



ANDRITZ

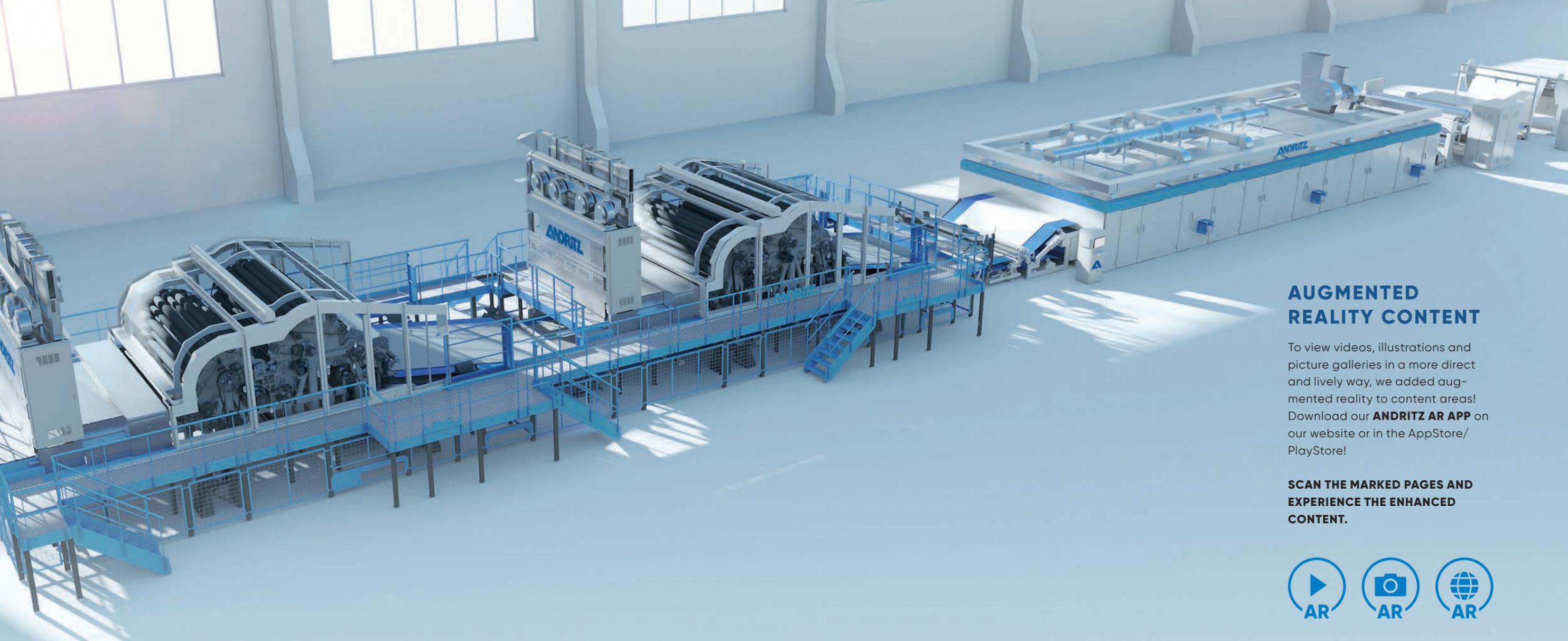
NONWOVEN

**GET INTO
CARE BUSINESS WITH
AIR-THROUGH BONDING**

FOR YEARS TO COME

ANDRITZ

ENGINEERED SUCCESS



AUGMENTED REALITY CONTENT

To view videos, illustrations and picture galleries in a more direct and lively way, we added augmented reality to content areas! Download our **ANDRITZ AR APP** on our website or in the AppStore/PlayStore!

SCAN THE MARKED PAGES AND EXPERIENCE THE ENHANCED CONTENT.



Innovative solutions for hygiene products

ANDRITZ offers you customized solutions: For the production of hygiene products, we can deliver a tailor-made, Air-Through-Bonding (ATB) process. It makes use of the vast expertise that ANDRITZ has to offer in a wide range of hygiene nonwovens technologies, such as web forming and finishing (spunlace, spunlaid, spunjet, wetlace), and converting (baby diapers, feminine hygiene, adult incontinence).

