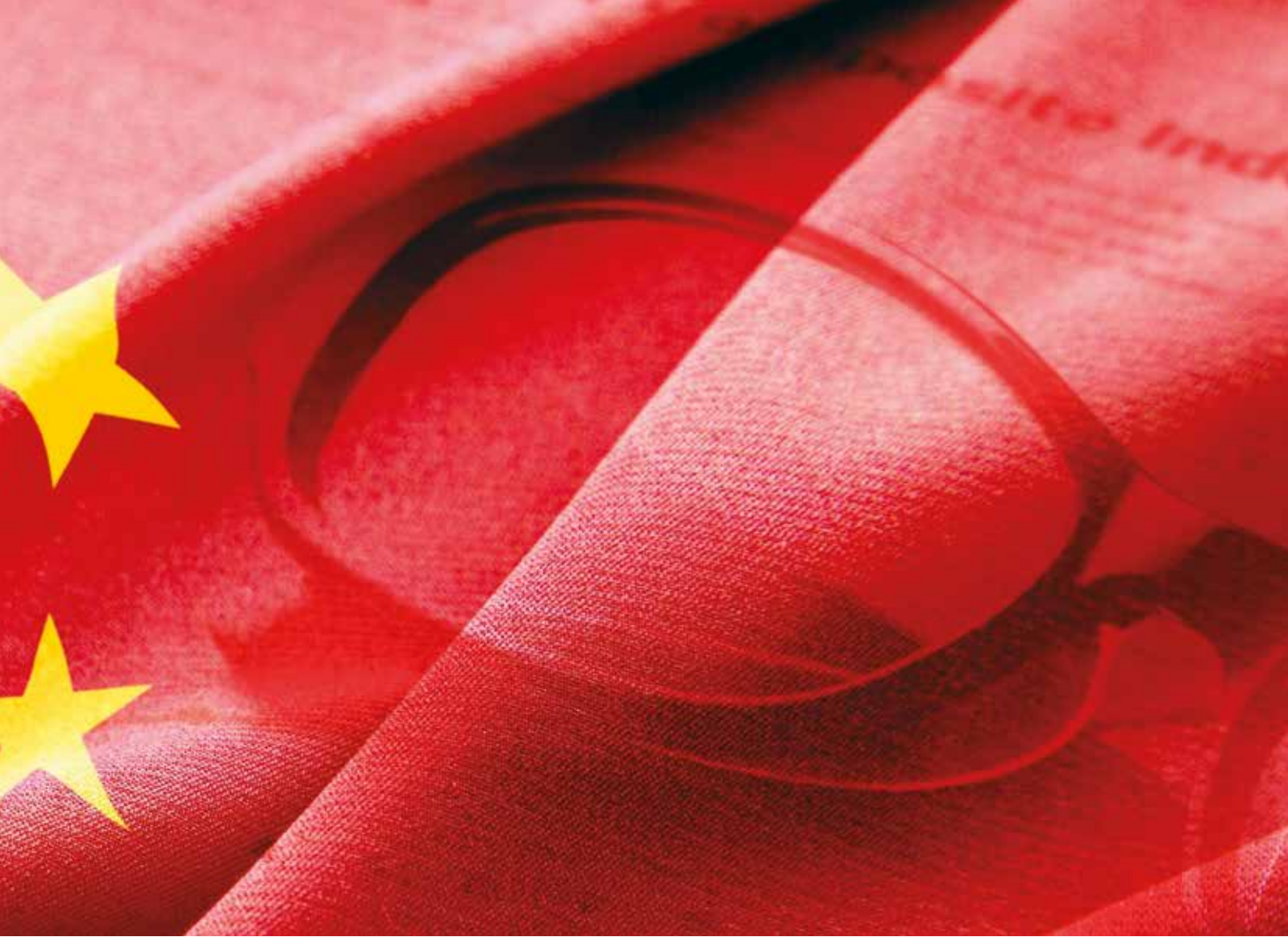


Table 1: Capacity and number of tissue parent roll manufacturers in China (2021-2024)

Capacity/10000 tons		>100	50(ex)~100(in)	10(ex)~50(in)	5(in)~10(in)	2(in)~5(ex)	<2
Number of Companies	2024	5	1	28	64	74	18
	2023	5	1	29	64	86	23
	2022	5	1	27	63	91	26
	2021	4	2	24	65	88	58

Table 2: Top 10 tissue paper brand manufacturers in 2024

No.	Company	Brands	Designed Capacity /10000tpy
1	Hengan International Group Co., Ltd.	Mind Act Upon Mind, Rouying	174.5
2	Vinda Paper (China) Co., Ltd. (Including Symbol)	Vinda, Flower	177.5
3	Gold Hongye Paper Group Co., Ltd.	Virjoy, Breeze, Zhenzhen, Emporia	213.0
4	C&S Paper Co., Ltd.	C&S, Sun	96.5
5	Fujian Botare Network Technology Co., Ltd.	Botare	41.1
6	Libang Group Co., Ltd.	Libang, Libang Living, Libang Gangxing	38.0
7	Baoding Yusen Health Supplies Co., Ltd.	YuSen, BaiLi, WATSOFT	38.0
8	Hebei Jinboshi Group Co., Ltd.	Kimbos, Soft Lady, Doctor.Z	33.2
9	Sichuan Vanov New Materials Co., Ltd.	Babo	16.4 (bamboo pulp tissue)
10	Shanghai Welfare Group Co., Ltd.	Zhiyin	10.0
	Total Capacity		838.2

CAPACITY EXPANSION AND COMPETITIVE PRESSURE

China's tissue paper industry experienced robust expansion in 2024, as 30 companies commissioned 70 machines, collectively adding 1.648 million tons of new production capacity. While slightly below 2023 levels, it remained at a historically high level. This expansion continues to outpace demand, intensifying competitive pressure. Leading contributors include Hengan, C&S, Botare, Libang, Yusen, Jinboshi, Lee & Man, Taison, and Sun Paper.

