

A green plant seedling with several leaves is growing out of a white, textured nonwoven wipe. The wipe is folded and has a faint 'ANDRITZ' logo embossed on it. The background is a light gray gradient with a white diagonal line.

NONWOVEN
SUSTAINABLE FUTURE
WITH ANDRITZ

TECHNOLOGIES FOR
BIODEGRADABLE WIPES

ANDRITZ

ENGINEERED SUCCESS



VARIOUS APPLICATIONS
Produce a wide range of bio-degradable wipes from 100% sustainable fibers:

- Moist toilet tissue (MTT)
- Baby wipes
- Cleaning wipes
- Dispersible wipes
- Disinfection wipes
- Napkins
- Premium tissue



Invest in the future and a greener environment

MARKET SITUATION AND OUR MOTIVATION

Generally speaking, the wipes market is growing steadily worldwide. This is mainly driven by the strength of the economy, the increasing standard of living, and the constant introduction of new products. A very frequently debated topic is the so-called ban on plastics and the threat to our environment. This is why the use of natural raw materials and biodegradability have become one of the major targets for wipes producers.

This rising threat of plastic pollution and stricter regulations from governments and trade associations have propelled us to search for ideal production technologies for fully biodegradable and plastic-free wet wipes. Such processes are achieving high performance entirely with natural and/or renewable raw materials.

The added benefit of using a blend of fibers, like wood pulp, short-cut cellulosic fibers, viscose, cotton, hemp, bamboo or linen, without chemical additives results in a 100% sustainable fabric, thus meeting customers' needs exactly as well as supporting the strong tendency to move away from plastics and synthetics.

A SINGLE SOURCE FOR YOUR PRODUCTION EQUIPMENT

We are the only supplier providing complete production processes for biodegradable wipes from just one source. Our system supply services are cost-efficient, flexible, and reliable, and they cover the entire spectrum. From stock preparation/opening and blending, forming, bonding to drying, you benefit from comprehensive process know-how, ensuring all components are in harmony.

RESPONSIBILITY OF THE ENTIRE INDUSTRY

However, this topic concerns not only us as machinery supplier, but also the entire industry and supply chain, comprising raw material suppliers, roll goods producers, finishing and converting companies, retailers, and finally the end user. Activities by supporting industries help to create awareness in all parties and can start to change how end users behave. Together, as one industry, we can create new production technologies to focus on a greener environment and a brighter future.



- Institutes involved/suppliers to wipes production
- Supply chain for wipes production
- Activities by supporting industries

High value with neXline spunlace

Trust a global partner: Today, ANDRITZ is an active player in most of the world's spunlace production. In order to meet the market demands, ANDRITZ offers you a wide range of complete spunlace lines combining performance, efficiency, and profitability especially designed for biodegradable wipes.

The neXline spunlace eXcelle is the premium line layout, combining very high capacity of up to 25,000 t/a with low energy consumption, and able to produce all types of spunlace roll goods. For biodegradable wipes, you can use natural raw materials such as viscose, bamboo, hemp, or cotton. This creates a high-value wipe providing top performance.

Softness, drape, comfort, conformability, high strength, and the fact that they contain no chemicals are the major characteristics of spunlace nonwovens.

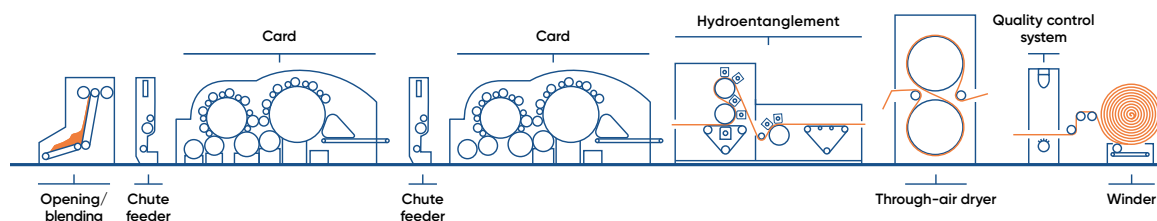
HIGH-EFFICIENCY PROCESS FOR NATURAL FIBERS

As a result of our unique experience in the spunlace industry and processing of natural fibers, we offer cards from very delicate to powerful performance, optimized Jetlace hydroentanglement units, and high-efficiency dryers. All components challenge the usual productivity limits perfectly when processing these fibers.