COMPLETE ATB LINES TO MEET CUSTOMERS' NEEDS

The ANDRITZ air-through bonding lines deliver all nonwovens fabric characteristics for hygiene end uses, such as top-sheets and acquisition distribution layers, and back sheets. The well-known ANDRITZ carding machines are the key to success in achieving perfect web uniformity and comfort.

With the ANDRITZ air-through bonding line, you can benefit from high production capacity and high-performance fabrics from 16 to 80 gsm made from bi-component fibers produced at high speeds of up to 250 m/min.

YOUR BENEFITS

- ANDRITZ expertise in hygiene market
- Production speed of up to 250 m/min
- Perfect web uniformity
- Versatility of fibers
- Technical center at CETI (European Center for Innovative Textiles)
- Expertise in testing and converting

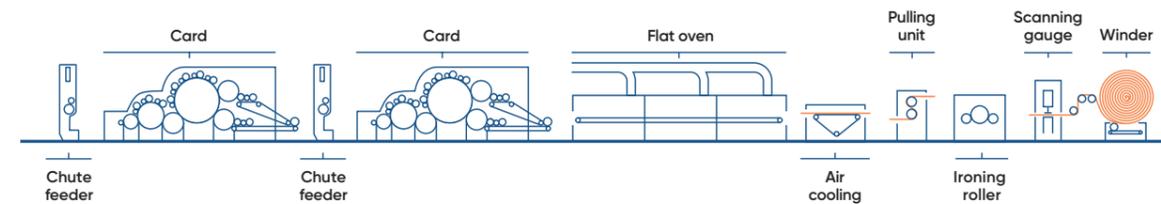
A wide range of possibilities

Hygiene products of tomorrow: To open niches in the hygiene market, you need innovative production lines with new capabilities. At ANDRITZ, we offer you cutting-edge technology that opens up new possibilities. As a complete system supplier, we always have the right customized solution to meet your requirements perfectly.

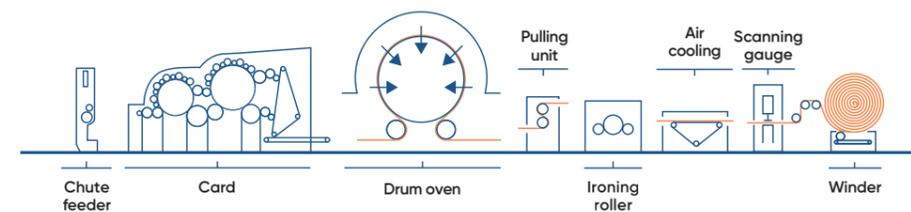
	Fabrics	Line speed	Working width	Capacity	End uses
eXcelle range	16 – 80 gsm	up to 250 m/min	5.1 m	12,000 t/a	Top sheets, ADL, back sheets
aXcess range	16 – 80 gsm	up to 150 m/min	3.75 m	5,500 t/a	Top sheets, ADL, back sheets

MULTIPLE LAYOUT CONFIGURATIONS

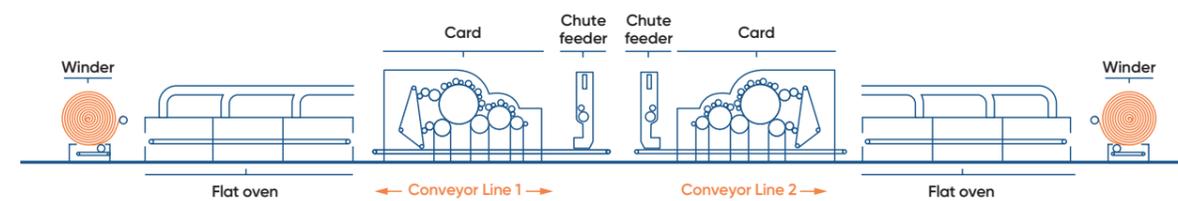
Layout configuration with 2 cards and a flat oven



Layout configuration with a drum oven



Dual layout configuration



PRESENT IN OUR EVERYDAY LIVES
In daily life, we find products using air-through bonding technology everywhere we look. The hygiene market requires products with a high level of uniformity, softness, bulkiness, and tensile strength. Due to population growth and aging as well as the rise in the standard of living, these products respond perfectly to the quality level requested for baby diapers, feminine hygiene or adult incontinence.