Since the introduction of high-end models such as TAD-like machines in 2021 and TAD machines in 2023, China's tissue industry has made notable strides in product softness, absorbency, and fluffiness—meeting rising consumer demand for comfort and quality. The development of the high-end sector and differentiated competition among companies continue to promote the development of TAD, TAD-like, and other high-end models in China. In 2025, Hengan started up its second Toscotec TAD tissue machine, while Zhongnan Paper in Henan started up a domestic Baotuo TAD tissue machine.

INTEGRATED EXPANSION

Leveraging self-produced pulp, Lee & Man Paper Group entered the tissue paper industry in 2014. Since then, companies such as Taison, Sun Paper, Shaoneng, and Liansheng have also gradually entered the sector. These companies benefit from integrated pulp and paper operations, focusing mainly on the production and sale of tissue parent rolls. Across the value chain, brand manufacturers, post-processing companies, and integrated pulp-paper companies are increasingly collaborating, each leveraging their strengths in raw materials, parent roll production, and market expansion, to shape a new development pattern for the industry.

Table 3: Five tissue parent roll manufacturers with integrated pulp and paper operations in 2024

No.	Company	Designed Capacity/10000tpy
1	Lee & Man Tissue Manufacturing	147
2	Taison Technology (Group)	142.0
3	Shandong Sun Household Paper	49.5
4	Shaoneng Group	38.0
5	Liansheng Pulp and Paper (Zhangzhou)	29.0
	Total Capacity	406.0

EQUIPMENT AND MANUFACTURING TECHNOLOGY

China's tissue paper industry has steadily improved equipment levels through the import of modern tissue machines, adoption of domestically made machines, and the phased elimination of outdated equipment. Modern production now dominates the industry, and advances in Chinese machine manufacturing—combined with cost advantages—have led to a growing share of China-made machines, surpassing imported machines since 2017.

In 2024, Chinese tissue machine manufacturers launched 66 modern machines with a total capacity of 1.538 million

tpy, representing 93.3% of the modern capacity introduced that year. Leading suppliers included Qingliang (29 machines), Baotuo (13), Changda (9), and Via (8).

By the end of 2024, eight imported TAD and TAD-like machines had been launched, totaling 280,000 tons.

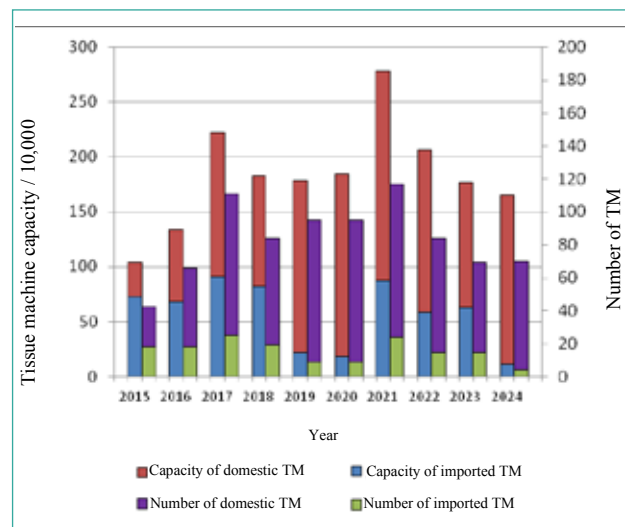


Figure 1: Proportion of imported and China-made tissue machines launched (2015 to 2024)

Since 2021, the total capacity of China-made modern tissue machines has exceeded that of imported machines. As of the end of 2024, 667 China-made machines remained in operation, accounting for approximately 59.1% of total tissue paper capacity. Large machines with capacities around 60,000 tpy (width 5,600 mm, speed $\geq 1,800$ m/min) remain mainly imported. No new machines of this size were launched in 2024, and of the 90 such machines installed in China to date, 82 remain in operation, totaling 4.88 million tpy, about 22.9% of total industry capacity.

Due to their limited flexibility and higher costs, these large machines are less suited for differentiated product lines. Future investments in 60,000 tpy machines are expected to remain concentrated among a few large-scale companies.

“66 modern machines were launched with a total capacity of 1.538 million tpy.”

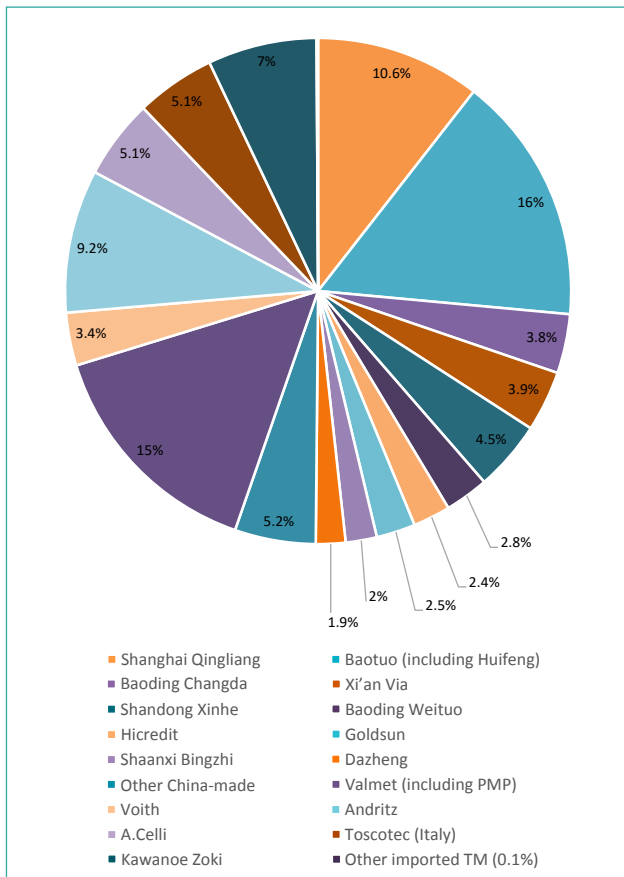


Figure 2: 2024 capacity distribution: imported and China-Made modern tissue machines

TISSUE PRODUCT BREAKDOWN

Based on CNHPA's 2024 company survey samples, toilet tissue remains the dominant category in China's domestic consumer tissue market, accounting for approximately 46.7% of total share. Other product segments follow: facial tissue (34.5%), hand towel (6.2%), handkerchief tissue (4.8%), paper napkins (4.7%), kitchen towels (1.8%), and liner tissue for hygiene products (1.3%). Notably, facial tissue, handkerchief tissue, paper napkins, kitchen towels, and hand towels all saw year-on-year increases in market share.