Moreover, we have developed our

own technology for water filtration and dedicated to applications using natural fibers. This technology is a fully integrated part of the spunlace process.

Hydroentanglement is a sustainable bonding method that achieves perfect results without any need for chemicals, also for other processes like Wetlace™, carded-pulp or carded-airlaid lines.



neXline spunlace for the production of high-value natural wipes

FEATURES

- Capacity: up to 25,000 t/a
- Line width: up to 4.8 meters
- Line speed: up to 400 m/min
- Fabric from 18-120 gsm
- Sustainable fibers: viscose, bamboo, hemp, cotton



Dispersibility with neXline wetlace

Set new standards for biodegradable and dispersible wipes:

The ANDRITZ Wetlace™ process combines wet forming and hydroentanglement. This industrially proven process is ideal for producing biodegradable and dispersible wipes from 100 % natural and/or renewable raw materials without chemical binders.

DISPERSIBLE WIPES WITH NEXLINE WETLACE

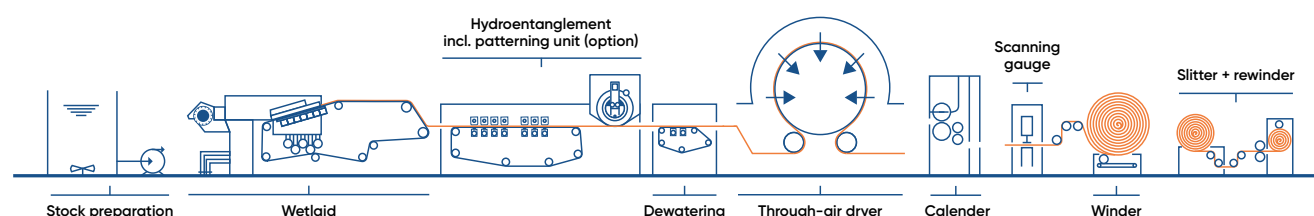
State-of-the-art moist toilet tissue wipes (MTT) are made from fully biodegradable fibers, have adequate strength while in use, and then disperse quickly in municipal sewage systems. The response to these requirements is the ANDRITZ Wetlace™ process.

Furthermore, the use of wood pulp results in cost-effective production because the raw material accounts for approximately 70 % of the total production costs.

WOOD PULP – THE IDEAL RAW MATERIAL FOR SUSTAINABLE WIPES

We have great expertise in processing pulp as a raw material. With decades of comprehensive R&D and a large installed base of pulp production lines, we can safely say that pulp is part of the DNA of ANDRITZ.

In addition, wood pulp is more cost-efficient than viscose or other natural fibers and perfect for dispersing in water due to the shorter fibers it contains.



neXline wetlace for the production of dispersible wipes

FEATURES

- Capacity: up to 30,000 t/a
- Line width: from 1.5 to 4 meters
- Line speed: up to 350 m/min
- Future-oriented, high-end technology for more sustainability, provided entirely from a single source
- Sustainable fibers: wood pulp, short-cut cellulosic staple fibers such as viscose, cotton, hemp, bamboo or flax