Give your nonwovens a perfect start

It all starts with fibers: To spread them evenly on the way to the web former, you need a carefully designed process. With opening, blending (APC), feeding and carding technology from ANDRITZ, your nonwovens benefit in every step.



Opening-blending unit (APC)

OPENING-BLENDING

Choose from a complete range of equipment for opening and blending to feed the web forming line, with high or medium production capacity, according to your specific needs. It includes a weighing hopper, pre-opener, blender, and fine opener.

The high quality level of the ANDRITZ equipment allows optimum fiber opening, a quick fiber batch change, an accurate blending ratio, and substantial cost savings.

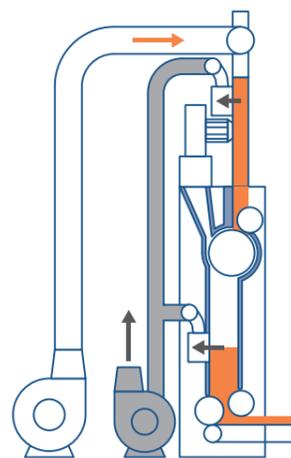
CARD FEEDERS

After the opening-blending step, fibers are directed pneumatically to the card feeder, which delivers the appropriate quantity of fibers to the card.

ANDRITZ Nonwoven offers you multiple, different types of card feeders to match the required production capacity while feeding the card evenly. Fibers are processed by the Thibeau Chute Feed (TCF-X).



TCF-X: Self-regulating fiber distribution system in cross direction



Option: Dedusting system
 — Air + dust
 — Fibers

Complete range of cards

ANDRITZ has the matching card for you: With carding power alternatives (single or double card set-up), different web structure solutions, and different number of doffers, we always find the matching solution.

Alternatives for card feeding sections

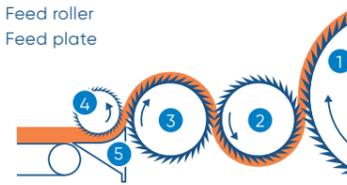
"R" feed plate

- 1 - AVT breast roller
- 2 - RTB roller
- 3 - Feed roller
- 4 - Feed plate



"S" feed plate

- 1 - AVT breast roller
- 2 - COM transfer roller
- 3 - Licker-in roller
- 4 - Feed roller
- 5 - Feed plate