Facial tissue consumption continues to rise steadily, driven by its convenience, comfort, and versatility across multiple usage scenarios. Innovations such as high-end embossed and lotion-infused tissues have further supported this growth, aligning with consumer demand for premium, comfortable products.

Kitchen towel usage has also expanded, supported by the introduction of products made with advanced technologies like TAD and hybrid TAD-like processes. These offer enhanced fluffiness and absorbency, appealing to consumers seeking "special paper for special use." Market promotion and product diversification have helped accelerate adoption.

Hand towel products are increasingly used in high-traffic environments such as shopping malls, hotels, and airports. As consumers resume outdoor activities, demand for hand towels in commercial settings has grown, reinforcing their role in public hygiene and convenience.

“Toilet tissue dominates China's consumer tissue market.”

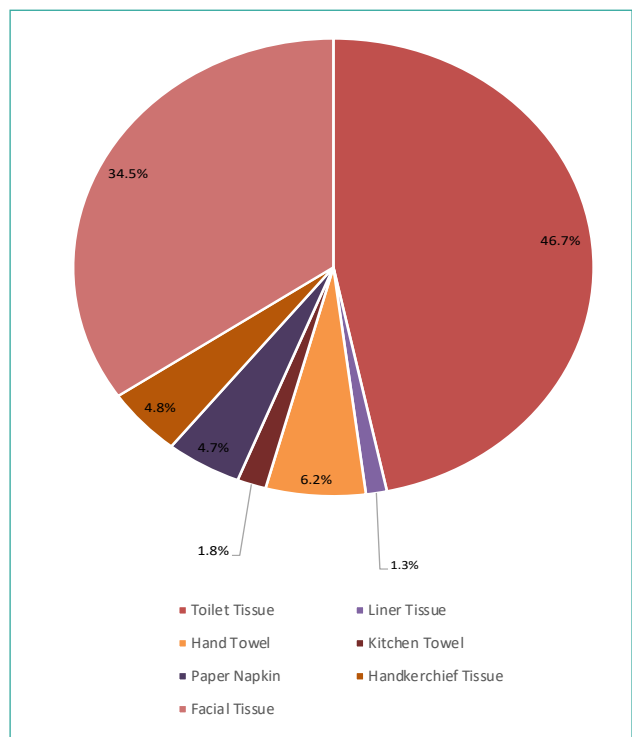


Figure 3: Tissue paper product structure in 2024 (based on consumption)

FIBER USAGE

According to CNHPA's 2024 survey of tissue parent roll manufacturers, wood pulp remained the dominant fiber type, with both usage and share continuing to rise—well above the 42% average seen across the broader paper-making industry. Among non-wood pulps, bamboo pulp usage increased, bagasse pulp remained stable, and reed pulp saw a slight uptick, though its overall share remained minimal. No manufacturers reported using wheat straw or rice straw pulp. Wastepaper pulp usage rose marginally, but its proportion within the fiber mix held steady.

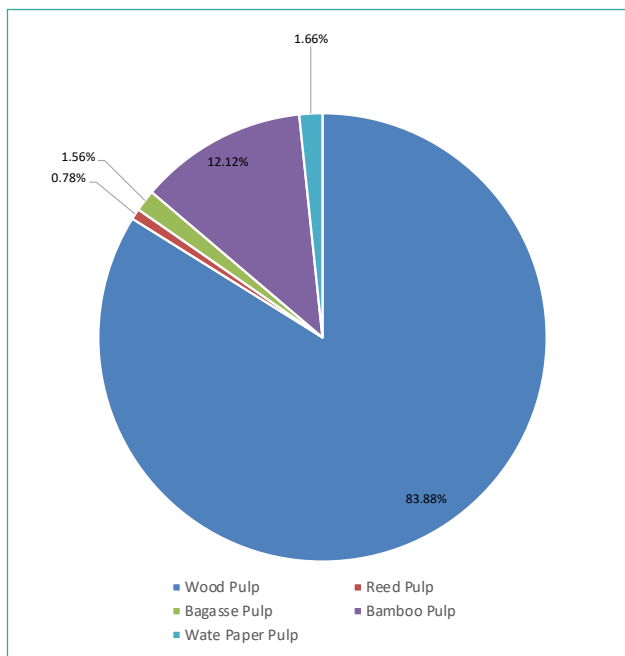


Figure 4 : Fiber Mix in the tissue paper industry (2024)

TRADE OVERVIEW

China's tissue paper trade remains predominantly export-oriented, with imports playing a minimal role due to sufficient domestic output and product variety.

Exports

In 2024, China exported 1.3635 million tons of tissue paper—approximately 9.4% of total production—marking a 22.5% year-on-year increase, according to China Customs. Export value reached USD 2.409 billion, up 1.5% from 2023. Table tissue and paper napkins led growth, with export volumes rising 28.6% year-on-year.

Finished products continued to dominate, accounting for 70.4% of total exports, although average prices declined compared with the previous year. Within this category, toilet tissue represented 29.2%, continuing its downward trend (30.1% in 2023; 33.7% in 2022). Facial tissue and handkerchief tissue maintained their combined share at 31.2%, remaining the largest segment. Table tissue and napkins rose slightly to 10.0%, reflecting a gradual shift toward higher-end product structures.