Natural and efficient with neXline CP and neXline CPC

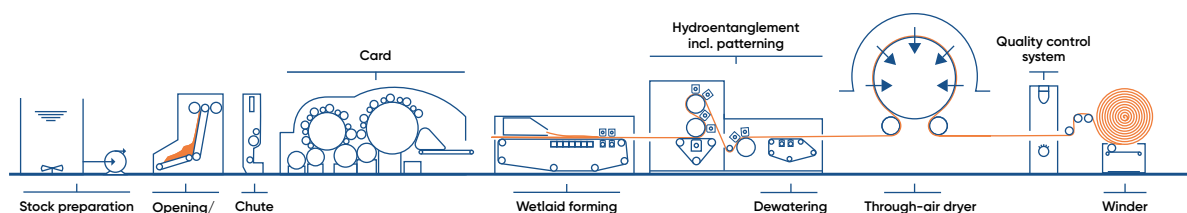
Innovative processes: We offer fully engineered production lines integrating the right equipment for so-called carded-pulp (CP) and carded-pulp-carded (CPC) lines: cost-efficient, flexible, and reliable. These processes combine the benefits of two technologies: Wetlace™ and spunlace. Natural fibers can be processed smoothly and generate a high-performance and cost-efficient wipe.

THE CARDED-PULP (CP) PROCESS

The neXline CP is equipped with state-of-the-art stock preparation, including approach flow and fan pump, opening and blending, carding including chute feed, a wetlaid forming unit, hydroentanglement including optional patterning, filtration unit, dewatering, through-air drying and end-of-line equipment. All components are perfectly arranged to produce a first-class biodegradable wipe with two layers.

FEATURES

- Capacity: up to 25,000 t/a
- Line width: up to 4.8 meters
- Sustainable fibers: wood pulp and other cellulosic (staple) fibers

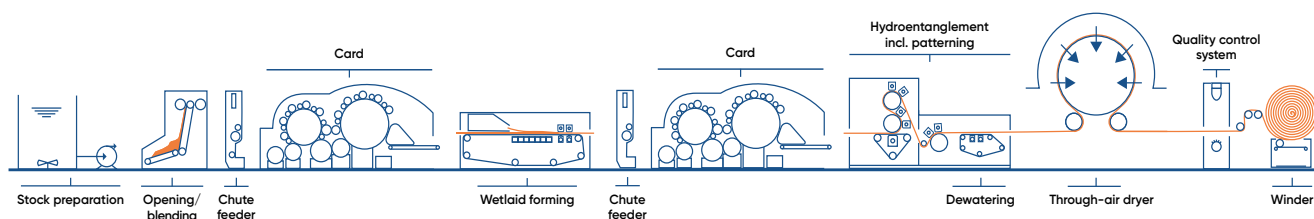


neXline CP for carded-pulp wipes

THE CARDED-PULP-CARDED (CPC) PROCESS

In order to create a three-layer wipe, an additional card can be added to the carded-pulp process. This opens the door to fiber mixtures with even higher added value and offers high and

stable functions while using only biodegradable raw materials. A pulp layer in the middle is perfectly surrounded by the carded, e.g. viscose, layers and hence offers additional properties.



neXline CPC for carded-pulp-carded wipes



Break new ground with ANDRITZ technical centers

Create ideas: Continuous research and development targeting your needs in an ever more demanding market. Create innovations and experience new products at our technical centers for wetlaid and spunlace processes. Our skilled process and product experts are happy to provide the necessary support.

FIRST TEST, THEN INVEST

Conduct trials in our technical centers before making an investment. We offer you the opportunity to test process and product parameters on our wetlaid and spunlace pilot lines or even create completely new products. This will help you to get the most out of your investment.

OPTIMIZE PROCESSES AND PRODUCTS

Being dedicated to high quality and innovative production technologies propels us to seek ideal solutions – perfectly suited to our customers' needs. We analyse your processes and products together with you and develop their potential for optimization.

EXPERIENCE NEW PRODUCTS

Test your new developments on our state-of-the-art wetlaid and spunlace lines. It is the perfect opportunity to experience new products that will enable you to access different markets.

BENEFIT FROM COMPREHENSIVE TRAINING

Seize the opportunity to join our product and process training sessions. Our experienced staff provide the best and unique know-how drawn from our installed base and continuous R&D. Learn how fibers become fabrics, develop your own products, and find out the latest news on the different processes.



Spunlace pilot line at the technical center in Montbonnot, France



Wetlaid pilot line at the technical center in Krefeld, Germany



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.

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