Alternatives for carding power

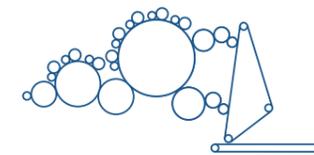
R 35 PPCC



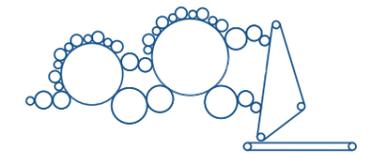
S PP 5 CC



R 35 PP VarioWeb

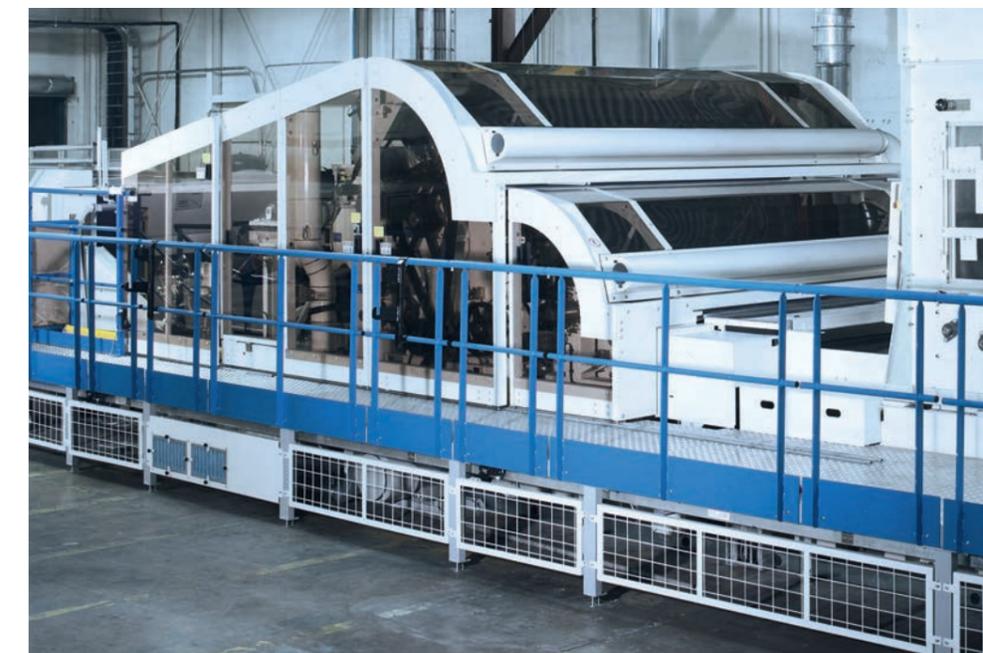


S 3 PP 5 VarioWeb



YOUR BENEFITS

- Customized to meet your requirements for fiber range, throughput, web qualities, and so on
- Consistent web qualities
- Air management system
- Enhanced visibility
- Easy accessibility for maintenance



High-performance eXcelle card

State-of-the-art in bonding

The oven is a very important machine in the ATB process: It must bind the still fragile and sensitive carded web smoothly into a stable nonwoven product – without reducing its high-lofted character and superior softness.

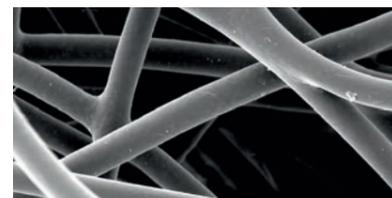
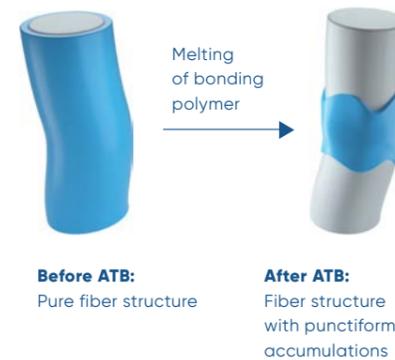
Especially the transfer areas between the individual machinery units mean that there are neuralgic points.

Just as critical as the well-adjusted heating-up stage is a gentle cooling-down phase followed by various finishing steps – because only then does the nonwoven web permanently conserve the desired resiliency and final characteristics.

With its expertise and highly developed machinery components, ANDRITZ always offers you the right solution for this challenging process.

BONDING PROCESS

Once in the oven, the hot air activates the low-melt polymer inside the fiber matrix. It flows towards and gathers at the point of fiber contacts, where these accumulations then form the bonds between the individual fibers.



Bonded fiber matrix after ATB

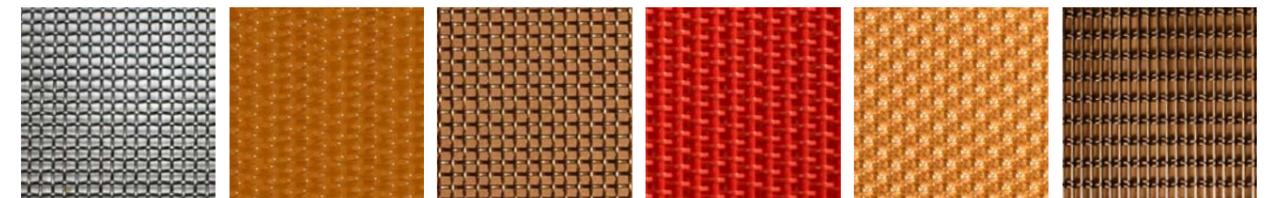
TWO HIGHLY SOPHISTICATED OVEN SYSTEMS

The fragile structure of the un-bonded nonwoven web calls for a suitable transport medium: this can be either a flat oven system using an air-permeable conveyor belt or an Omega oven system with a perforated and / or sieve-fabric-covered drum surface.