Top export destinations included the United States, Australia, and Japan, followed by Hong Kong, South Korea, the United Kingdom, Canada, Thailand, Malaysia, and the Philippines.

“China exported
1.3635 million tons
of tissue paper.”

Imports

Imports remained limited, with little impact on the domestic market. In 2024, China imported 39,600 tons of tissue paper—a slight increase from the previous year. Parent rolls accounted for 89.2% of total imports.

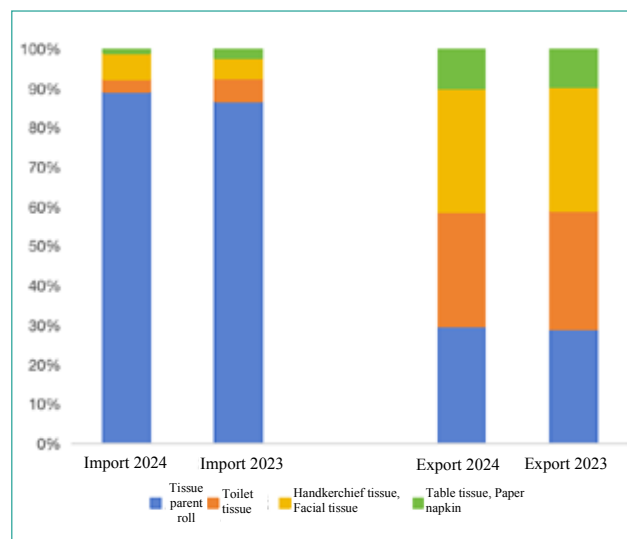


Figure 5: Proportions of various imported and exported tissue papers (2023-2024)

OPPORTUNITIES AND CHALLENGES

Opportunities

- Rising per capita consumption unlocks potential in segmented markets:** Per capita tissue paper consumption in China continues to grow yet remains well below levels in developed regions: 27.4 kg in the U.S. and 16–17 kg in Western Europe and Japan (2023, Fastmarkets). This gap signals long-term growth potential. As products evolve toward premium, specialized, and scenario-based applications, manufacturers are encouraged to pursue differentiated offerings to avoid homogenized competition.
- Increasing industry concentration drives a new market landscape:** The number of tissue parent roll producers is declining, while industry concentration is rising. Pulp-paper integrated companies are expanding capacity, accelerating the formation of a new market structure and reinforcing industrial and supply chains. Enhanced collaboration in production and logistics offers opportunities for collective growth.
- Export market expansion supports domestic production:** Since 2022, China's tissue paper exports have expanded rapidly, providing a vital outlet to absorb domestic production. Companies are advised to actively pursue overseas markets to better balance supply and demand.
- Policy guidance promotes green and low-carbon transformation:** On August 11, 2024, the State Council issued the Opinions on Accelerating the Comprehensive Green Transformation of Economic and Social Development. These guidelines promote energy-saving technologies, clean production, and process upgrades across industries—including papermaking. For tissue producers, this policy framework offers a clear path toward efficiency, emissions reduction, and high-quality development.

“Announced production capacity exceeds 10 million tons.”

Challenges

1. **Overcapacity intensifies competitive pressure:** According to CNHPA, announced production capacity for 2025 and beyond exceeds 10 million tons annually. This surge will heighten competition, requiring companies to expand distribution channels and improve operational efficiency to absorb excess output.
2. **Exposure to pulp price volatility:** As pulp remains the primary raw material, the industry is vulnerable to price fluctuations, which can impact profitability and production planning.
3. **Operational resilience and reputation management are critical:** To ensure sustainable growth, companies must strengthen management systems, enhance product quality, secure supply chains, and improve responsiveness to public opinion and crisis scenarios—especially in the social media era. These capabilities are essential to meet rising consumer expectations for quality and reliability.

MARKET FORECASTS

According to CNHPA estimates, factoring in planned 2025 projects, rising market demand, and improving living standards, China's tissue paper consumption is projected to reach 13.69 million tons in 2025. This equates to an annual per capita usage of approximately 9.7 kg, underscoring the industry's continued growth potential.

Table 4: Forecast on tissue paper market

Year	Consumption/ 10000t	Population/ 10000 persons	Per capita consumption/ kg
2011	540.2	134735	4.0
2012	577.5	135404	4.3
2013	618.9	136072	4.5
2014	660.1	136782	4.8
2015	736.0	137462	5.4
2016	787.6	138271	5.7
2017	851.1	139008	6.1
2018	889.6	139538	6.4
2019	960.7	140005	6.9
2020	1049.4	140005	7.5
2021	1161.8	141260	8.2
2022	1184.7	141175	8.4
2023	1246.5	140967	8.8
2024	1318.1	140828	9.4
2025	1369	140828	9.7

Source Attribution

This article is based in part on the “2024 Annual Report on Chinese Tissue Paper Disposable Products Industry” published by the China National Household Paper Industry Association. Some sections have been summarized, rewritten, or selectively presented for clarity or editorial consideration. All data tables and original analysis are credited to the source report.

Sustainability Standouts: Who's Leading the Green Shift?

In 2024, China's tissue sector made notable strides in environmental performance, with several companies earning national recognition for their green credentials. These achievements reflect a broader industry commitment to cleaner production, resource conservation, and long-term sustainability.



Green Factory Designation

Vinda Paper (Zhejiang), Sun Paper (Shandong), and Jinboshi (Hebei) were named official Green Factories by the Ministry of Industry and Information Technology (MIIT), alongside leading hygiene brands such as Hengan, Winner Medical, and Unicharm.



Water Efficiency Excellence

Shandong Hengan Paper achieved benchmark status with a water intake of just 4.95 m³/t and a 95% reuse rate, thanks to advanced recovery and filtration technologies.