ANDRITZ's portfolio can offer you the flat as well as the Omega design, both as best suitable for covering all your requirements as a hygiene nonwoven producer. Depending on your demand, the

ovens can be equipped with either indirect heating (electrical power, thermal oil) or direct heating (natural or liquid gas). A common feature of the flat and Omega designs is the one-sided, air-through ventilation, which is typical of air-through bonding processes in the hygiene market.

The new ANDRITZ SoftJet air guidance offers you an additional advantage in flat oven systems. Even the most sensitive fiber blends and matrix structures retain their high-lofted character and superior softness after the air-through bonding process.



ANDRITZ offers a wide variety of surfaces for the web transport system.

YOUR BENEFITS

- Highest uniformity of temperature and air-flow
- Superior softness with SoftJet technology
- Easy access to main machinery components
- Modular system
- Flexible due to the different heating systems



High-lofted product and premium softness



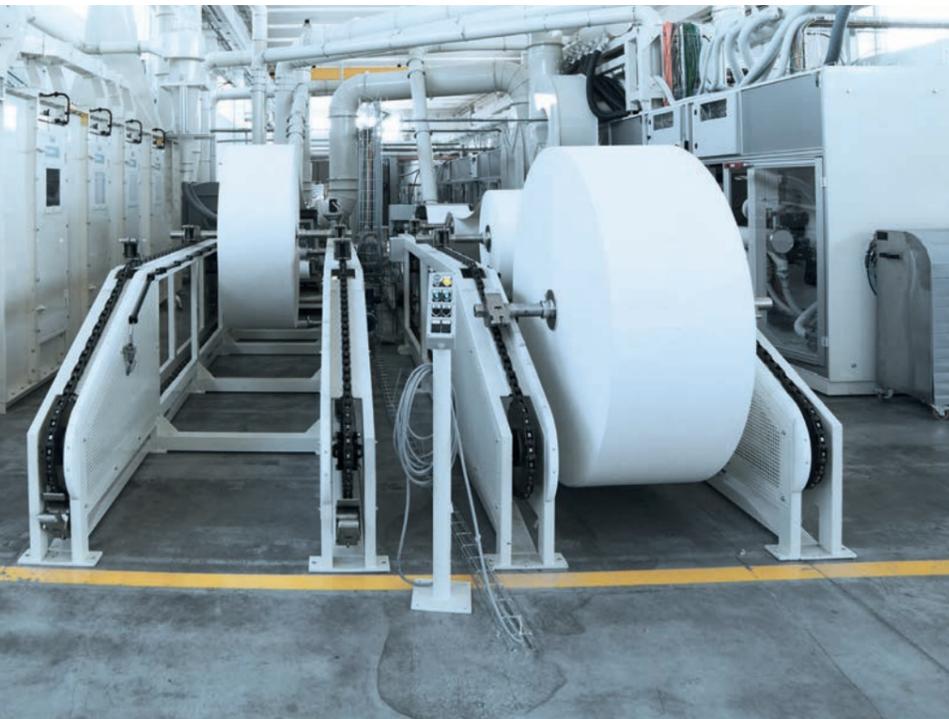
Flat oven



Omega oven

Benefit from decades of converting expertise

Exciting advantages for your converting business: If your business is centered around hygiene products, ANDRITZ Diatec is your ideal partner. The leading supplier of converting machines for hygiene products enables you to benefit from the latest innovations from R&D.



ANDRITZ Diatec converting line for hygiene products

TOP-OF-THE-RANGE CONVERTING

Founded in 1992, Diatec has developed many innovations and market-leading features. As part of ANDRITZ Nonwoven, it adds converting competence to the web bonding and finishing processes for sanitary products. In addition, the broad service range ensures efficient production at all times.

Today ANDRITZ Diatec is capable of serving the hygiene market with a full range of sanitary products and technology solutions for feminine, baby, and adult care.



View video footage of this brochure in our augmented reality app!
FOR FURTHER INFORMATION SEE PAGE 3

CUTTING-EDGE AT CETI

CETI, the European Center for Innovative Textiles, is a research center for new textile applications and is located in Lille, France. ANDRITZ has been supplying the institute with the latest nonwoven technologies, including air-through bonding. The air-through bonding pilot line provides CETI and its customers with an R&D platform for both flat and Omega ovens for prototyping the fast growing trends in hygiene applications.



Flat oven of the ANDRITZ air-through-bonding line at the CETI

Developing your next success

Top-quality products: ANDRITZ has combined its drylaid process expertise with its process know-how in drying. We are the only line manufacturer to offer both bonding solutions for ATB: flat or Omega ovens. By mastering both technologies, we can help you obtain top-quality products.

ANDRITZ TECHNICAL CENTERS

In order to provide you with full service and support in drylaid technology (needlepunch and spunlace), ANDRITZ has two technical centers to conduct a full range of trials. You can rely on them to develop tomorrow's products. ANDRITZ process experts support you in your R&D during trials with your own fibers, helping you to improve your equipment efficiency.

In the ANDRITZ needlepunch technical center, the pilot line is designed to run short and long staple fibers with an even card web aspect despite throughput capabilities in excess of 500 kg/h/m.

The pilot line of the ANDRITZ spunlace technical center is able to run at up to 500 m/min. Tests can be conducted in-line with the TT card or off-line with an unwinder.



View video footage of this brochure in our augmented reality app!
FOR FURTHER INFORMATION SEE PAGE 3



ANDRITZ technical center in Elbeuf, France



ADL slitting



Perfect web uniformity



GET THE MOST OUT OF YOUR INVESTMENT

At ANDRITZ Nonwoven, we know that your business depends on satisfied customers and efficient processes. That's why we support you in every aspect of your nonwoven production. Take advantage of technology that lets you produce consistent quality for decades to come. Profit from the highly efficient use of energy and raw materials that our production provides. You can rely on our responsive service teams who will protect your investment and optimize your processes. Experience how innovative approaches and digital services give you more control than ever before. With ANDRITZ, the leading supplier for the nonwovens market, you get the most out of your investment.

FRANCE

ANDRITZ Perfojet SAS
Montbonnot, France
p: +33 4 76 52 23 11
perfojet@andritz.com

ANDRITZ Asselin-Thibeau SAS
Elbeuf, France
p: +33 2 32 96 42 42
asselin-thibeau@andritz.com

GERMANY

ANDRITZ Küsters GmbH
Krefeld, Germany
p: +49 2151 34 0
kuesters@andritz.com

CHINA

ANDRITZ (China) Ltd.
Wuxi branch office
Wuxi, P.R. China
p: +86 510 8536 1269
nonwoven-china@andritz.com

INDIA

ANDRITZ Technologies Pvt. Ltd.
Chennai, India
p: +91 44 4293 9393
nonwovenservice.india@andritz.com

ITALY

ANDRITZ Diatec
Collecorvino, Italy
p: +39 085 82060-1
diatec@andritz.com

USA

ANDRITZ Inc.
Spartanburg, USA
p: +1 864 587 4848
nonwoven-america@andritz.com

ANDRITZ SHW Inc.
Torrington, USA
p: +1 860 496 8888

[ANDRITZ.COM/NONWOVEN](https://www.andritz.com/nonwoven)

ANDRITZ

All data, information, statements, photographs and graphic illustrations in this leaflet are without any obligation and raise no liabilities to or form part of any sales contracts of ANDRITZ AG or any affiliates for equipment and/or systems referred to herein. © ANDRITZ AG 2019. All rights reserved. No part of this copyrighted work may be reproduced, modified or distributed in any form or by any means, or stored in any database or retrieval system, without the prior written permission of ANDRITZ AG or its affiliates. Any such unauthorized use for any purpose is a violation of the relevant copyright laws. ANDRITZ AG, Stattegger Strasse 18, 8045 Graz, Austria. KNW.atb.02.eng.03.20