Wastewater Recycling Leaders

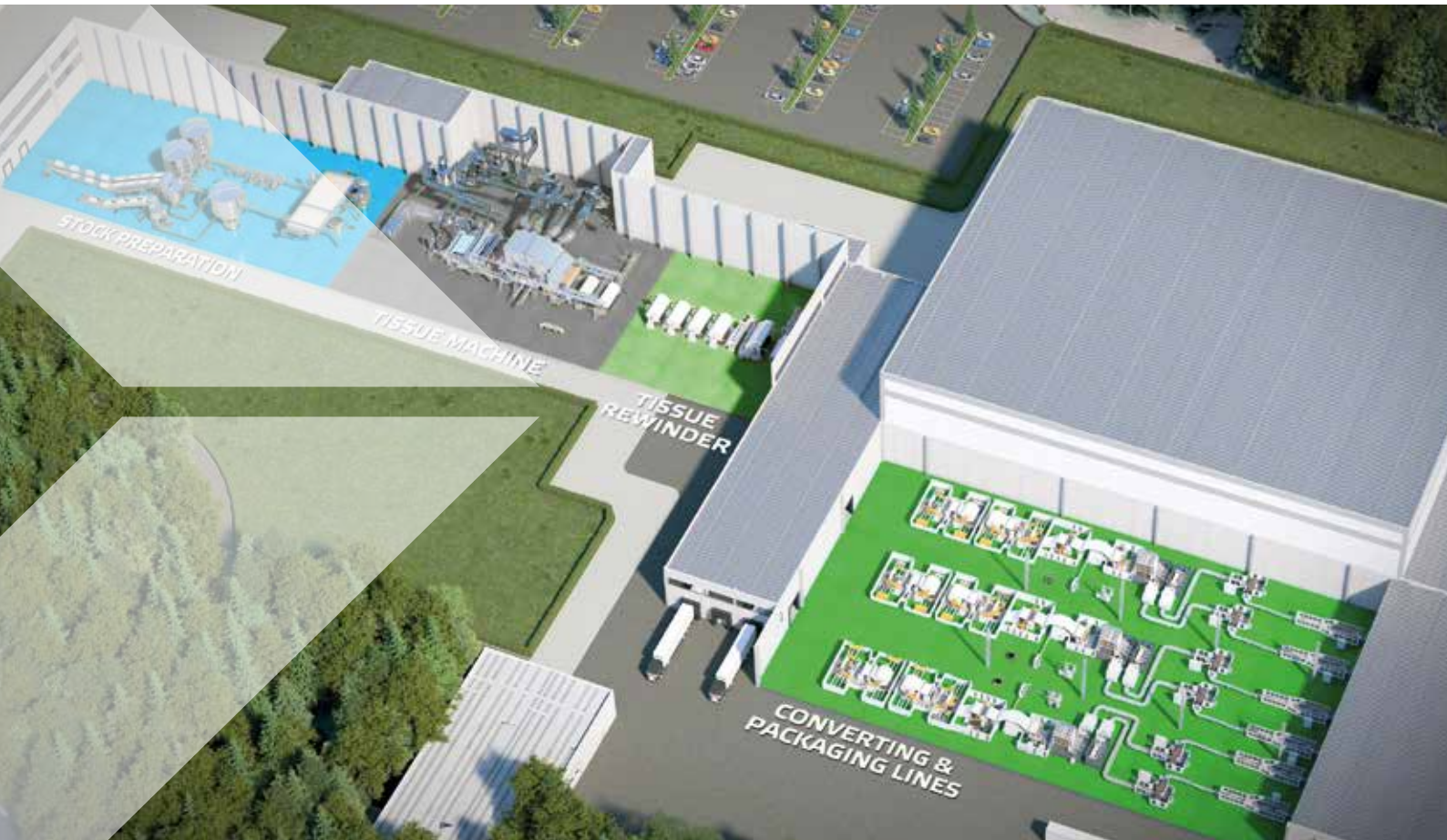
Vinda, Asia Symbol, and Gold East Paper were highlighted for their innovative approaches to industrial wastewater recycling, including process optimization and deep integration with urban infrastructure.



Energy Efficiency Recognition

Hengan (China) Paper was listed among MIIT's top performers in energy efficiency, with consumption levels well below national standards.

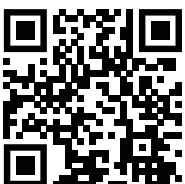
Driving tissue innovation forward



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Anna Boström Mora
Marketing Manager
Tissue Mills Business Unit,
Valmet



Imagine having a deck of powerful solutions at your fingertips, each designed to address specific aspects of your tissue machine's drying section. With the right solutions and energy sources, you can optimize your drying process and reduce emissions.

Drying accounts for approximately 70 percent of total energy consumption in tissue making, with fossil fuels like natural gas, coal, and LPG the primary energy sources. Alternative energy solutions have been developed in recent years to support decarbonization in energy-intensive industries. As tissue makers face increasing pressure to improve efficiency and reduce environmental impacts, choosing the right technology is becoming more critical. It is important to understand how to combine machinery solutions with electric heaters or hydrogen burners to meet your unique needs, whether it's maximizing output, reducing costs, or achieving sustainability targets. But the real question is: Which cards should you play today to stay cost-effective while holding a winning hand for tomorrow?

EXPLORING DIFFERENT SOLUTIONS

Valmet's solutions are suitable for all tissue making processes, from dry crepe and hybrids to through-air drying. Several options for through-air drying machines can be explored further, including vacuum systems, advanced cleaning modules, heat recovery, and the potential to use electric heaters.

Many possible combinations are available for the Valmet Advantage™ DCT® 200 mill, from bale handling to reel. And we have some aces in our pack: Valmet's unique industry-leading products. These include the Advantage™ ViscoNip® press, an innovative press technology which enhances dewatering efficiency, resulting in significant energy savings; the Advantage™ ReDry™, which reuses energy efficiently, boosting drying performance while minimizing energy consumption; and the patented Advantage™ AirCap™ Heli, where the headers are tilted in the cross direction, leading to uniform drying across the sheet, enhancing tissue softness and bulk while reducing energy use. These are powerful solutions,

offering exceptional benefits that can set you apart from the competition.

BEYOND THE ACES: ADDITIONAL OPPORTUNITIES

There are also other optimization opportunities. These include using a larger Yankee to increase the Yankee cylinder's drying, which means less drying is needed on the Yankee Hood. This enables a hybrid hood with a high temperature to be included on one part, and ventilation on the other. This combination can lead to both energy and CO2 savings.

To further expand on this combination, electric heaters for the hood and electric boilers to produce steam can be added. CO2 emissions can be reduced by up to nine kg/tonnes with the first option and 224 kg/tonnes with the second expanded option. Adopting an electric heater to electrify the Yankee Hood requires no significant change in the drying philosophy because the blowing speed and temperature are kept the same.

“Drying accounts for approximately 70 percent of total energy consumption in tissue permaking.”

Electric heat pump solutions are also well worth highlighting. Our studies show that using high-temperature heat pumps can significantly reduce CO2 emissions in the drying section. Traditionally, around 50 percent of the drying energy in a tissue machine comes from steam, produced by burning fuels like gas, liquid, or solids in the boiler, with efficiency ranging from 80 to 97 percent.

High-temperature heat pumps, however, are much more efficient. They recover heat from a low-temperature source, using electricity to produce a higher temperature. This process delivers more heat output than the electricity consumed, achieving efficiencies between 200 and 300 percent for steam production in tissue applications.

HOLDING THE WINNING HAND

With Valmet's comprehensive selection of solutions and our experts as your strategic partners, we can help you on your journey towards zero emissions. The cards you play today may differ from those you'll need in the future, but preparation is key. By choosing the right combination of technologies, you can optimize your tissue drying process, reduce emissions, and stay ahead of the competition.

Hydrogen burners



Valmet Advantage AirCap Heli



Valmet Advantage ReDry



Valmet Advantage AirCap Pro



Valmet Advantage ViscoNip press



Electric heaters



Valmet Advantage Steel Yankee Dryer 22 ft





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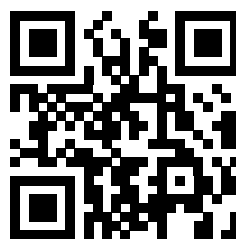
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BOOSTING EFFICIENCY WITH ADVANCED GAS TURBINE POWER GENERATION



The pulp and paper industry is growing in the Middle East, seeing remarkable growth over a relatively small period of time. Driven by population increase within the region, rising disposable income, and expansion in the construction sector, demand has never been higher. Even in an increasingly digital age, paper-based products are proving they're here to stay.

While this represents an exciting opportunity for the region, it also signifies a major challenge. Pulp and paper companies must secure reliable sources of power generation, at a time when governments within the region are pursuing their emissions reduction agendas. Mounting consumer and legislative demands for sustainability are exemplified by Saudi Arabia's Vision 2030 and the Kingdom's pledge to reach net-zero emissions by 2060.

Within this evolving landscape, natural gas – as a lower emission and more efficient source of energy – has an integral role to play. Producing 40% less carbon emissions than coal, liquefied natural gas (LNG) offers heavy industries – which require huge volumes of energy within their operations – an abundant power source that can contribute towards sustainability targets.

Midway through the last decade, Baker Hughes, a leading energy technology company that provides solutions for energy and industrial customers worldwide, recognized the market direction for pulp and paper in the Middle East region and sort to provide prospective customers with a winning formula for their power needs.

The NovaLT™ family, has become the bedrock of the company's client offering, delivering the double benefit of high efficiency and low total cost of ownership.

Baker Hughes' NovaLT™ Power Generation Family helps industrial customers meet sustainability goals while maintaining operational efficiency.

POWER HUNGRY: THE ENERGY CHALLENGE IN PAPER PRODUCTION

With paper production being extremely energy-intensive, large-scale facilities require significant power and steam across multiple stages from pulping to drying. Furthermore, the Middle East pulp and paper sector faces unique challenges due to the region's climate conditions and resource availability, creating a complex landscape for manufacturers seeking both reliability and sustainability.

Baker Hughes' NovaLT™ Power Generation Family has emerged as a key technology helping industrial customers meet sustainability goals while maintaining operational efficiency. The NovaLT™16 and NovaLT™12 Industrial Power Generation package represents a significant advancement in industrial power generation technology, particularly for energy-intensive industries like paper production.

The NovaLT™ Gas Turbine is a multi-fuel solution that can start-up and run on different fuels including natural gas, various blends of natural gas, and even 100% hydrogen, providing flexibility to adapt to specific reliable and sustainable power requirements. This innovative system represents a

significant advancement in energy technology, offering industries the ability to transition seamlessly between conventional and renewable fuel sources. Its advanced combustion system also reduces NOx emissions to just 15 ppm.

STREAMLINE OPERATIONS, BOOST BOTTOM LINE

As well as supporting pulp and paper manufacturers' efforts to reduce emissions through alternative power sources, the system delivers for those seeking to reduce their environmental footprint – and boost their bottom line – by enhancing the efficiency of their operations.

Maximizing the efficiency of a simple cycle operation by 36.8%, the NovaLT™ family's 12 MW capacity range offers leading efficiency even at partial load. Cogeneration power capabilities – also known as combined heat and power – can also improve thermal efficiency by 84%. Indeed, cogeneration has proved particularly valuable for the paper production process: by capturing waste heat from power generation and using it for paper drying and other thermal processes, the system maximizes energy utilization and minimizes waste.

The system's thoughtful engineering delivers additional cost advantages beyond daily operation. With an impressive 35,000 hours mean-time between maintenance intervals and the ability to complete engine replacements within just 24 hours, downtime and service expenses are dramatically minimized. These practical design features translate directly to enhanced reliability and reduced total ownership costs for facility operators.

“Operators are seeking to reduce environmental footprint by enhancing the efficiency of operations.”

The real spark moment for prospective partners is the realization that not only can they guarantee a reliable power source but do so with a cut to their operational overheads. In an industry that tends to operate within fairly tight budgets, no facility manager is going to overlook that benefit quickly.

PROVEN PERFORMANCE IN REAL-WORLD APPLICATIONS

The NovaLT™ family has already demonstrated impressive results within the Middle East. In 2021 a leading paperboard producer based in MENA zone began utilizing the system, helping to deliver sufficient power to support expanded production capabilities.

CO2 emissions were reduced by approximately 15% compared to previous power generation methods, and fuel consumption decreased by approximately 20%, contributing to significant cost savings. Perhaps most importantly, the system has maintained over 99% availability, minimizing costly production downtime.

FROM SINGLE UNIT TO COMPREHENSIVE POWER SOLUTION

The NovaLT™ family's performance has proven so compelling that after experiencing the benefits of the first NovaLT™12 unit, Baker Hughes' client in Saudi Arabia decided to double the production and purchase a second unit as it continued its growth journey. This decision was not solely driven by the proven performance of the first unit but also hinged on the quality customer service provided by Baker Hughes. Putting the Customer front and center, the energy company was able to ensure that any challenges were swiftly managed, providing the guarantees needed for reliable paper production.

Looking ahead, the possibility exists for even more collaboration between the two parties, especially as the pulp and paper industry continues its impressive growth. For instance, further sustainability initiatives, including using production waste to create steam, which could then be utilized by the Baker Hughes turbines to generate additional power, are starting to be explored.

This circular approach represents the future direction of the industry, where waste becomes a resource in an

integrated production system.

Alongside the second unit, the paper producer entered into an 11-year Long-Term Service Agreement (LTSA) with Baker Hughes, ensuring ongoing support for both NovaLT™12 units. This comprehensive agreement includes remote monitoring and diagnostics for continuous performance tracking, preventive maintenance and repairs, control system upgrades to optimize performance, and technical support with access to Baker Hughes' global expertise.

SUPPORTING MIDDLE EAST TRANSFORMATION

The implementation of the NovaLT™12 into facilities across the Middle East has taken place within the unique context of the Middle East pulp and paper industry. The region's paper industry has been growing steadily, with Saudi Arabia being a key player. Historically dependent on imports, the Kingdom has been investing in domestic production capacity to meet local demand and reduce reliance on foreign suppliers.

“The cogeneration capability is valuable in the water-scarce Middle East, as it maximizes energy utilization from each unit of fuel consumed.”

This growth is supported by Saudi Arabia's Vision 2030, which emphasizes industrial diversification and sustainability. However, within the Kingdom's vision the pulp and paper sector faces unique challenges: water scarcity in a water-intensive industry, energy cost optimization despite abundant regional resources, increasingly stringent emissions standards, and intense global competition requiring operational efficiency.

Baker Hughes' NovaLT™ technology can help pulp and paper companies overcome this myriad of challenges by providing efficient, reliable power generation with reduced environmental impact. The cogeneration capability is particularly valuable in the water-scarce Middle East, as it maximizes energy utilization from each unit of fuel consumed.

Lucart's Energy Revolution: Pioneering Efficiency in Paper Production

In a significant move towards sustainable manufacturing, Lucart, a European leader in tissue, air-laid, and machine-glazed paper production, partnered with Baker Hughes to enhance operational efficiency at two of its Tuscan facilities.



The Italian multinational, long recognized as the first in its sector to adopt cogeneration turbines for self-production of electricity and steam, implemented two NovaLT™12 gas turbines to upgrade existing combined heat and power (CHP) plants, with the original equipment remaining as backup.

The NovaLT™12 turbines, designed specifically for industrial applications, deliver up to 12.5 MW of electricity and 24 TPH of saturated steam without requiring post-firing in heat-recovery steam generators. This innovation translates to potential annual energy cost reductions of €3 million while eliminating approximately 7,000 tons of CO2 compared to conventional power solutions.

Since implementation at the Diecimo paper mill, with the Porcari facility following two years later, the results have been impressive. The turbines provide reliable electrical and thermal power while reducing CO2 emissions by 11% and NOx by 40%—equivalent to removing 500 cars from the road annually. Fully designed and assembled in Italy, these turbines feature extended maintenance intervals and fuel flexibility, facilitating future adoption of clean fuels like hydrogen—further cementing Lucart's position as an industry pioneer in sustainable manufacturing practices.

FUTURE-READY POWER GENERATION

The NovaLT™ family's multi-fuel capabilities, including the potential for hydrogen utilization, position users for a more sustainable future. As Saudi Arabia develops its hydrogen economy as part of Vision 2030, installed NovaLT™12 units could potentially transition to hydrogen blends, further reducing carbon emissions.

The Middle East region presents significant opportunities for advanced power generation technologies like the NovaLT™ family, with growing demand for efficient and reliable energy solutions across rapidly developing urban centers. Major developments such as NEOM, Saudi Arabia's futuristic city project, will require sustainable power solutions that can meet ambitious environmental targets while delivering consistent performance in challenging desert conditions.

While industrial applications will continue to be important, data centers represent another growing market for reliable, efficient power generation in the region, with demand surging as digital infrastructure expands across major metropolitan areas.

Saudi Arabia is strategically positioning itself to become a global hub for data centers, leveraging its geographic location between Europe, Asia, and Africa, along with substantial investments in connectivity infrastructure and ambitious plans outlined in its Vision 2030 initiative. The Kingdom's push toward establishing world-class data center facilities requires power generation solutions that can deliver uninterrupted electricity with minimal environmental impact, making lower carbon power generation solutions even more valuable.

Government support programs in both the Middle East and Europe are increasingly providing substantial funding for emissions reduction initiatives, creating new opportunities for the pulp and paper sector to implement lower emissions technologies while maintaining economic viability. These targeted financial incentives, ranging from direct subsidies to tax benefits and low-interest green loans, are accelerating

the industry's transition toward carbon-neutral operations and helping companies overcome the initial capital barriers associated with adopting more sustainable production methods.

A NEW CHAPTER IN SUSTAINABLE MANUFACTURING

The successful implementation of Baker Hughes' NovaLT™12 Power Generation Package across a number of global pulp and paper leaders – including one of the Middle East's largest paperboard producers – demonstrates how advanced technology can help energy-intensive industries balance operational requirements with sustainability goals.

1. Proven technology: With over 100 NovaLT™ units sold globally, the technology has demonstrated its reliability and efficiency across various applications
2. Partnership approach: Baker Hughes' collaborative engagement model, focusing on long-term partnership rather than simply selling products, was crucial to success
3. Sustainability and profitability alignment: The NovaLT™12 shows how environmental benefits and operational improvements can go hand-in-hand
4. Scalable solution: The successful replication with a second unit demonstrates the scalability of the approach

As the pulp and paper industry continues to evolve, particularly in developing regions like the Middle East, the need for efficient, reliable, and sustainable power solutions will only increase. Baker Hughes' NovaLT™ technology represents a proven approach to meeting these needs, helping companies navigate the complex balance between operational excellence and environmental responsibility.

Through this successful implementation, Baker Hughes has established itself as a trusted partner for the pulp and paper industry, providing not just advanced technology but the expertise and support needed to maximize its benefits in real-world applications.



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Floorplan



Exhibitor List

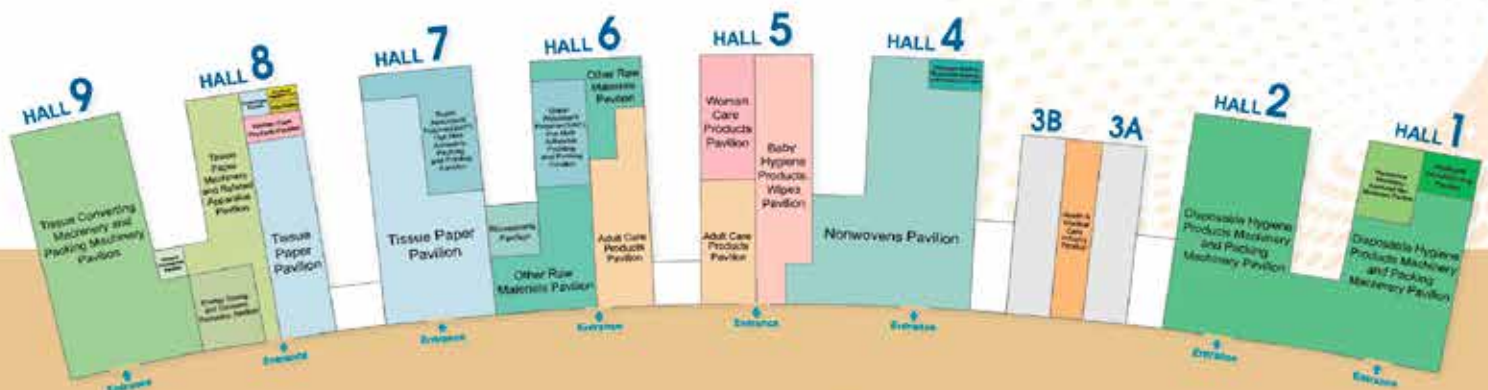


Program for FOCUS Tissue & Hygiene Conference 2025



CIDPEX2025 Video

Join the world's largest exhibition of tissue and disposable hygiene products *See you in China!*



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F-LINE® FINISHING & REPROCESSING LINES



LAMINATION



MEDICAL TREATMENT



SPOOLING



FESTOONING

our commitment to flexibility

ACelli

A.Celli Nonwovens machines and technology are used everyday for the production of commodities and goods for the medical, protective clothing and filtration products market, for industrial and personal care wipes and absorbent hygiene products.

- Complete turnkey solutions for adhesive, thermal or ultrasonic lamination including unwind stands, laminating station and in-line slitting winder.
- Medical treatment lines with non-stop or stop & go unwinder, padder, stenter, oven, and in-line slitting winder.
- Ideal solutions for handling delicate nonwoven materials with high sensitivity to winding parameters.
- Turnkey solutions for unwinding, treatment, winding and packaging.



INNOVATION AT WORK

CUSTOMIZED TISSUE PRODUCTS

weko

YOUR BENEFITS

- Create your USP
- Expand your product range
- Non-contact application
- Reproducibility of the application amount
- Automatic speed compensation
- Easy operation and access



SOFT LOTION



FRAGRANCE



ANTIMICROBIAL



PLY BONDING

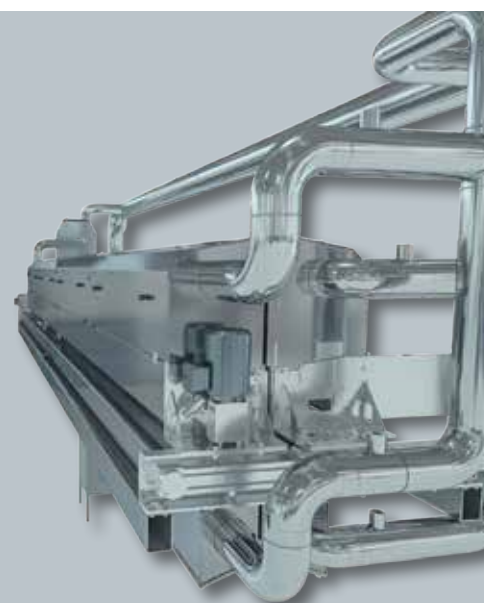


WATER BONDING



RAISE PRINT QUALITY

Due to the application of water based additives like softener, lotion, balm with vitamins, fragrances, natural extracts etc. you can ensure your market position easily and step into the market of high value customized products.



YouTube Video



YOUR UNIQUE SELLING POINT WITH WEKO!

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